2021 NCSBN Scientific Symposium - Adverse Event Decision Pathway (AEDP): Two Canadian Case Studies Video Transcript

Event
2021 NCSBN Scientific Symposium

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Presenter
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- [Female] Brendan Martin is the Director of Research for NCSBN. He has more than 13 years in quantitative modeling and consulting. Brendan has extensive graduate-level statistical training in the fields of mathematics and public health sciences. His research interests include post-secondary access, biostatistics, healthcare reform, and regulation.

- [Brendan] Hello, my name is Brendan Martin, and I'm the director of NCSBN's Research Department. I'm here today to discuss the results of a recently completed international study evaluating the efficacy of the adverse event decision pathway. For today's presentation, we are going to cover a few major points.

To start, I'll provide a bit of background on the study to give you all the necessary context for why we wanted to pursue this study in the first place and what we hope to achieve. I'll then share a brief overview of the study methodology so that you are clear on how we selected our sample, went about collecting the data, and how we analyze the responses. Then, we'll get into the meat of the presentation in which I'll cover the results in detail before wrapping up with a few key takeaways.

As always, I'll attempt to leave ample time at the end for any follow-up questions or necessary clarification. So please feel free to use the chatbox to submit your comments as I go through the material. By way of background, in 2017, NCSBN partnered with the American Organization of Nursing Leadership and the National Association of Directors of Nursing Administration to conduct a survey of U.S. nursing leaders.

The goal of this outreach was to identify the determinants of underreported adverse events of facilities across the country. The primary factors that emerged from this analysis were confusion as to what constituted a reportable offense, a lack of clarity over how to report to an external regulatory body, and various facility-level barriers including existing policy and culture. The results of this study were then published in the Journal of Nursing Regulation in mid-2018.

Based on these findings, NCSBN went about the work of spearheading an international collaboration to test the efficacy of its new facility-reporting tool called the Adverse Event Decision Pathway. Here is a copy of the AEDP we used for the study. The AEDP was originally created in response to requests from nurse administrators and regulatory bodies for a tool to assist nursing leaders responsible for evaluation and reporting of adverse events.

This tool was developed via a direct collaboration between NCSBN and AONL. Following principles of the system's approach and just culture, the AEDP suggestions include a complete investigation of the adverse event as well as the nurse's behavioral choices. While we initially designed the pathway for U.S. nursing leaders, the tool was updated and the language broadened for an international audience in anticipation of this study launch.

We had two primary objectives for the AEDP study. First, we wanted to replicate U.S. findings. This would help us establish important context for interpreting the results and confirm, as the literature suggests, the existence of certain borderless barriers to adverse event reporting, so to speak.

And second, we wanted to assess the efficacy of the AEDP tool itself. You'll see this was achieved both through design and modeling. Regarding the methodology, the study utilized a pre-post survey design. NCSBN partnered with the British Columbia College of Nursing professionals and the College of Nurses of Ontario to survey nursing leaders in both provinces between May and November of 2019.

An initial 19-item confidential online survey was administered using Qualtrics. Questions were divided into three topic areas, demographic and professional information including sex, age, title, credentials, year and position, health facility information including size and location, and health facility practices with respect to adverse event tracking and reporting.

After completion of the baseline survey, respondents who opted in to ongoing participation received a copy of the AEDP tool for their reference. To facilitate the review and use of the AEDP tool, NCSBN provided each participant with background on the pathway, detailed instructions on how to use it, and definitions for key terms. Six months later, the same individuals received a second 14-item confidential online survey specifically tailored to assess the efficacy of the AEDP tool itself.

Questions were divided into two areas for follow up, health facility practices with respect to adverse event tracking and reporting and direct evaluation of the AEDP tool. Generalized estimating equation models were then used to assess changes in reporting frequency and type based on use of the AEDP guideline.

This approach appropriately counted for intraobserver correlation that resulted from the longitudinal study design while also allowing for sufficient flexibility to assess a ranked outcome, meaning ordinal, and adjust for other important covariates as necessary. Turning now to the results, response patterns did not differ significantly by province so data were combined.

The pre and post survey response rates were 21% and 34% respectively. A total of 663 participants responded to the pre-survey. Director of nursing, nurse manager, chief nursing executive or officer, and

other director or manager were the most common professional titles reported. Respondents were, on average, 50 years old and predominantly female.

A master's degree was the most frequent level of nursing education reported and long-term care, hospital, and community represented the three most common facility types. Overall, 7 in 10 participants were from Ontario while over half of nursing leaders reported working in an urban healthcare facility.

The median number of beds per facility was 140. Given the match pre-post design, the 121 individuals who responded to the post-survey largely mirrored the demographic and professional profile of the pre-survey sample. At baseline, two-thirds of nursing leaders reported their facility had an existing policy, criteria, or set of guidelines to decide whether or not to report a nurse to the provincial College of Nursing.

