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

Event
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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.

Poghosyan is the chair of the Primary Care Expert Panel at the American Academy of Nursing and the past chair of the Interdisciplinary Research Group on Nursing Issues at AcademyHealth. She is a fellow of the American Academy of Nursing and New York Academy of Medicine. She is also The Stone Foundation and Elise D. Fish professor of nursing at Columbia University.

- [Dr. Poghosyan] Hello, everyone. I am Lusine Poghosyan. I'm a professor at Columbia University School of Nursing. And it's my great pleasure to be part of this symposium today and share with you all some of the work we have done at Columbia University School of Nursing with support from NCSBN.

The study I will present is entitled "State Policy Change and Organizational Response: Expansion of Nurse Practitioner Scope of Practice Regulation in New York State," the study I have conducted with my wonderful colleagues Affan Ghaffari, Jianfang Liu, He Jin, and Grant Martsolf. It is not a secret that the primary care demand is growing in United States because of aging population, growing chronic disease burden, and insurance expansion.

Many patients need access to timely, high-quality, cost-effective primary care services, yet our health care system is often unable to meet the needs of these patients. Many solutions have been proposed by policymakers, researchers, administrators, and clinician to really increase the capacity of primary care system and the overall health care workforce to meet the demand for growing primary care services.

One of the most critical solutions and strategies that has been getting 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-level policies that every state has its own regulation.

In addition to state-level barriers, organizations employing NPs also create barriers for the optimal practice of nurse practitioners. Very often, NPs do not have access to necessary organizational resources, there is lack of clarity in their role, and they have challenging relationships with practice administrator or management.

Right now, nurse practitioner scope of practice policies are categorized into three main categories. There are many factors that are part of this definition, yet in general, in full scope of practice states, nurse practitioners can deliver care independently without involvement of any other clinicians, and patients can have access to care delivered by nurse practitioners without further restrictions.

Other states have a reduced scope of practice policy, which requires NPs to have some kind of collaborative relationship with a physician to be able to deliver care to their patients. And the most restricted states have restricted scope of practice regulations which require physician supervision. So physicians have to supervise nurse practitioners so NPs can deliver care to patients.

And this is one of the most recent maps that demonstrate the scope of practice regulations in the United States. The most recent state that changed its scope of practice regulation is Massachusetts. But in this study, I will speak about New York State.

So we know that full scope of practice states create optimal environment for nurse practitioners to deliver care to their patients. Our research is clear that full scope of practice is related to better patient outcomes, better access for patients to high-quality, safe care, while reduced and restricted states limit patients' access to timely, high-quality care.

And many researchers have conducted studies to produce evidence about the importance of allowing nurse practitioners to practice fully and limiting restrictions on NP practice. Yet, we also know that these

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

Yet, we know very little how the state-level policies impact the organizations and, particularly, the work environment of NPs. We know that work environments are critical for clinicians to be able to deliver high-quality, safe patient care, thus, it is important for us to understand the impact of state-level policies on the work environment of nurse practitioners within their employment settings.

In this study, I will talk about New York State which implemented nurse practitioner modernization act in 2015. Before 2015, all nurse practitioners in New York were required to have a written practice agreement with physicians.

Yet, New York State, whilst facing unequal distributions of primary care provider across the state, many residents of New York in rural and underserved areas were lacking access to high-quality care. So in 2015, New York State passed the policy called nurse practition modernization act, which removed the required written practice agreement between physicians and experienced nurse practitioners, those who have 3,600 hours of clinical practice, which is about 2 years of experience.

So starting from 2015, in New York State, nurse practitioners with more than 2 years of experience are able to deliver care without requirement of written practice agreement with physician. So this opportunity, this policy change, created an opportunity for our research team to assess and understand whether this policy change had an impact on nurse practitioner work environment, what changes we observed after this policy change within the work environment.

So we have designed a study and proposed to examine nurse practition work environment three years before the policy change in New York State and three years after the policy change. So we were fortunate enough that we had survey data already collected from nurse practitioners in 2012 about their work environment.

Building on that survey, we designed a cross-sectional survey to collect data from the same sample of nurse practitioners in 2018, which would allow us to see if the work environment in New York State changed after a 2015 policy expansion. So in 2012, we had data from 278 primary care nurse practitioners in New York State who were recruited from the membership list of New York nurse practitioner association membership list.

