Past Event: 2022 NCSBN APRN Roundtable- Sexual Abuse: Value of Nurse Practitioner Inpatient Hospital Staffing Video Transcript

Event
2022 NCSBN APRN Roundtable

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I'd like to begin my presentation by thanking NCSBN for gathering us together for this APRN Roundtable. And I would like to thank our nurses globally, who for the past two years have endured the physical and emotional turmoil associated with delivering nursing care during a global pandemic, and especially our nurses in the Ukraine, who have been dealing not only with the ongoing pandemic, but now the trauma associated with war.

The impact of nurse practitioners in acute care and opportunities, ongoing opportunities, for nurse practitioners in acute care. So I'd start with the nurse practitioner workforce at the national level. And some of these data are from 2020, and some a couple of years before that.

But I think we need to revisit the issue and why we have this need for nurse practitioners, and it's the anticipated physician shortfall. And I must mention that these data are pre-COVID. So the numbers will be a bit more exaggerated in the future.

But right now, looking at this, we see that there's roughly a shortage of 45,000 physicians anticipated by 2032. And similar findings when we look at physicians who are specialists, they have a specialty practice. There's a projected shortfall of 10,200 physicians by 2032. At the same time, we have an aging population, with numerous chronic conditions.

And this graph just shows how we're escalating with chronic conditions, such as stroke, heart disease, cardiovascular disease, diabetes, hypertension, arthritis, dyslipidemia, asthma. And they're escalating at a rate higher than the actual population is increasing.

These data, I should mention, and all slides are cited with the provider source below, is from Tim Dall and colleagues that appeared in "Health Affairs," and it just shows us these trends that are quite alarming. But at the same time, we have acute care nurse practitioners, hypertension, heart failure,

respiratory illness, GERD, abdominal pain, arrhythmias, anemia, coronary artery disease and angina, lower respiratory disease, again, hyperlipidemia, diabetes, COPD, and asthma.

So nurse practitioners are well positioned to fill the need of the aging population in this country. These data by David Auerbach and colleagues that appeared in "New England Journal of Medicine Catalyst" just shows the number of full-time equivalent clinicians, physicians, nurse practitioners, physician assistants.

And you can see how the projected growth, and you look at those actual raw numbers and it doesn't look bad until you look at the actual projected growth. And as was indicated in those first couple of slides, the physician workforce is minimal. There's only 1% growth in the physician workforce. Physician assistants are a little bit better, with 4.3% growth, and nurse practitioners at the highest growth at 6.8%.

Now, pre-COVID, probably about three years ago or so, I was with a group of experts here. We had a roundtable discussion of nationwide experts here in Atlanta, and we were talking about the APRN workforce. And there was a concern that we were flooding the market with nurse practitioners, and would there be jobs available for these clinicians when they went out to actually establish practice?

And overwhelmingly, people were concerned about that, but I think given the current climate, and how much healthcare has changed with COVID, and that projected physician shortage, that we're going to find that we need these nurse practitioners.

These maps are from the Bureau of Labor Statistics and the American Association of Nurse Practitioners, and I thought they were kind of interesting. The map on the left shows the employment, the darker green the states, the larger number of nurse practitioners within those states. And they kind of make sense.

They're the largest states, California, Texas, Florida. Those are the three largest states in this country. So we would expect to have more nurse practitioners in those states. But if you look at the map at the right, which is, to me, a bit alarming, is those same states are the states that have restricted practice for nurse practitioners. The states where we have fewer, many of those have full practice or reduced.

But it's the states where we have the largest number of nurse practitioners do we see that we're preventing them to really practice to the extent of their license. When we looked at where acute care nurse practitioners call home or their practice setting, these data from Kleinpell and colleagues, again, from the "Journal of the American Association of Nurse Practitioners" show, and I found this a bit disturbing, that only 28% of acute care NPs are working in hospitals.

Now, acute care, that's our hospital. Hospital care is acute care. So why only 28% of our acute care NPs are actually in hospitals is a bit concerning. And we find that they're in hospital outpatient clinics and in other settings and private practice and such. But I think we're going to have to revisit this. We need to be able to attract them into our acute care hospitals.

