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2018 NCSBN Scientific Symposium - Education: An Update to the NCSBN Simulation Study: A Review of Simulation in Nursing Education Video Transcript

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Event

2018 NCSBN Scientific Symposium

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Presenter

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- [Maryann] All right, well, good afternoon, everyone. It's the last session of the day so I will be quick and brief. And hopefully, stimulate a little conversation. First of all, I would like to acknowledge Richard Smiley who was really the brains of this project.

It actually began in 2010 when Jennifer Hayden was working at NCSBN, and before we kicked off the National Simulation Study, suggested, "Let's do a survey of all the prelicensure programs across the country and see where they are with simulation."

And we had those data, it was published. It's one of the most frequently read publications in the Journal of Nursing Regulation. So, here we are at eight years later, and we decided to repeat the results whilst in 2017. Seven years later, we decided to repeat the result of the questionnaire, the survey to see where we are now, what has changed, and has the simulation study and the subsequent guidelines had any impact on what's going on in nursing programs across the country.

So, I'm going to just briefly give you a background, a little more background, talk to you about our cohort study that was connected as part of this, I'll tell you about the survey responses, our results, and then the conclusion. So, in 2010, a survey was sent out to all prelicensure nursing programs to discuss the prevalence and practice of simulation, and findings from those studies were not only published as an independent study but they were also used to design the National Simulation Study.

And then, in 2017, like I mentioned, we did a follow-up study which replicated the methodology of the 2010 survey but we updated the questionnaire to include questions about the impact of the simulation study and guidelines. So, the purpose of this was to describe the current state and use of simulation in prelicensure programs, and this time, one of the differences in this survey was we included LPNs.

LPN programs were not included in the original study. I'm going to be presenting you nominal data on frequencies just to compare the 2010 with the 2017 findings and describe any changes, and then finally, determine the use and impact of the simulation study and guidelines. In terms of methodology, a survey via mail was sent to all prelicensure programs.

It was the same survey as in 2010 with added questions. This time, as in the past, as in 2010, there were multiple mailings. There were two mailings in addition to a reminder postcard. The survey responses, we received, in 2010, a little over 1,000 usable surveys for a response rate of 62.2%.

In 2017, we received 902 usable surveys but for a response rate of 28%. So you could see how the response rates have been going down even though it was the same group that we were sending these to, same method used, a different response rate.

Surveys were mailed in 2017 out to both RN and LPN programs. And then, I'm going to tell you about the cohort study that we did. So, in order to be sure that we didn't have a difference in outcomes from 2010 to 2017 because different schools answered, we did a cohort study, and that were we looked at the same schools that answered the survey in 2010 and in 2017, and they were considered a cohort and a study was done just looking at their results and comparing their results to the overall sample.

The idea was to be sure there wasn't a difference, and there was no difference in any of the results between the cohort and the overall large sample group. So the 2017, this is a bit of the results from the types of programs.

As you could see, the Associate Degree programs were the largest number to answer in both time periods. So the blue are the 2010 results and the greenish color were the 2017. And as you could see, there was a decrease at all four of those RN programs with Associate Baccalaureate still being the highest responses.

And then, a pretty good response from the LPN program about 40%. There was a slight increase in the proportion of responses from community colleges and technical schools. There was also a slight increase in the proportion of responses from programs in rural areas.

This is a little bit different from some of the other studies that we have done where we usually see the biggest number that comes from urban areas. So, that was a different finding for the 2017 survey.

The median number of clinical hours... So we asked the question, "What is the total number of clinical hours your school requires?" and these are clock hours and it was defined as hours that the student has to spend in an actual patient experience dealing with patients.

And so, we asked them just overall what's the total number of clinical hours that your school requires, and as you can see, there was a decrease in clinical hours across the board from 2010 to 2017. The median number of clinical hours decreased by 40 to 50 hours for all prelicensure Masters degree programs.

So, this and in and of itself tells a little bit of a story about the requirements of nurse prelicensure nursing programs since 2010. And that was the same as we found in the cohort study. I'm not going to

go through the cohort results because they were pretty much equivalent to the large sample, but here you could see, it's just an example about how the results mimic one another.

So, from 2010 to 2017, the use of high fidelity simulation has increased across all courses. And so, you could see, there was a significant increase...and when I say significant, it's not statistically significant.

We didn't look at that but you could just see from the increase from the blue to the green bars that Med/Surg, Advanced Med/Surg, Obstetrics, and Pediatrics...and I believe Obstetrics and Pediatrics had the largest increases. We know that that is being the trend going forward.