New York nurse practitioner association was wonderful partner with us. They helped us to recruit nurse practitioners. They send online surveys to their members, asking them if they were primary care nurse practitioners, and only primary care nurse practitioners were able to complete our survey in 2012.

After receiving support from NCSBN, we designed a study to repeat the same study in 2018. So we partnered, again, with New York nurse practitioner association, which send a survey link to its membership, and only primary care nurse practitioners were able to access the survey.

Nurse practitioners in both years, both in 2012 and 2018, completed validated measures of work environment, and also, we collected information about nurse practitioner demographics. The most

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 practition 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 practition 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 significantly better in 2018 than in 2012.

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 practition work environment in New York improve.

There was no significant difference in nurse practition-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 improvement for experienced and less experienced NPs. So what are our results telling us? Our results are telling us that nurse practitioner report significantly better work environment in 2018 when we control for individual and organizational characteristics, and positive changes were observed both for experienced and less experienced NPs.

One thing we need to understand that, you know, our study took advantage of this natural experiment that happened in New York State to show how the work environment improved for nurse practitioners. So it creates a discussion about how other states can remove their unnecessary restriction on NPs to really improve NP work environment and allow nurse practitioner to be able to deliver care to their patients.

So our findings really show important insights about a potential impact of the scope of practice laws on the work environment and nurse practitioners. And we know that work environments are important for patient safety, they're important for quality of care, and they're important for patient outcomes. So policymakers in other states should take actions to remove unnecessary restrictions on NPs to improve NP work environment, and we believe that it will also lead to better quality of care and patient outcomes.

This study is one of the first studies to show a direct impact of state-level scope of practice regulations on the organizations employing nurse practitioner. Of course, our study is not free of limitation. The study has several limitation. One is we rely on the self-reported measures from nurse practitioners. So NPs are the ones who are telling us about their work environment.

We are unable to link exact person responses from 2012 to 2018, so we don't know if it's the same NP responding, but it's the same membership list we used. We don't have any control group. We don't know if similar changes have been observed in other states. And also, the study was conducted only in one state, with a limited generalizability.

Despite this, we believe that our study indeed produced robust and interesting findings to inform policy discussions about removing unnecessary scope of practice restrictions on nurse practitioners. I have not done this work by myself.

I have a fantastic team of researchers and collaborators to thank. And I also thank our funder, National Council of State Boards of Nursing. Without their support, this work would have not been possible. Thank you. Thank you, everyone, for participating and for the opportunity to share the findings of our research.

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.

So I think our study is one of the first studies that actually shows that, you know, favorable policy environment may lead to favorable work environment. And we know how critically important favorable work environment is. Research is clear that a good work environment is beneficial both for patient, providers, and overall health care organizations.

And we know that our clinicians are facing challenging work environment, and I think COVID-19 pandemic really made it more visible. So if you have any questions about the study, I'll be more than happy to answer. And, I think, the paper is published in Nursing Outlook. Where it was very recently. So if you want more details, it can be found in the manuscript, in Nursing Outlook.

I see there are no...oh, there's a question. So there is a question that says, "Nice presentation."

Thank you. It says, "What was the percent of your sample in relation to total number of primary care NP in New York? Did you include all population-based NPs, percentage reflected?" This is a very good question. To be honest, I mean, one of the interesting things, it's very difficult to track the actual number of NPs in New York because that information is really not collected.

But, you know, so we only had about 300 nurse practitioners, and I think there are more than 10,000, I believe, nurse practitioners in New York. But the way the data is collected about nurse practition in New York is challenging for me to give you accurate number, but we collected data from all NPs. We asked them...we first selected primary care specialties, family nurse practitioner, adult nurse practitioner, and then PNPs, and then we asked the NPs to self-identify also.

So in addition for us to create, you know, to sample NPs who have a primary care specialty, we also asked NPs to self-identify. So those are the two criterias that we use to narrow our sample. Thank you.

And most of our research is on primary care NPs because we do believe that primary care NPs do play a critical role in helping to meet a demand for health care services and are a key workforce to study and to understand how to effectively utilize these NPs to really meet the demand for care. Well, thank you, everyone, for participating.

I don't see any questions. But if you have any more question, please, feel free to reach out of me via email, and I'll be more than happy to answer. Thank you, everyone.