When we looked at the nurse practitioner workforce more regionally, and this would be data from four states, California, Florida, New Jersey, and Pennsylvania, this is work that I did with colleagues at the time I was at the University of Florida transitioning here to Emory, but I did this work with colleagues at the University of Pennsylvania.

This was actually a study that was funded by NCSBN and thus appears in the "Journal of Nursing Regulation." And we compared acute care nurse practitioners to primary care nurse practitioners. And this was an extensive survey. We love doing surveys. And these were surveys of just nurse practitioners in these four states.

It was a survey that was distributed by mail. The nurse practitioners had the option to present it in a written format and return it via the mail or do it online. We used the well-validated Dillman method, with multiple surveys, and postcards, and reminders, and telephone calls.

And the survey was extensive. It had numerous measures. The ones presented here are actually demographic and practice characteristics, the Nurse Practitioner Organizational Climate Questionnaire, and nurse practitioner reports, what they're saying about the quality of care in their hospitals. And, of course, we used the typical descriptive and inferential statistics to examine these nurse practitioners by practice site.

We found that we had survey responses from 1,263 acute care nurse practitioners and 2,343 primary care nurse practitioners. We did see a significant difference in age, the acute care nurses had a tendency to be a bit younger, on average, 47.9 years of age, where primary care nurse practitioners were 50 years of age.

There was a little bit more of a gender diversity in acute care, and this was significantly different, where we saw a larger percentage of men as nurse practitioners in acute care at 10.1% compared to 7.9% in primary care. There was a marginally significant difference in race, where we saw a slightly larger percent of non-white nurse practitioners being employed in acute care settings, 17.9%, versus 15.3% in primary care.

And there were no significant differences in ethnicity. Sadly to say that our Hispanic nurses, if they're out there, they're underrepresented in almost every survey that we see, whether they be federal surveys, those, you know, executed through the federal government, or surveys by individual investigators.

So that leads us to believe that we really have to do a better job at attracting Hispanic nurses, not only into traditional RN roles, but into nurse practitioner roles. And we see here that only 7.6% of our advanced practice RNs in acute care are Hispanic, 6.1% in primary care. And there were no significant differences in the years in their position.

They were, on average, seven to seven and a half years in practice. When we looked at their practice characteristics, we found that the acute care NPs were a little bit better educated, where 89% of them had a master's degree compared to 87% in primary care, slightly larger percent had a doctor of nursing practice, acute care 6.5% as opposed to 5.5% in primary care.

We did see some differences in education specialty, and I didn't find this surprising. A larger percent, and it's a significantly larger percent, of nurse practitioners in acute care trained as adult NPs. When we looked at the family NP role, there was a larger percent of family NPs in primary care, 55.2%.

And that is what we would expect to see. Again, in these other specialties, neonatal nurse practitioners, it's not surprising to see a significantly larger percent in acute care hospitals at 7.1% compared to less than 1% in primary care. Pediatric nurse practitioners was quite similar between acute care and primary care at roughly 9.5% across. Mental health NPs, similar percentage in acute care and primary care at roughly 2.5%.

Women's health, now, this is not surprising either that we'd see a larger percentage in primary care, that's 7.3%, as compared to 1.7% in acute care. And then there were other specialties.

When we asked nurse practitioners if they were certified in their specialty, again, this was not a surprising finding, a larger percentage, actually 77.6%, of acute care nurse practitioners reported that they were certified in a specialty as opposed to 68.8% of primary care nurse practitioners. When we looked at additional practice characteristics, and the first here, time constraints to finish care.

And it wasn't significantly different, which is fine, but the large percentage was a bit alarming. So roughly 88% to 89% of nurse practitioners across settings, acute care, primary care, are saying they didn't have time to finish care.

When we asked if they could bill under their own provider number, there were also significant differences. Again, this isn't surprising just based on the way these settings are... the way they allocate the resources, where nurses in primary care, there was a larger percent, 58.6%, who said they were able to bill for their services, as opposed to the 43% reported in acute care.