In fact, a lot of states are even allowing a higher percentage than 50% to be used in those courses. This is an overview for the LPN courses using high fidelity simulation. And what you would see if we overlay these results with the RN results is they're very comparable.

The RN programs are using a pretty much a very equivalent amount of simulation in these courses. The one course they are using more than the RN programs are in the Health Assessment and Foundations courses. Simulation labs are being used slightly less often to practice routine assessments, but more often to practice rare patient scenarios, and this is pretty much no surprise but you could see a little bit of a decrease as I just mentioned from practicing procedures and routine assessments to really focusing on rare scenarios that the student may not actually experience in the clinical setting.

So, one of the questions we asked was their opinion about the amount of simulation that's being used in their nursing program. They had three choices, they can select on these answer: more simulation should be used, the right amount of simulation should be used, or less simulation should be used.

And as you can see, the change here has been from schools believing that they needed to use more simulation to with being the right amount of simulation being used. Programs are reporting fewer barriers to using simulation. So, the thing that is probably the most significant in terms of barriers in faculty is faculty training.

We still know that faculty need to take specialized courses in order to be a facilitator of simulation and be able to run the simulation. And schools are still saying that's the number one reason for their being...as a barrier to simulation. And then, being able to actually have staff to facilitate and run the actual simulation experiences.

The bottom line here is more of those programs and education workshops are needed for faculty in running a simulation. Same exact results for LPN programs. Simulation hours are increasingly being substituted for clinical hours, so I think it was pretty...

When faculty are saying, "Gee, you know, our school is using the right amount of simulation and as you could see, they're increasing their amounts," so faculty seemed overall pretty happy with the fact that they're being able to substitute simulation for clinical hours. The big difference here, we went from, in 2010, simulation being used as a supplement to clinical hours to in 2017, simulation being substituted for clinical hours.

The increase in substitution for clinical hours is occurring across all courses. So, as you could see here, the green is rising above the 2010 level in all the courses across the board. So, the question was asked, what is the maximum percent of hours your program would substitute if allowed, and this answer was very interesting, 50%.

Everyone stopped at that 50% cutoff, and that was the median number. About half of all faculty receive formal training in aspects of simulation so we asked if you've been formally received formal training in running the scenarios and programming the mannequins and in conducting debriefings.

We asked then we went onto and we asked about impact of the simulation study and guidelines. As you could see here, All Programs, the blue is familiar with the results of the simulation study and the green is familiar with simulation guidelines.

And as you could see, almost 80% were familiar with the simulation study and a little less than that, about 72%, were familiar...oh, I'm sorry, this is the LPN. So, about 80% were familiar with the simulation study and guidelines for RN programs, and about 72% familiar with the LPN and VN for LPN and VN programs.

The NCSBN study and simulation guidelines played major roles in changing policy regarding the use of simulation, so we asked why did your school... Did your school make policy changes, and then if yes, why were the policy changes made?

And as you could see, the simulation study was the number one answer, the simulation guidelines came in second, and then Board of Nursing policy, and changes, and statutes, and rules came in third. And then, there was an Other category which was very interesting where people said there was a lack of clinical sites, they had a new sim lab, things like that, also promoted the increased use of simulation.

About half of the programs surveyed adopted at least part of NCSBN's National Simulation Guidelines. So, to your left are All Programs and then as you could see, the LPN programs are a little less but still pretty close to All Programs, in general.

So, in conclusion, the evolving educational landscape is revealed to have more acceptance of the use of simulation than in 2010, there is an increased usage of high fidelity simulation across all types of programs and courses while barriers to the use of simulation are on a decline, and the simulation study and guidelines have both had an impact on the regulation of simulation and knowledge of each is widespread among the programs.

So, let me, we have some time, ask you if you have any questions? Richard, do you have anything you want to add? -

[Richard] [inaudible]?

- Not yet. It's coming up.

- Oh, not yet. It's coming up.

- Coming up. - [Sharon] Sharon in Montana. We're looking at regulating simulation, putting some roles in place. Do you have any idea how many states have regulations for simulation now since the study?

- Did we actually ask if they had any...

- No, this is... If we were [crosstalk]...

- The schools.

- ...it's now, one of the other [inaudible]. Yeah, this was just a survey to colleges, so you're asking what they're aware of but we just at... I think, the same year, maybe the issue of or the issue before the simulation study results came out in 2014.

