Past Event: 2023 NCSBN Annual Meeting - President's Address Video Transcript

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Event
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Presenter
Jay Douglas, MSM, RN, CSAC, FRE, President, NCSBN Board of Directors; Executive Director, Virginia Board of Nursing

- [Brendan] I know there are a number of new faces, many who are possibly attending annual meeting for the first time. So, my name is Brendan Martin, and I am the director of research here at NCSBN. And I really just want to say it's been a pleasure getting to see so many familiar faces, and honestly, getting the opportunity to meet so many new folks these past couple days.

I really hope you found the same experience. I hope it's been a productive meeting. I hope you have had the opportunity to really network with your peers because even though we are two and a half years out from the onset of the pandemic, I truly do not take these opportunities for granted anymore. We were kind of, you know, left in the cold wastelands of virtual meetings and presentations, and so, I'm just really excited and I'm energized by the opportunity to really get to engage with you in person.

But I am here today to discuss the results of one of our recently completed COVID-19 studies entitled, "Assessing the Impact of the COVID-19 Pandemic on Pre-Licensure Nursing Education." So this was a national study of RN programs around the United States. Before I kick things off though, I would be truly remiss if I did not mention that this is really an excellent example of interdepartmental collaboration, yet again, at NCSBN.

While the research team did put considerable resources and time into this particular study, as we did for the workforce study, we are also deeply indebted to Dr. Nancy Spector, who I know is here somewhere in the wasteland of the dark, and her team in nursing education for their support for what I jokingly refer to as a very long two-and-a-half-year study.

But without further ado, let's just jump right in. So, for today's presentation, I'm really just going to cover a few major points because we do recognize the results for this survey really took on the format of a JNR supplement of over 60-plus pages. So there's a bit of a heavy lift associated with trying to review that amount of material.

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So, I wanted to provide you with some targeted information hoping that by giving you that general overview, it would facilitate further discussion and questions. So, to do that, I'm going to start by providing a bit of background on this study so that you are all very, very clear on why we wanted to pursue this study in the first place, and really, ultimately, what we hoped to achieve when we set out to do this analysis.

I'll then share a brief overview of the study methodology, just making sure that that's working, so that you are clear on how we composed our sample, went about collecting our data, and then, ultimately, how we analyzed our responses before we get into the meat of the presentation, in which I will discuss kind of the broad strokes of the results. And in particular, at the end, I'll try to make clear how they kind of intersect with or align with other evidence on this particular topic.

And then, again, we will open the floor to any questions or comments that you might have, a little bit of extra time. So, again, if you're enthusiastic on this topic as well, we can revisit workforce and we can kind of show how these two studies ultimately do align. So, to provide context for my discussion today, I would, first, like to transport you all back to early 2020, and in particular, the first few weeks of the pandemic.

And so, I think it's official now, Richard, we're the first to really bring COVID up as a topic. So we are the Debbie Downers of this year's annual meeting. But, typically, the research department spearheads about 30 to 40 active research studies. So, that kind of constitutes the core of our research agenda, but it was in early April 2020 that we began to really, truly recognize, right?

We were all, same as I think a lot of people in this room probably think to ourselves, by the time we get to summer, we'll be in the clear. This will be fantastic. After a couple of weeks and a formal shutdown of an entire...the third largest city in the country, we began to recognize the potential for, really, the broad and possibly enduring effects of the pandemic on nursing as a profession.

So what we did in the research department is we really circled the wagons, so to speak. And, in counseling together, we developed what was ultimately a targeted, and yet, we feel expansive research agenda focused exclusively on the results of the pandemic or the effects of the pandemic. This became, in real-time, really our singular priority. But now as we look back retrospectively, I think we're pretty clear-eyed about the fact that this became one of our major investments of time and resources within the department for the past two to three years.

So, as you can see on the slide in front of you, the research agenda included over 10 applied research studies. These ranged in terms of their timeline, their scope, their design, their samples. The reason for that is because the topics broadly ranged as well. So, we were interested in pre-licensure nursing education. We were interested in early career in [inaudible 00:04:52] practice.

We were interested in workforce trends. That interest is very durable. But the biggest takeaway was really that we wanted to...as best as humanly possible, we are only human, we wanted to capture the effects of the pandemic, really, on every single level of nursing. That was our goal. That's what we set out to do.

We are very gratified that this past April, as Richard mentioned, we published the results of the majority, not exactly all but the majority of these studies in a special COVID-19 edition of the "Journal of Nursing Regulation." So Richard made the plug for the 2024 workforce. I will also make the plug for going to

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the "Journal of Nursing Regulation" website, perusing those table of contents for the April edition and the July edition.