Again, another...it's not surprising finding significant, but a bit concerning is the small percentage of nurse practitioners that are practicing in rural areas. We see a slightly larger percent at 17.5% in primary care, 12.4% in acute care.

But, again, this is a national trend even though these are data from four states where we see our rural areas are underserved. When we looked at additional employment practice characteristics, we found significant differences, where a larger percentage of acute care nurse practitioners, that would be 86.2%, are employed full-time when compared to 70.6% in primary care.

That's, again, not surprising because most acute care hospitals want their nurse practitioners to be full-time employees. When we looked at...another not significant but concerning factor is, are these nurse practitioners working more than one job?

And roughly 24%, 25% of them across the board are saying, yes, they're working a second job. When we looked at the workload of a nurse practitioner, this is not surprising either, there were significant differences, where nurses in primary care see a larger number of patients per shift or per day, being 15, compared to a nurse practitioner in acute care, which is 10.8.

And even more disturbing, I feel, of all the findings, and this was not statistically significant, but alarming, is the percentage of time that nurse practitioners spend doing work that should be allocated to registered nurses and support staff, where 84% of acute care nurse practitioners, 84% of primary care nurse practitioners are doing the work of other providers or clinicians.

When we asked NPs to report on the quality of care in their practice, or on their units, overwhelmingly, and there were some significant differences, but overwhelmingly, a very large percent of the care was excellent or good.

And though the primary care nurse practitioners rated a little higher at 95.6% compared to 92.4% reported by acute care nurse practitioners, but still, that's an outstanding finding. Another outstanding finding, though not significantly different, was would the nurse practitioner recommend their facility or their practice to family or friends? And, again, you know, slightly over 90% of nurse practitioners, acute care and primary care, would both recommend their facility or practice to family or friends.

When we asked if they were confident that patients could manage their care at home, again, an overwhelmingly large response that was positive, yes, but significantly different. Roughly 95% to 96% of nurse practitioners stated that they felt that their patients could manage their care at home. It's a little bit lower in the acute care nurse practitioner response, but those are sicker patients.

If you're being released from a hospital, as opposed to leaving a clinic visit, you could see where there might be a little bit more concern on a discharge from a hospital, that there might be issues with care. When we gathered reports on nurse practitioner ratings of the organizational climate, we saw that...when we asked them about professional visibility, there were significant differences here, where actually the primary care nurse practitioner thought that they had better visibility, professional visibility, 3.1%, acute care nurses reported lower visibility at 2.9%.

When we asked them about the relationships between nurse practitioners and administration, the acute care nurse practitioners rated this a little lower at 2.7%, primary care rated it higher at 3.0%. Again, a significant difference.

When we asked them about the relationships between nurse practitioners and physicians, there was no difference here. Both of them rated as 3.4%. And when we asked them about independent practice and support, there were significant differences, where these acute care nurse practitioners gave a higher score of 3.6% compared to the 3.4% score reported by primary care nurse practitioners.

Going on further to look at the nurse practitioner workforce in acute care. Again, data from four states, California, Florida, New Jersey, and Pennsylvania, from 2016. Again, survey and data and a publication with colleagues, led by Linda Aiken and her staff, a publication that appears in the journal, "Medical Care."

And this was very similar to the nurse practitioner survey sent out at the same time, but this survey was sent to registered nurses. We also had CMS data from the HCAHPS survey, so that's the Hospital Consumer Assessment of Healthcare Providers and Systems.

We also had the CMS, that's Medicare Spending per Beneficiary reports. And we also had data on hospital characteristics from the American Hospital Association Annual Survey. And, again, we used a variety of descriptive and inferential statistics to compute the findings that are presented. And what we found is we categorized these data by nurse practitioners per 100 beds and whether a hospital had less than 1, 1 to 2.2 NPs, or greater than 3 NPs per 100 beds.

And we found...now, these are nurse reports, these are reports from registered nurses who are working with nurse practitioners. And we had surveys from 22,273 registered nurses. And we found that a registered nurse would rate the hospital highly as the number or percentage of nurse practitioners on their units increased, where we saw only 27% rating the hospital highly if there was less than an NP on their unit.