We also published a summary of all the simulation regulations. We asked a couple of questions, and we got it from all the states, like, what was the status of simulation regulation in the states. And I think that's one of the things we do hope to follow-up on and do, and actually look into the regulations and see physically how it's changed but we haven't done that yet, so I don't know if we really have that answer or if this can answer that.

- [Nancy] But we do have some model language.

- Yeah. Yes.

- We have model language and it's also on Member Board Profiles. It's not as detailed as that article was but it is on member board profiles about, you know, approximately how much boards have. - [Female 1] Oh, okay. I didn't know that. We pulled that model language

[inaudible 00:18:24] how many people are using it.

- Yeah, well, this is Member Board Profiles so it's the survey about what all boards are using.

- It's on our website.

- Does it speak to what [inaudible 00:18:35]?

- Not in Member Board Profiles, so that maybe in Richard's new study. - [Bonnie] I have a question. I'm Bonnie from the New Hampshire Board of Nursing. The study was looking at, there was a reduction in the number of hands-on clinical hours, I was wondering if there was a question about non-hands-on clinical hours like observation hours because I've noticed some of our programs are starting to use observation in lieu of simulation or clinical?

- We did not ask that, and I have to tell you, I did not... Did you know that people were doing that?

- No, I didn't. In fact, I think some boards have rules so they can't.

- Oh, yeah. Mary? - [Mary] Little high for me. Thank you for your presentation, I think it was great that you did the second follow-up. I think it's...

My question is kind of falling up in one. Bonnie said in Washington State, we do now have rules that allow up to 50% simulation and most of our schools are doing some but we don't have anybody that's up to 50%. What we're really having some challenges in how it had helped schools is particularly a non-prelicensure programs because our rules says nursing education programs and it doesn't specify prelicensure and simulation study focused on that with the attention now to RN to BSN education and in making sure that their practice experiences in them across the country.

Those were the schools that we're really having trouble because I think it's hard for them to extrapolate what simulation would be in a non-prelicensure program. I think there are ways to do it. I'm just wondering if you have any thoughts about that given that the focus of the research this far has been on prelicensure.

- So, for RN to BSN?

- Yeah. So, they're not doing necessarily the same direct to patient care but they're still wanting to use simulation. And though they want to use it, they argue for it but there's a lot of misunderstanding of what truly would be a solid simulation for, kind of, indirect care.

I think there's a way but people were struggling with it, yeah.

- Nance, do you have any suggestions for that?

- Because we could use some help.

- Well, it's only 11 boards that actually regulate RN to BSN programs, so I think that's probably something that...

- It's our own problem.

- ...we don't have a lot of experience with. But, you know, I'm thinking more of the leadership kinds of things, and the community health simulations they have, and probably the clinical reasoning kinds of simulations. There's some great ones out there now.

- Right. I do, I agree. What we tend to find sometimes is for people to say we're going to role play in class, and that's simulation. It's not simulation, at least in our interpretation, but I think people don't have models. And I do think that's something... Even if we're not regulating it, our crediting bodies require it and so, it would seem to me that it's an issue that we somehow should probably grapple with, and define it.

I don't know if anybody else has had... - [Female 2] [inaudible] you were saying a question and that's a tabletop exercise which is commonly used in disaster education because there is no place to be able to go practice disaster management. There's roles that have to be...

You put people in role and you put them into open in a decision-making models and you give them introductory and injects to make problems, so it's objectively measured and it's driven by the problem. So, believe me, they can be as rigorous as a simulation that is very, very soft.

- I think the key there is rigorous.

- Right. So, the individual that's actually doing a tabletop exercise has to have education as well so it's the same... That's the key. And [crosstalk] that education is available, but it's through the federal government.

- Interesting.

- Any other questions? Are you all in a hurry to go? Well, if there are no other questions, we will let you go. This brings the entire day to a conclusion. I hope you have enjoyed it. I hope it has stimulated your thinking. I hope you all want to go home and apply for a grant.

Please feel free to call me if you have ideas for a grant and before you write the proposal, you want to run it by me and see if it's something that we would be interested in in funding. Absolutely feel free, you can contact Laura or Hannah. They will set you up and we can have a good discussion on it.

Keep your eyes on the Journal of Nursing Regulation, you'll see some of the studies you heard today published, if they haven't been already. And we're also always looking for articles for the journal so please send us your manuscripts, send us ideas for things you'd like to read in the journal. Keep us busy. Have a very safe trip home.