And if you see a study that is of interest to you, Elsevier continues to make that free access content for the pandemic-related material. Download that information, really dig into it, and if you have questions after today's event, after you know this meeting closes, please follow up with us. We love that collaboration. So, as Richard mentioned, one of the principle, and therefore, most critical studies really assessing the effects of the pandemic on the workforce was the National Nursing Workforce survey.

So, I don't think we can underscore this enough. Every time we get an opportunity, I like to make this statement. The 2022 National Nursing Workforce Survey represented the largest, the most rigorous, and the most comprehensive assessment of the U.S. nursing workforce in the entire country since the onset of the pandemic in March 2020. But, if you remember, in April 2020, we anticipated that the effects of the pandemic would obviously not be limited to the current workforce.

So, in parallel, what we did is we pursued a longitudinal assessment, or certainly, we at least tried to design one for pre-licensure nursing programs across the United States. The primary objective of that study, so the study that I'm about to walk you through, some of the results for was to assess the impact of the institutional, academic, and demographic characteristics on pre-licensure nursing students, academic, post-graduation, and early career outcomes during the pandemic.

So, I can't get through that without chuckling a little bit just because I think, as you can see, we set the bar exceedingly low for ourselves. We were not trying to achieve too much at all. So, who comprised our sample? That is an excellent question. I think I couldn't have planted a better question in my own presentation for that. This cross-sectional study utilized a four-phased longitudinal design to assess the academic, the standardized outcomes, and the early career outcomes for pre-licensure nursing students entering the core of their nursing curriculum in fall 2020, and with an anticipated graduation in spring 2022.

So when you consider the entire arc of the research, really from July 2020 to December 2022, this was in effect, a two-and-a-half-year-long study of 51 pre-licensure programs, including over 1,100 participants across 27 U.S. states. Because of the scope and the size of the sample for this particular study, this mixed methods study was able to leverage over 4,000 course-based observations supplemented by hundreds of early career observations and the rich personal narratives of over 60 focus group participants.

So, this goes back to Lin's earlier comments regarding the workforce. We did have the qualitative component built into this. For a longitudinal analysis, the one thing I like to do upfront is to give you transparency into when we entered the field, what activities were we engaged in, what were we looking to achieve at those points in time, and whether or not any of those activities were really happening in real-time at the same time, kind of in parallel.

So, from this diagram, you can see really a timeframe for the entire study from start to finish. So, I'll start reading left or right. So, in July 2020, we conducted email-based outreach via Qualtrics to all administrators at pre-licensure RN programs around the country.

In total, we had over 500 program representatives respond to that initial outreach, and they ultimately provided absolutely critical information, not only to inform our study but point in time as to what was going on with our planned instruct...or delivery of educational materials for the fall 2020 term in light of

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the onset of the pandemic. We also used this survey outreach as kind of a springboard and a formal recruitment tool to try to encourage and educate folks to then participate in our longitudinal analysis, which launched later in the fall.

The period of within-program data collection, you can see kicked off formally in August 2020, and then that ran all the way through the end of May 2022. So, that constituted our within-program data collection period. In June 2022, that was a major inflection point in our data collection process for this particular study because we pivoted away from within-data program collection for students and faculty-reported outcomes to that early career tracking phase of the study.

There were two intervals that we were primarily interested in for that phase. One at three months following graduation, and then again at six months following graduation. So, that carried forward all the way to November 2022. In parallel, you can see that's when we also conducted in kind of that early career data tracking phase, our focus group participant data.

So, that was from June 2022 to August 2022. A lot of 2022s here. And then, data collection formally closed at the beginning of December. Regarding the methodology, the study utilized a combination of student and faculty self-report data in real-time via email-based surveys using Qualtrics. We used a combination of in-house and externally validated instruments.

For those of you who may not be familiar, in-house is just kind of short form for these were custom survey instruments that we developed internal to the research department at NCSBN. We use these in a very limited fashion. We really just wanted to use those instruments to collect baseline demographic and practice or professional information, as well as general descriptors of the courses in which students were enrolled, and ultimately, the faculty would be teaching.

We then limited our collection on student outcomes associated with learning, engagement, clinical preparedness, practice proficiency, etc., to the externally validated instruments. As some of you know in this room, collection within an end-of-program standardized test scores was then facilitated through direct coordination with individual research site coordinators. So, these folks were often the faculty or the administrators who volunteered, think about that, volunteered in fall 2020 to serve as their primary point of contact for their program throughout the duration of their participation in this study.

