

***2021 NCSBN Scientific Symposium - State Policy Change and Organizational Response: Expansion of NP Scope of Practice Regulations in New York State***  
**Video Transcript**

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**Event**

2021 NCSBN Scientific Symposium

More info: [ncsbn.org/15185.htm](https://ncsbn.org/15185.htm)

**Presenter**

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- [Woman] Dr. Lusine Poghosyan is an internationally recognized health services researcher. Dr. Poghosyan is the principal investigator on multiple-research projects including those funded by the National Institute on Minority Health and Health Disparities, the Agency for Healthcare Research and Quality, and the National Institute on Aging. Dr.

One of the most critical solutions and strategies that has been getting a lot of attention during the past decade is the growing workforce of nurse practitioners. Institute of Medicine report made it clear that advanced practice registered nurse workforce, particularly nurse practitioners, can play a critical and a significant role, helping the country to meet the demand for primary care services.

Nurse practitioners are primary care providers who are trained, and educated, and capable of delivering safe, high-quality primary care services. This workforce had grown significantly in the past, and projections show the workforce is going to almost double between 2013 and 2025.

We have seen that from 2007 and 2019, the workforce grew significantly, and by 2025, NPs will comprise about 27% of all primary care providers. Other primary care providers are physicians and physician assistants. While we are optimistic that this growing workforce can help the country to meet the demand for primary care services, there are many state, and policy, and organizational barriers that affect the optimum utilization of nurse practitioners.

One particular example is the state-level scope of practice regulations across the country. We know that many states impose unnecessary restrictions on NP practice by requiring NPs to have a supervisory or collaborative relationship with physicians to provide care. So these are state

scope of practice regulations that are determined at the state level may also affect employers, may also affect organizations that hire NPs, employ NPs.

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widely used measure to assess nurse practitioner work environment is the Nurse Practitioner Primary Care Organizational Climate Questionnaire.

It has been used by many researchers to assess the work environment of NPs. The instrument has 29 items, and it measures work environments with 4 subscales: nurse practitioner-physician relations, nurse practitioner-administration relations, independent NP practice and support, and professional visibility. Research shows that these four subscales are important domains of NP work environment.

For example, some of the questions in NP-physician relation was asking NPs to evaluate the communication, the teamwork that nurse practitioners had with physicians. NP-administration relation items are asking similar questions, whether NPs receive necessary support from administration, necessary information from administration.

And the professional visibility, which was an interesting subscale, it asks nurse practitioners how well their role is defined or visible within their organization. As we know, with the growth of NP workforce, many organizations were new to nurse practitioner practice.

So we collected the survey data from nurse practitioners, and we merged 2012 and 2018 survey data to achieve the aims of this study. So in this study, we had two independent variables, which were study time, one was 2012 and 2018, and nurse practitioner experience level within employment setting.

Remember that NP modernization act is supposed to impact NPs who have a little bit more than two years of experience. So we categorize NPs, those equal or less than three years, because that's what our variable was asking, NPs between one to three years of experience. And we also had a study variable that was capturing the study time, three years before the policy implementation and three years after the policy implementation.

Our dependent variable in the study was NP work environment. NP work environment was measured by the four subscales at the nurse practitioner organizational climate questionnaire, and we looked at the NP-physician relations, we looked at NP-administration relations, we looked at the independent practice and support, and professional visibility subscale.

So we wanted to see if this work environment have changed between 2012 and 2018. So we conducted a descriptive analysis. We compared the characteristics of the sample in 2012 and 2018 to see if the NP workforce still looked like similarly. And then we built multiple linear-regression models to assess the relationship between year of the survey administration, which is proxy for the before and after policy implementation and nurse practitioner work environment.

In this table, we present some of the demographic characteristics of our sample. As you see, in 2012, 278 nurse practitioners completed the survey. In 2018, 348 nurse practitioner completed the survey. Most of the average age of NPs in our study was about 52 to 53 years.

Majority were female, almost 90% of our participants were female, and the workforce were significantly white. And the difference was that, in 2018, there were more nurse practitioners with a DNP or other doctoral degree.

So that was one of the biggest changes we observed in the demographic characteristics of our sample. In this table, we also provide some information about NP work and practice characteristics. Here, we see that NPs practice in rural, urban, suburban, and there were some differences in between two years. And we also see that, in 2012, the largest proportion of NPs were practicing in physician offices, while in 2018, more NPs were employed in practices affiliated with hospitals or some kind of medical centers.

In this chart, we compare nurse practitioner work environment over time. So we computed in scores on each subscale of NPPCOCQ. The dark orange color is the 2012, the red represent 2018. What we see here is, it appears from this bar chart, that nurse practitioner work environment was significantly better in 2018 than in 2012.

Particularly, there was a significant difference between NP-physician relations, independent practice and support, and professional visibility. And also, these subscales were much highly rated by NPs than NP-administration relations. As you see, the lowest mean scores reported by NPs were on NP-administration relation, and this is an interesting and consistent finding across all of the studies we have done, that NP-administration relation typically gets much lower rating from NPs than other aspect of their work environment.

In this bar chart, we assessed whether there was a difference in work environment in those years between experienced and not experienced NPs, those NPs with less than three years of experience and those who have more than three years of... The lighter color is NPs with less than three years of experience, and the darker bar chart is NPs with more than three years of experience.

What we are seeing here, that it seems NPs with little bit more experience report better work environment. Yet, some of the differences are not significant. There is no significant difference in NP-administration relations. It seems like, in 2012, both experienced and non-experienced NPs were reporting similar type of relationship.

There was some improvement in NP-physician relationship. It appears that experienced NPs are telling us that their relationship with physicians is better with experience. The only significant difference we observed was in professional visibility. We noticed that, in 2012, experienced NPs were telling us that their role is more understood within their employment setting, their role is more visible.

You know, while we saw some minor differences in the scores, we did not observe major differences between experienced and non-experienced nurse practitioners. After the descriptive work, we developed our multiple linear-regression model to demonstrate the relationship between scope of practice, which is year 2012 and year 2018, and nurse practitioner work environment.

As you'll see in our model, we control the model for NP's gender, age, length of time in the current primary position, location, whether NPs worked in rural, urban, or suburban, practice setting, whether it was community health center, hospital-based clinic, and also average hours of work. So controlled for all those variables, what we observed was that the work environment for nurse practitioners was

We notice that, particularly, improvements were noticed in IPS, independent practice and support, professional visibility, and nurse practitioner and physician relation subscales. After the policy change in New York State, these three domains of nurse practitioner work environment in New York improve.

There was no significant difference in nurse practitioner-administration relation between 2012 and 2018. And our model also demonstrated that, controlling for potential covariates, we did not see any difference in any of the mean subscale scores for the work environment measures between experienced and less experienced NPs.

Our model show, work environment improved from 2012 to 2018, yet there was no difference in the

We enjoyed working together in our team to do the research that we found timely and important to change the scope of practice policies, to provide more evidence that it's important for the states to create a positive policy environment, so health care organizations can create better environment within their clinics and practice settings that employ nurse practitioners.