Of this cohort, 194 used established criteria, 138, facility policy, and 74, a decision-making tool. Further, about 64% indicated they were somewhat or extremely satisfied with the process their facility had in place. So right from the start, we realize this would likely be a pretty tough crowd. By and large, this group had access to an existing policy which they typically held in high regard.

Director of nursing, nursing manager, and chief nursing officer were among the most frequently listed positions with authority to report a nurse to the provincial College of Nursing, which is important information and you'll see how that comes into play later. A plurality of participants reported no obstacles to external reporting at about 43%. For those that did encounter difficulties, however, concern over possible legal ramifications, knowing what constitutes a reportable offense and how to make a report as well as facility culture and policy emerged as the most significant challenges.

Nursing leaders were also asked if the facility reports to the provincial College of Nursing when a nurse's employment is terminated due to their involvement in a serious adverse event. At baseline, only half of respondents, approximately 52%, indicated their facility would. Among the most common reportable workplace behaviors or issues were sexual abuse, repeated reckless behavior, fraud, and abuse.

Six months after receiving the AEDP tool, nursing leaders were again asked to share details on the reporting tendencies. Nearly all respondents, about 90%, actively used the AEDP tool for at least three months, which was great. Similarly, 91% of participants reported encountering at least one disciplinary case during the reporting timeframe and all but two indicated they used the AEDP tool to determine if external reporting was necessary.

Among those who used the AEDP tool, 95% thought it was moderately or very helpful and 82% reported it made a significant impact under disciplinary decisions. Over 80% of respondents also reported the AEDP tool made the reporting process more efficient, gave them more confidence in their final decision, helped them distinguish between nurse error and systems issues, and was useful when deciding whether or not to issue an external report.

Overall, 82% of participants reported the AEDP tool was superior or very superior to other established criteria or guidelines their facility already used. We felt this was a particularly interesting and important finding given this group's initial high regard for their existing policies and guidelines.

While the most common reportable workplace behaviors or issues remained largely unchanged upon follow up, there was a net gain of 10 percentage points or more among those who would now also report issues of diversion, you'll see that was up nearly 32%, reckless behavior, up 26%, termination, up 24%, and standard of care violations, now up 13%.

For most other workplace incidents, there were more limited gains or decreases observed. Overall, after using the AEDP tool for several months, approximately 7 in 10 respondents now indicated their facility would report a nurse whose employment was terminated due to their role in a serious adverse event. That represented a net gain of 17 percentage points from baseline.

Further, the proportion of participants who didn't know if their facility would report a terminated staff member decreased from about 13% to 2%. Basically, as you can see for yourselves, at every level, the reporting tendencies for serious adverse events requiring termination increased pre to post. To quantify these results further, after referencing the AEDP tool, respondents were 2.29 times more likely to report a nurse's involvement in a serious adverse event necessitating their termination.

This represented a statistically significant increase in reporting frequency. In addition, adjusting for the other policies or guidance, that about 20% of respondents indicated their facilities had implemented during the same period, the effect of the AEDP tool remained largely unchanged. Nurse managers were identified as the most appropriate audience followed closely by director of nursing and chief nursing officer.

So what are the key takeaways? First, it is critical that decision-making tools are tailored to meet the needs of their intended audience and can work in concert with other facility protocol. Respondents to this survey indicated the AEDP tool would be the most appropriate for nurse managers, directors of nursing, and chief nursing officers.

This represented a near-complete overlap with those individuals respondents had indicated were tasked with making reporting decisions at their facilities. In addition, even for facilities that enacted other policies or issued other guidance related to adverse event reporting during the same timeframe, the positive effect of the AEDP tool was not diminished, highlighting its utility and durability in the face of other competing strategies.

Importantly, for most workplace incidents, there was also minimal change in respondents reporting activities, meaning the AEDP tool was often utilized in a targeted fashion rather than increasing reporting across the board. Notable increases in reporting were typically limited to more serious circumstances involving issues of diversion, reckless behavior, termination, and standard of care violations.

Further and perhaps more importantly, the proportion of participants who were initially unsure if they would report a staff who was terminated due to their role in a serious adverse event decreased from 13% to 2% as I noted earlier underscoring user's increased knowledge and confidence in the process. And finally, overall, over 80% of participants reported the AEDP tool made the decision-making process more efficient, increased their confidence, and helped them distinguish between nurse error and systems issues.

Perhaps most interestingly, despite the fact that nearly two-thirds of respondents reported using an existing facility policy with which they were somewhat extremely satisfied, an astounding 82% said the AEDP tool was superior or very superior to other established criteria or guidelines. Thus, we concluded and we hope you'll agree, the AEDP tool is an effective, evidence-based tool that can be used to support facility decision-making.