And that increased to 37.2% if there were 3 or more. When we asked the registered nurse, "Would you definitely recommend your hospital to family or friends?" 38.2% said they would if there was less than or no NPs on their unit, where that almost went to half, where 51.3% reported they would recommend the hospital to family or friends.

When we asked on report of excellent for quality of care, only 33.6% of registered nurses rated the quality of care of excellent until they increased the number of NPs on their unit to 3-plus, where that increased to almost 46%.

When they were asked to grade their hospital as A or B on patient safety, 66.5% of registered nurses thought their hospital deserved that grade. But when you increased the number of nurse practitioners to plus 3, that increased to 47.3%. Similar, when we asked the registered nurse about an A or B grade on the prevention of infections, originally, 68.4% reported that their hospital did well in preventing infections, with a grade of A or B.

But that increased when you added 3 or more nurse practitioners to 75.3%. Similarly, when we asked registered nurses on their confidence that management will resolve patient care problems, 43.2% reported they were confident.

But when you increase the number of NPs to 3-plus, that was almost 50%. When we asked the registered nurse, "Are you confident patients can manage their care after discharge?" 52.2% said yes. Again, when you added 3 or more nurse practitioners to that unit, that increased to roughly for 55%. Burnout, and there's so much talk about burnout these days in the literature.

And these rates were low, these data were pre-COVID. But when we asked nurses, when we assessed burnout using the Maslach Burnout Inventory, if they reported high levels of burnouts, not just burnout, high levels of burnout, 31.3% of nurses reported high levels of burnout. But when we increased the number of nurse practitioners on that unit to 3-plus, that level of burnout dropped to 29.1%.

When we asked them about job satisfaction, roughly 78.7% of registered nurses were satisfied with their job. That increased to 80.4% when you had 3 or more nurse practitioners on the unit. And when it came to intent to stay in their current job, 87% of nurses in 2016 stated that they would stay in their current job.

And when you added 3 or more nurse practitioners to that unit, that increased to 88.1%. When we looked at what the patients had to say, these are patient-reported outcomes, and if they would rate the hospital highly, and 66.4% said they did. But when there were 3 or more nurse practitioners on that unit, that increased to almost 71%.

When patients were asked, would they recommend, definitely recommend, their hospital to family or friends, 67.7% said they would, but when you added 3 or more nurse practitioners, that increased to roughly 73%. When we asked them if nurses always communicated well, 74.5% agreed, yes.

But when you added 3 or more nurse practitioners, that increased to 78.2%. And when we asked patients, "Was help always received as you wanted it?" almost 60% agreed, yes. But when you added 3 or more nurse practitioners to that unit, that increased to 64.1%.

Again, asking patients about the care they received, when they were asked, was their pain always well controlled, 67.9% said yes. When you added 3 or more nurse practitioners to that unit, that increased to almost 70%. Staff always explained medications, 68.8% of patients agreed with that, and increased slightly when there were three or more nurse practitioners to 62.3%.

And when patients were asked if staff provided information on recovery at home, 47.7% of patients agreed with that. That increased to 51.4% if there were 3 or more nurse practitioners on a unit. And

when we looked at hospital efficiency, defined as Medicare spending per patient, we found that Medicare spending on average was 1.019%.

And in this case, you really want it less than 1%. When you go slightly above 1%, you're excessive spending. And we found if you added 3 or more nurse practitioners, that spending went down to 0.993%. So you had efficiency noted in resource spent.

When we looked at our multi-barrier regression model that was adjusted for all patient hospital and nurse characteristics, we found that increasing the nurse practitioners on a unit was associated with a 35% increase in the odds that nurses would highly report their hospitals, that the hospitals were great.

They were doing a good job. Again, when we increased the number of nurse practitioners on the unit, we found that there was a 44% increase in the odds that a nurse would recommend the hospital to family or friends. Similarly, as you increased the number of nurse practitioners, there was a 33% increase in the odds that a registered nurse would report the quality of care as excellent.