All quantitative survey findings were then supplemented with qualitative focus group findings. The focus groups were generated based on a purposeful sample of the students, faculty, and administrators who had participated or consented to participate in earlier stages of the research. In particular, that longitudinal data kickoff in August 2020. Participants were placed into three distinct groups based on their primary responsibilities, so faculty, students, and administrators.

One of the questions that might occur to you immediately, "What happens if somebody wore two hats?" That did come up in our recruitment for the focus groups. Oftentimes, it was an individual faculty member who also had administrative responsibilities. In that particular instance, we asked them to reflect on where the majority of their time and responsibilities really lied, and then, we asked them to self-select based on that information. I'm not going to get into the weeds on this last one.

We employed various statistical measures for this particular analysis. So, our unit of measurement transitioned from one stage of the study to another. So, in some instances, our unit of measurement was the institution, in which case, obviously, we only had 51. In other instances, it was the observations, in which case, we had thousands and thousands and thousands.

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In some cases, it was the students. We had a little over 700. So, for that reason, we employed a range of statistical techniques from simpler descriptive and non-parametric methods, all the way up to generalized estimating equation models, which allowed us to really capture the repeated measures design, and then, detailed textual analysis. This really allowed us to sufficiently approach and kind of dig our teeth into the student, the faculty, and the institution-level data.

So, like the workforce survey, we would argue, this study certainly represents one of the most comprehensive and rigorous assessments of pre-licensure nursing education in the United States since the onset of the pandemic. If you have not had the opportunity, I would highly encourage you to download a copy of this from the JNR website.

It is free, and the information is provided in front of you, and this whole presentation will be provided to you following the conclusion of this meeting as kind of a living, breathing resource. Finally, the findings. So, the results of our work ultimately confirmed. Obviously, the impact of the pandemic was not limited to the current U.S. nursing workforce.

During our July 2020 outreach, over 80% of pre-licensure RN programs indicated that they were going to incorporate some level of virtual simulation for the fall 2020 term. And while that sounds like a lot, and I think that is a lot, the magnitude of this shift, I think, is perhaps most underscored by the number of raw programs that indicated that they incorporated no virtual simulation pre and post-COVID-19 onset.

That number fell from 130 in fall 2019 to just 11 in our survey in fall 2020. On the slide in front of you, you can see the mean usage of face-to-face high-fidelity simulation and virtual simulation and how that changed term over term over the two-year study period.

There's two things to notice about this particular graph. The first is that those proportions in any given term, stack or additive. And so that's how we add up to the higher kind of summary academic year figure that corresponds to that vertical dotted line. The other thing that I would just draw your attention to because I think it kind of aligns with our own personal and professional experience in particular of kind of that initial heightened period of the pandemic. In that, you can see there was an initial spike in the employment of simulation, and then, that waned a bit even into the only the second academic year of the study.

A consistent trend that emerged from our results were the superior outcomes documented by both students and faculty alike. It was very uniform for in-person clinicals and that face-to-face high-fidelity simulation vis-a-vis virtually simulated environments.

These results manifested time and time again across an array of the factors that we were tracking. So, program setting, program type, student SES, the timing of students' clinical rotations, etc., etc. So one of the things that struck us with these results, it's kind of twofold as it relates to clinical simulation.

One is this study effectively constituted an incredibly large geographically, racially, and ethnically diverse natural experiment that effectively, really in a one-to-one fashion replicated the results of our national simulation study from 2014. So what we saw was when there was good adherence to rigorous evidence-based guidelines regarding high-fidelity face-to-face simulation, the student outcomes were just as strong, they were just as consistent, and they were just as replicable as their peers in in-person clinicals.

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The same cannot be said of virtual simulated environments, even in as large of a sample as we were able to capture. And again, this is credit to these pre-licensure RN programs all around the country, really volunteering of their time. What extra time did any of us have in fall 2020? But because of their contributions to this study, we were able to recognize that it wasn't necessarily even just the application of virtual simulation, but it was the range and the definition of what constituted virtual simulation that ultimately resulted in poorer student outcomes time and time again.

So, what I'm about to do, I feel a little bit like Oprah, right? So, we're in Chicago. So, what I'm going to do in these next few slides is you get a table and you get a table and you get a table. But I think you can take my word for it. I hope you take my word for it.