With that, I will open the floor to discussion and any questions you might have. Hello, everyone. So the floor is now open for questions. As you gather your thoughts and submit your questions to the chatbox, I did just want to give you an update from the latest recording of this presentation and that is that the manuscript associated with this analysis is anticipated to be published probably in the next month or so in the Journal of Nursing Regulation.

So for those of you who are interested in some of the more detailed takeaways and how they relate to the literature on this topic, that manuscript is forthcoming. So with that, I will hesitate here and see if any questions start to roll in. One of the things that I will mention too, just as everyone continues to think over some questions, is that should you have a question that occurs to you after this session, I would encourage you to reach out to me directly at bmartin@ncsbn.org.

I'm happy to field questions today during the live Q&A session and/or after the event should something come to mind and you want clarification or you feel that follow-up would be helpful. So, please always just feel free to reach out. So one of the things, just again as we wait for some questions roll in, one of the things that was particularly, I think, interesting about this study was the opportunity for international collaboration.

So that is something that we here at NCSBN are looking to do more and more. And so this was an opportunity to naturally build upon some of the research that we had conducted, you know, just a few short years ago, in which we looked at the barriers to adverse event reporting for U.S. nursing leaders and this was a natural extension and an opportunity for collaboration with our Canadian neighbors.

And I think moving forward, this is something that we in the Research Department here at NCSBN really want to try to do more and more, and that is collaborate with our international partners and make sure that we're understanding the true impact and the issues related to nursing regulation across the global nursing community. You know, I'm not seeing any questions as they relate directly to this study.

So one of the things, to give a little bit more space in case something comes to mind, one of the things that I will just reiterate, that if you have a question that comes to mind after this session is over or after the conference, please feel free to reach out to me directly at bmartin@ncsbn.org.

And I think we're starting to get some questions coming in. So let's refresh the log, make sure that I'm not missing anything. So I am still not seeing. Here you go. Here you go. Okay. Yes, I am now seeing questions.

So the first one is, you indicated that respondents were inclined to see the tool. Will there be any follow-up to see if the quality of reporting improves post this study? Yeah, I think that that's a really good point.

I think continued follow-up with some of these folks really would shed further insight on kind of the longevity and how much legs this particular tool has for some of these facilities.

One of the initial sources of disappointment, and disappointment might be a bit of a strong word in this context was that we had a number of individuals who hoped to participate in the follow-up study who, for various reasons, found that they didn't have time or weren't able to kind of share their full evaluation. So I think continued follow-up and making sure that essentially, we really do understand if and how this tool is built into the reporting process in kind of a durable fashion, I think that that's a very good idea.

And then we have another question. Were there any indications of cultural or organizational factors that prohibited reporting? Yeah, this is an excellent question. So this actually bridged both of our studies on this topic. So one of the primary questions that we really wanted to understand was what barriers exist at the facility level in relation to external reporting frequency. So we did ask if there were any concerns regarding legal ramifications that had been communicated to them and/or just kind of writ large facility or cultural barriers.

And that was one of the more common responses that was provided. So there are certain, I like to kind of think about them as almost tiers of obstacles, there are some where it's just kind of the pure logistics of understanding, you know, what's reportable, how to report it, you know, where the materials or references are available to kind of help facilitate that reporting process.

I think of those as kind of lower hanging fruit, things that can be addressed a little bit more easily but then there are the cultural and the kind of, like, legal barriers or the perceived legal barriers associated with adverse event reporting that I think are a bit tougher of a nut to crack. And so I think that that's where something like the AEDP tool really does become useful since it is an objective, evidence-based tool that can kind of standardize the reporting process across facilities.

And then I had another question, how do reporting requirements differ in Canada versus the U.S.? So that's an excellent question. That's a little bit above my paygrade, I will say. So one of the interesting aspects of this research is because we were essentially navigating the reporting process with so many individuals across so many different organizations.

There was a lot of variability in the tools and the materials, the resources that people referenced. Some individuals across both studies actually indicated that there was more or less a moratorium on external reporting at their facility. So there's a great deal of variability, not just at the kind of like the country level or the state level or the province level but also, even at the institution level.

So when we were conducting this study, we tried our best to understand kind of the baseline parameters, like what was the context in which these actors were functioning in their day-to-day profession. And then with that information and criteria kind of about the profile of the institution and the individual responsible or tasked with making the report, we tried to control for those in the model or we tried to kind of control for them in the method that we employed in the pre-post design.

So there are assuredly differences in terms of the reporting requirements between the two countries but I'm not probably the best person to ask on that topic. So I think that's it for the questions so far. Please

feel free as, you know, we're going forward, please feel free to submit any additional questions that you might have.

Those are excellent questions to kick things off.