Again, and all of these are by increases in the nurse practitioner workforce, was associated with a 20% increase that an RN would give the hospital a grade of A or B, a 23% increase in the likelihood that a nurse would give the hospital a grade of A or B not only on patient safety, but on the prevention of infections.

Additional nurse practitioners added to the unit was associated with a 20% increase in the odds that an RN, a registered nurse, felt confident that patient management would resolve patient care problems, a 17% increase in the odds that patients could manage their care upon discharge, an 8% decrease in the odds of burnout, a 7% increase in the odds of job satisfaction, and a 14% increase in their intent to stay, as in the registered student nurses intend to stay in their unit.

When we looked at the patient outcomes, and again, in fully adjusted models, we found that increasing nurse practitioners on the unit was associated with a 11% decrease in 30-day mortality, and a 1% decrease, these were odds ratio, so a decrease in the odds or the likelihood of mortality or readmission, both of which were statistically significant, and a 4% decrease in length of stay, another finding that was also statistically significant.

So increase in nurse practitioners overall at the end of the day resulted in a sizeable decrease in 30-day mortality, which is an important finding. When we look at nurse practitioners in Georgia, and I have to bring this in because, of course, right now, I'm here in Georgia and recording for Georgia.

The situation here isn't the best that I'd like to report for our nurse workforce. But I think it's important to just show what happens in some local areas in the country. So some of these data are from a report that we had compiled through Emory University, Yin Li is my colleague and others.

And these were some of the findings of what we found here in Georgia. We found, like in other parts of the country, there was a dramatic increase in the number of nurse practitioners. Now, these numbers are smaller and such, so you see...because the sample sizes are so exaggerated and they're kind of small, that you see a little bit of jumping around in the graph, but there's growth.

No matter how you look at it, there was growth in CNRAs, and nurse practitioners, and certified nurse midwives. These are data from the American Community Survey, and these are similar to findings we've

seen nationwide. What we do see, again, from the American Community Survey on our nurse practitioners, this is a weighted sample of 8,049.

And I'll mention a little bit about data later. The actual sample surveyed here in Georgia through the American Community Survey was only 59 nurse practitioners, but based on statistical weighting, the sample was brought up to 8,041. And we found that on average, they were 41 years of age, overwhelmingly female, 92%, very similar to the national average.

We're a little more diverse here in Georgia. The population of nurse practitioners that are white is roughly 67%. The nurse practitioners that report they are black at 28%, and then a lower percentage of Asians and others. Again, Hispanic nurse practitioners are just poorly represented at 2.4%.

When we looked at practice characteristics, we looked at their level of education. Roughly 73% in Georgia prepared at the master's level, 8% at the doctorate. Again, 23% are employed in acute care, roughly that's what we're seeing nationwide.

If you recall, some of the previous slides were saying 25%, 28%. Slightly more than half were in primary care, totally expected because that was the original intention of nurse practitioners, with 56%. And the earnings are quite low, but that's historic here in Georgia.

Also, the medium earnings for a nurse practitioner, almost $98,000 a year. And their commute time is on average 27 minutes. Then we went on to survey nurse practitioners in the state of Georgia in more detail because, to be honest, the state of Georgia has some of the worst workforce data in the nation.

And we felt that we just had...even though our sample was small at 372 nurse practitioners, we just felt the need to hear more of what they had to say. And we found out that, not surprisingly, 75.3% of them were employed full-time. Again, acute care, that's about the average, 27%, 28% of them reported they are employed in acute care, little bit more than half, 51.1%, in primary care, 63% said they had their own panel of patients that they were caring for.

And roughly 74% reported that they were billing under their own provider number. When we looked at the relationships that these Georgia NPs had with their physicians, we found that only 6.2% were practicing independently. That leaves the overwhelming majority, roughly 94%, are either collaborating with a physician or supervised by a physician.

In a state where we can't afford to lose nurses of any type, we found that roughly 30% of nurse practitioners in Georgia were saying that the relationships that they had with other professionals was not cohesive, or only somewhat cohesive in a team effort. And similarly, when we asked about their relationships with administration, 46% of nurse practitioners in Georgia thought the administration was not responsive, administration was not responsive or only somewhat responsive or supportive of nurse practitioners.