You can certainly download the report, you can peruse it at your own leisure. But what I wanted to do is to kind of give you just a visual reference for how consistent these results are, right? You don't even need to take my word for it. I'll show you some pictures. So, what I've done is I've just kind of taken screenshots of the tables from the resulting publication for this study, and what I've highlighted for you on these slides singularly are course modality.

So, the delivery format for the instructional material. So, these results that you see in front of you are relate to the CLECS 2.0. So, these are students self-rating of their clinical experiences. For those familiar with the CLECS, the 2.0 part of this is because it captures all three modalities. So, the CLECS originally only kind of captured that face-to-face simulation and the in-person clinical, the 2.0 part allowed us to capture also the virtual simulation.

Here, again, you see the faculty CCEI results. And again, if you're thinking to yourself, "Why is he going through these so quickly?" It's because you can download it. Standardized examination results, and then the NCLEX results. So again, across all of our measures, and, you know, you might be thinking to yourself, "Where's the early career stuff?"

We're coming to that? So, shifts to online. So, kind of to date I focused on...or up to this point, I focused on clinical simulation. Shifts to online delivery of lecture content were even more pronounced. And I have to say, this caught me a little off guard, and I think in retrospect, it shouldn't, right? Because these kind of represented some of the lower-hanging fruit opportunities to transfer what you did in a classroom online.

But what we saw was a 60% increase in the plan use of online lecture delivery from fall 2019 to fall 2020. So what does that mean? Again, in hard numbers, right? One hundred sixty-seven programs who responded to our baseline survey in the summer of 2020 indicated that they offered no online lecture content in fall 2019.

That number fell to 21 in fall 2020. So, I don't think it's an overstatement to say this near wholesale shift to online delivery of lecture content inevitably impacted students' learning and engagement outcomes as well. What we saw time and time again is that in-person and hybrid learning consistently surpassed those instances where those folks were in online-only environments.

Similarly, students who enrolled in in-person and hybrid courses also reported significantly and consistently higher levels of engagement, vis-a-vis their peers who are in online-only environments. And, interestingly, this is one of the things that I don't want to overstate too much because our program set was very strong in terms of their performance on standardized examination scores.

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But it was really this transition from the classroom to an online space for lecture content, so the didactic content where we really did see some of the slippage in the standardized test outcomes. So, students who were enrolled specifically in kind of online lecture-content-only programs, so programs that had shifted a larger proportion of their content online also experienced greater decreases in their NCLEX RN results, vis-a-vis those who would rely more on either hybrid or in-person delivery.

So, again, a few tables. So, this is the cap perceived learning scale. So, this is specific to kind of that lecture setting. These are the second results. So, whenever we kind of talk about student engagement, this instrument, again, an externally validated instrument was really narrowed in on that particular topic. Some standardized examination results, and then a few more standardized examination results.

But our research in this area, and I think that this is where we start to see some real intersection with the workforce work also documented significant declines in the clinical preparedness of new nurse graduates and drop-offs in the clinical proficiency and diagnostic proficiency of early career nurses.

And this was largely driven, once again, by shifts to more remote and virtually simulated educational models required by the pandemic. So, this isn't casting aspersions, right? We did the best that we could in the time that we were allotted. But what this tells us is that kind of rapid transition not only had initial deleterious effects for the pre-licensure students in their program, but that kind of carried forward to their early career experience.

And when we're able to highlight, for instance, the delivery format or the delivery method, that is because with this large of a sample, these many observations, we were able to take all those possible confounders, maybe not the unobserved ones, but the ones that we were certainly tracking anytime in which we saw an independent association with another characteristic. We were able to look simultaneously at, well, let's say we control for student SES, let's say we control for institution type, let's say we control for institutional setting.

In those more rigorous, kind of multi-variable settings, those other possible predictors of these outcomes ultimately fell away. And what we were left with was a very durable, a very consistent, and a very strong relationship with delivery format, specifically, and an array of outcomes. So, this table before you presents the early career outcomes, assessing clinical preparedness, and practice efficiency associated with clinical characteristics, and then again, with some of the didactic or lecture characteristics.

So, with these last few slides, one of the things that I like to do with these opportunities because I feel like this is the point of counseling together, this is the point of networking nationally, is to give you a sense also of where our results kind of fall within the existing body of evidence, right? There's a conversation that is going on exterior to all walls, and we want to understand how do the results that we're contributing, you know, either resonate with or potentially contrast with some of the data that is out there.