We found that roughly 13% of nurse practitioners in the state of Georgia were very dissatisfied or dissatisfied with their jobs, and roughly 8% of nurse practitioners in the state of Georgia intend to leave their job in the next 3 years.

So, in conclusion, there has been substantial growth in the nurse practitioner nurse workforce nationwide. There's no doubt about it. There was a lot of graphical evidence and numbers in this presentation, but they all showed an upward trend. Improvements within organizations is one strategy,

we know this among nurses and advanced practice nurses, is one strategy to recruit and retain nurses and improve the quality of care.

And the important takeaway here is that these organizational strategies cost nothing. They cost nothing. And the same thing at state and organizational regulations, they can be changed at little or no cost. Many hospitalized patients require advanced care.

You saw those comorbid diseases in the previous slide. Their care is complex due to declining health and those multiple comorbid diseases. These are going to be patients, they're sicker, and especially now with COVID, they're sicker, they're going to [inaudible] advanced clinicians and providers 24/7. And nurse practitioners are a valuable resource to acute care physicians, nurses, and patients.

Now, I'd be amiss if I closed without this slide, because this slide in itself is changing the entire landscape of nursing.

COVID-19, or coronavirus, has had an impact on the workforce that we have never seen in this country. And the potential ramifications are frightening. You've probably heard about this. These are some of our challenges, but the term "The Great Resignation" is across the board.

It's across all areas of employment. But recently, I heard it referred to in healthcare as "The Great Awakening." And this demands that we reevaluate acute care nursing. Nurses have left their positions, and many are approaching retirement age. Our hospitals are flooded with nurses from supplemental staffing agencies.

I know it from what's happening here in Georgia. Some hospitals are reporting units with 70% to 100% travel nurses staffing their units. And to be honest, I thought maybe this was geographically novel finding, but it's not. Because I had a conversation with a nurse practitioner from a California hospital the other day, and those of us that are nurses know that California has the best working conditions of any state in the country because they have mandated staffing ratios.

And that nurse practitioner told me that there were so many travel nurses, but in California, they refer to them as registry nurses, that they were outnumbering the full-time employees. So if it's happening in California, the state that always attracted nurses, then this is a huge nationwide problem that needs to be addressed.

How do we address it? With nurse practitioners and bedside nurses through licensure and scope of practice, and data, data. If we don't have the data, we won't know where these nurses are. Nurse practitioners took on an expanded role during COVID, during the pandemic, states let them have more control over practice despite these limitations.

Why can't we retain those expanded roles for nurse practitioners in acute care facilities nationwide? I mean, why can't we...I really look to NCSBN for this. We need help.

We need help with the data. And I can't think of any other organization or agency in this country that is better positioned to help us as a profession to collect data on nurses, registered nurses, nurse practitioners, licensed practical nurses, nursing assistants, because we need to know about all of them now. Emphasis needs to be placed on the economic value of nursing. Nursing has always been considered a cost to the healthcare system.

It's about time we consider it a revenue. We need to value the financial contributions of nursing care. We need to redesign the payment model based on nursing services. This is where I need my economists to be in there and at the table, and say, "How can we redesign this?" Because we're not going to bring these nurses back unless there's a dramatic change.

And we have to redesign the entire acute care model, and we have to do it now. And I know there's talks. I've heard talks in Georgia, where administrators are desperate to find a way to staff hospitals. I think, and this is my opinion, we need to go back to the team-based approach to nursing, bring back some of those licensed practical nurses.

We can train them in a relatively short period of time, but bring in the nurse practitioners. Bring them back to play a leading role at the bedside, where they oversee registered nurses, and licensed practical nurses, and nursing assistants. It's a model that we have to change now.

And bring in technology. Why not use technology to help us forge forward as we try to mend or repair this acute care model? At the end of the day, I think if we bring that nurse practitioner model of care to the bedside in acute care hospitals and try a team approach, it can only result in positive and cost-effective nurse and patient outcomes.

Thank you.