What we found is with our partners with AACN, is that they have reported during this particular point in time and fairly disconcertingly, drop-offs in both enrollment to baccalaureate programs, as well as prospective student interests in these programs, represented in terms of applications. And so, while outside the scope of our research agenda, one of the reasons why I want to draw your attention to this particular finding is because I think it underscores how wide-ranging the impact that the pandemic has been.

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And I think it also highlights how durable some of these effects are going to be as we kind of project forward a little bit. I know that that's a big part of the conversation with the workforce, also with this study. You know, when we look towards the horizon a little bit, this represents really the Vanguard, prospective student interest in nursing program. And that ultimately has an effect on the overall workforce eventually. And then, similarly, a recent AACN publication really attesting to the faculty burnout and the fact that exhaustion and stress are not limited to the frontline healthcare workforce.

So, again, really, a constellation of rigorous studies showing evidence of a kind of an industry effectively battered from all sides over the past two to three years. So, what are the key takeaways for this study? The effects of the pandemic on pre-licensure nursing education are clear.

They're widespread, they're multiple. I do think that this falls squarely into the category of duh. If you've been tracking even popular media, we recognize that the pandemic had a significant effect on education, not just nursing. So, perhaps more informative are the findings related to programs' significant reliance on virtual simulation and online lecture delivery and the deleterious effects on student outcomes long-term, durable, in multiple settings.

By contrast, I will revisit the fact that our study effectively functioned as a natural experiment that showed and confirmed that good adherence to that face-to-face, high-fidelity simulation did produce consistently strong and replicable student outcomes. But most importantly, we feel our study underscores that today's new nurses likely feel as though they are in a more precarious position than, potentially, they ever have.

So, we would argue that an urgent demand exists for practice partners to respond to the needs of these new nurse graduates to facilitate transitions to practice that really develop a sense of salience in this arguably transformed healthcare landscape. Furthermore, there really need to be efforts to address gaps that were revealed as a result of the pandemic in kind of the educational curricula.

So, for instance, particularly as it relates to disaster and public health emergency education and training. And then, finally, I don't think that this will come as any surprise. The use of educational technology to facilitate students' experiential learning really needs to be revisited. So, with that virtual clinical simulation space, there needs to be more research on this topic. There needs to be rigorous evidence-based guidelines for when to use it, what constitutes virtual simulation, and what produces consistently strong and replicable student outcomes.

So, I could go on and on about this, but obviously, we do have very important news here coming shortly. So, I am going to stop here. I'm going to open the floor to any questions that you might have. One of the things that I will hasten to mention is that you might come up with questions on your flight home, on your drive home.

You might come up with questions within 10 minutes of this session ending. We are always happy to collaborate. We want to coordinate with you. We think that there's real power in doing this all together, not just as, like, a nursing community, but also an inter-professional community. So, should you have questions following this session, it just doesn't occur to you right now, please, feel free to follow up with us. I have to say, it used to be that my door is always open. Now, I also say, "My virtual door is always open."

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But we love that collaboration. It energizes us. So please do not hesitate. But with that, I will say thank you for your time, and I will open the floor to any questions that you might have. I see podium number four.

- [Medi] Hi, Brendan. Good morning.

- Hey, good morning, - Medi Barnelli [SP] from Washington, DC aka, the District. I'm excited to hear your information this morning, and I have a question, with all the information you shared regarding these new nurses and the barriers that they've had to overcome, as well as the educators, two thoughts come to mind. One, what are your thoughts as it relates to how acute care individuals, educators can help to facilitate that gap that has been experienced from the academic setting now they're into the clinical practice area?

Two, there's a lot of conversations about, in many organizations specifically, mine as well. We're looking at care delivery models and how these new nurses are going to be able to easily adapt to different care models. For example, one nurse, and not speaking specifically of ratios. I know that's a whole another topic and a whole another animal, but a conversation as it relates to team nursing, conversations regarding if you have lead technicians and the individuals these new nurses that don't quite understand or comprehend what these new care delivery models are.

I know that's kind of a loaded question.

- Well, you took the words out of my mouth. So, I think one of the things that we are careful to do, I am trained as a statistician, right? So, I have a lane. We try to do a good job of documenting, what are the realities, right? And then, we leave it to, you know, the subject matter experts, the stakeholders, right? To really try to address what are the realities and kind of come up with those policy solutions.

But I think what you're getting at there, and we would absolutely state this publicly, is that this is really an all-ideas-to-the-table, all-hands-on-deck approach. That's how this has to be because as Richard attested to, we're dealing with a plethora of issues within the current workforce. Now, we're getting into, essentially, the pipeline for the workforce.

And then when you look at the AACN data, we're also talking about prospective student interest in the profession at all, right? And so, this is going to require everybody coming together and to thinking of comprehensive solutions. It's not silos, right? Everybody has to understand that maybe there are gaps in how we're educating students, but there's also gaps in how we're onboarding new nurse graduates.

And then, there's gaps in terms of, potentially, you know, some of the mental healthcare for current practitioners. There's also gaps in the retention policies. There's potentially gaps in trying to bring those folks back off of the sidelines. And so, I think it is not only a nursing phenomena, as Hank talked about. It's a kind of an inter-professional healthcare phenomena, but as it relates specifically to nursing. I think it's an all-hands-on-deck.

I hope that's not a frustrating answer. It's a loaded question with a frustrating answer. How about that?

- Thank you so much.

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- But, you know, I think it is one of those things where if this was simple, right, and if it was straightforward, we wouldn't be here trying to talk about it. And I think you're spot on in your assessment that this is really going to take everybody working together in concert.

- Thank you.

- Yeah. I see number three.

- [Jessica] Good morning. Jessica Lannan, Michigan. First of all, thank you for all of the hard work you've put into this. We've been able to find the studies online, but wondering if it would be possible for us to get an electronic copy of your PowerPoints to take back to our stakeholders for both presentations.

- Yeah, absolutely. Not a problem. Either this will be made available, as I mentioned, as a resource following the close of this meeting. If not, if it's difficult to find, again, feel free to reach out to me. I have no hesitation saying this. My email is bmartin@ncsbn.org. Please reach out to me directly.

If you cannot find it, I will make sure that you get copies of both reports. But I will hasten to mention, they are free for download on the website. Oh, and the presentation.

- So, the PowerPoints.

- Yes. The presentations, yes.

- PowerPoints, not the reports. Okay.

- There you go.

- Thank you very much.

- Yes, you're welcome. Number six.

- [Gerianne] Gerianne Babbo, Washington State Board of Nursing. First of all, thank you so much for this work that you did and that your team has done. My question is, when you looked at the high-quality, high-fidelity simulation, did you look at ratios? Was it done at one-to-one or one-to-two? And then, my second question is, did you look at the percentage of simulation? Was it...

- Yes.

- ...40, 50, 60? And did that make any difference? Thank you so much.

- Yes. So, yes, no, thank you for those good questions. So, in the first regard, we did not look at the ratios specifically. Because one of the things that we were cognizant of upfront is trying to do this type of a study, in particular, when everything was so new, everything was so scary at the onset of the pandemic, we basically just asked programs to do what they were doing. This was, in its core form, a natural experiment.

And so, I know that there are thoughts as to, like, the appropriate ratio and whatnot. We did not look at that specifically. But what we did look at is we did look at the proportion of utilization, both point in time, and then at the kind of the start of every single term. What we did is we asked participating faculty to, once again, tell us what are the proportion that you plan to use of high fidelity face-to-face virtual simulation, in-person clinical instruction.

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Also, for the lecture content. And the explicit reason for that was because we anticipated upfront, obviously, that this wasn't a static thing. We couldn't track it in July 2020, and then carry it forward and anticipate that we were still going to remain accurate. So, we have both point-in-time understandings, which was one of those graphs. But we also have a sense of how that kind of trended over time in terms of the proportional usage.

And that's one of the reasons why we can confidently state that these results really replicated the national simulation study, because we knew were you employing it more than the recommended 50% high fidelity. And in many of these instances, almost in all of these instances, programs were not. And for that reason, the high fidelity face-to-face, those strong and consistent student outcomes really were borne out in the data.

There were almost no significant differences between face-to-face, high-fidelity simulation and in-person clinicals. Where we did see the differences was with the virtual, given the lack of evidence-based criteria. And then, I see eight, I believe.

- [Jose] Hi, again. Jose from Florida. I truly am very impressed with the extent and scope of the study that you all did, and I'm glad that it's published already. And we are all in support as we are part of the education committee also for the Board of Nursing in Florida. But my comment is on the gap that you highlighted just now with the first speaker.

I do think that there's a lot of qualitative power skills component as what our NASA speaker from last year implicated. They're not soft skills, but power skills on how the program utilizes their staff in establishing those relationships with their students ensuring their success in the program.

And I do think that that qualitative piece truly makes a difference. We have started with the Florida Board of Nursing, and I'm going to address this also with the president's meeting this afternoon. Put it in the agenda, is that we have started the success stories.

We have invited program directors who are consistently successful having successful pass rates as the first metric with NCLEX-RN or NCLEX-PN. And they are presenting that to the board and to the public as we are giving them the opportunity to give that.

Also, we ask them to give... Another metric is their evidence-based component so that they can give us, like, what guides you in this qualitative piece so that it can support you with the success of your program. Truly commendable with your study. Thank you.

- Thank you for those comments. Three, I think.

- [Suzanne] Hello, Suzanne from New York. Thank you very much for this very helpful study. My question relates to population groups because In New York, there are particular challenges with offering in-person patient care experiences for pediatric populations. Did your study kind of investigate the impact or the effectiveness of simulation on preparation for practice for these particular population groups?

Thank you.

- So , if I misinterpret the question, reel me back in, but you are touching on something. So, as I alluded to earlier, this is a 60-plus page supplement.

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- Yes.

- So, had to distill it into 20 minutes effectively. We looked at an array of issues, I think, related to your questions. So, one of the things that we looked at and we asked about specifically was the effect of the difficulty of finding in-person clinical placements.We also asked about the certification and training of faculty, whether there were any upfront resources that the program was able to put forward to try to train folks for some of these transitions.

And what we found time and time again, I don't think that this is going to surprise you, is that the programs that experienced the greatest difficulty of finding in-person clinicals and then kind of the intersection with the ones who weren't able to offer those resources, who didn't necessarily have the faculty trained to maybe allow for some of these, you know, extended modalities, etc. Those were where we did see some of the most consistent drop offs in student scoring.

- Okay. And so, are there any studies underway to kind of analyze how effective this type of education like face-to-face simulation is for these particular populations?

- Well, and this is where I will make a plug for my colleague, Dr. Nancy Spector. So, this is another booth, there's multiple booths. So, for the annual report data, we are absolutely trying to encourage jurisdictions to sign onto the annual report project. And the idea is there, we have a standardized instrument in which we collect this information time and time again with enough frequency that we can start to get at some of those criteria that you're thinking about on a more consistent basis.

So, within research, this was a core focus of ours, but we don't necessarily spearhead education-specific studies often. Nancy's group does look at that topic very specifically and very durably. And so, I would encourage those jurisdictions who are not yet participating to stop by the booth and to kind of get some of that educational material and see about, really, the power that would be derived from that.

And so, I think that that's kind of the answer to your question in a way. We, as NCSBN, continue to focus on this issue and will continue to focus on this issue.

- Thank you very much.

- You're welcome. Seven, looks like.

- [Charity] Hi, my name is Charity Cooper from Illinois. We have struggled in our state with some programs, and our excellent education committee has looked at them and they have had consistently low pass rates. And during the pandemic, this worsened as well.

I'm wondering if you looked at any things that we might do to help encourage those programs to better perform. And if you noticed any...if you had in your study any proprietorial programs, for-profit programs, and if you teased out any differences in those programs.

- So, I can answer two questions. One, I feel like I should hand the baton to Nancy here. So, that is specifically the purpose and the goal of the annual report data. So, we aren't able to necessarily dig into that first component. But that is absolutely the point of the annual report database, to look at those indicators that can help you be proactive in your outreach to these programs to get them back on track.

Because, ultimately, we view the NCLEX as kind of a lagging indicator. This goes back to our 2020 presentation. You know, there are other criteria and characteristics associated with the program that

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would maybe be more early indicators that you could get ahead of this and maybe start to collaborate with the program representatives to get them back in good shape before you start to feed things like a drop off in the NCLEX. So, again, I would make a plug for the annual report data.

The second piece of your question, the answer is yes, and then no. So, a very, very small proportion of the programs who opted to participate. So, this was a voluntary opt-in survey. We wanted this to be as large as humanly possible, but just given the circumstances on the ground, you know, it narrowed pretty quickly. So, we did have some proprietary institutions in our sample, but they constituted such a small proportion of the programs.

And then, I would layer on top of that, such a small proportion of the enrolled students in the study. I think it's actually less than 20 in the study of over 700 students, right? That their effect and their pull on the data was very, very minimal, if any. And then on top of that, the ability for us to then isolate them is very limited. But we did have some.

Yes. Two, please. Loretta.

- [Loretta] Thank you. So, this has, like, sparked, like, fireworks going off in my brain with all of this going on. So, a couple years ago, we started to focus in California on growing our education student base. We have about 30,000 nursing students enrolled at any point within California. And in our role at the Board of Registered Nursing in California, we actually approve every single enrollment change for every single school.

And so, two years ago, during the pandemic, we noticed that we were low, and so we increased enrollments by schools coming forward a thousand students, and then, the next year, another thousand students. What we saw with these studies coming out, and some of the comments have been echoed here where they're like, "This is frightening. We have this huge shortage. What are we going to do?"

Is we saw a huge spike in increase in new RN programs and growing current RN programs, and there's a lot of money behind it. And so, we then had 11 enrollment request in the first 2 months of this year equaling almost about a thousand new students, which is what we had the last two years.

And that happened just at the one board meeting, and we do about four or five board meetings a year. So, our board actually was, like, "We have to stop. We have to stop and take a look at this. How is this impacting the schools that are already approved? What's happening with their growth? How is it affecting the community? How is it affecting the nurses at the hospital?" And a big thing that struck home with me yesterday is when the presentation from the World Health Organization, the gentleman said, the gender role where you have the healthcare as being primarily female.

Well, what we're seeing in California is the spike in for-profit colleges and universities. And we have a very large university there that has over 3,000 students enrolled annually, which is about 10,000 students at any given time just in their program alone. And that's means when we have 30,000 students at any time in our state, they're a third of our RNs.

And that means a third of our RNs are coming out having to pay $150,000 back on student tuition. And so, to me, if we're looking at gender inequality, you're also looking at that debt that is being handed over unequitable as well.

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And so, how do you manage the, oh, no, we all need to come back together and collaborate on this to fix this workforce issue with what are we going to do? What are the unintended consequences of that when we have rapid growth in our programs? We have people that are stepping up to help out. They're putting the boots on the ground, they're getting faculty, and they're getting clinical placements.

They're putting people through because they're worried about this pipeline. But that pipeline can actually be negatively affecting a lot because you look at basic economy, they can't get into our public institutions. They're not growing the same way that our private institutions are. And the private institutions truly believe that they're serving because there's no openings in the public institutions because the private institutions are kind of outgrowing everybody else.

- So, I don't know if this needs to be the last question. I know we're running up against time, but one of the things that I think you're touching upon is why this is such a multifaceted problem.

- Mm-hmm.

- And there is no simple low-lying solution to this. So, just growing enrollment for the sake of growing enrollment and trying to get in to expand our numbers at the front end of the funnel, kind of in a vacuum, like absent any consideration of the quality of that instruction, the debt burden, etc., what we're kind of doing in that process, I think, is misguided, obviously.

I think that this needs to be an enrollment issue, which also has a, simultaneously, faculty issue, right? But there also need to be sufficient clinical spaces, there need to be sufficient clinical preceptors, right? There needs to be a mentally healthy workforce to onboard and mentor these new graduates. I think it is so multifaceted that to your very, very point, there is as there always are, right? There's leverage in some of these times of crisis for bad actors, and just because a program can facilitate growing enrollment doesn't necessarily mean that growing enrollment translates to policy solutions for a workforce that potentially has a dire projection, right?

So, I think you're spot on. I think it does kind of come back though to the fact that everybody need this in concert, and I know the policy team is here somewhere. The policy team has talked in a number of jurisdictions about legislators singularly focused on growing enrollments, kind of absent any consideration of appropriate faculty or clinical training, right.

That is not the solution. Nobody thinks that that is the solution outside of that kind of realm. And so, I think one of the things that you're speaking to yet again as others have spoken to is the fact that this really requires everybody working together. None of these things are silos, none of the possible policy solutions or long-term educational solutions are easy or low-hanging fruit. And so, that's a good point.

- We actually had in our Sunset Builders last year, where our board was pretty much handicapped. They wrote into law saying exactly what we can look at. Do they have resources? Can they support it? And they specifically forbid our board to look at workforce and any other issues unless we wrote into regulations.

And it's been a huge push in California to remove the board for approving these programs and having any say in enrollments and leave it up to accreditation and not leave it up to our board. And so, that has been huge handicapped that we've had to deal with this year, that we haven't had to deal with in the past.

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And it came from specific legislation and brought in by lobbyist coming in and saying, "Oh, the board is bad. This is bad. We have to do this." And so, I think it also goes back to what can we do from a regulatory standpoint to counter that and how do we go off of evidence versus, well, the need is here and they have the resources. So, let's just kind of put them all through.

- Well, you'll find an ally in us for evidenced-based policy. So, I do think I'm getting the hook. There is one other individual at podium six, I will follow up with you. How about that? Directly, I'll come right back.Thank you so much.

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