Error Disclosure: Simulated Practice Builds Student Confidence

Tracy Cleveland, EdD, PA-C, Amber Evenson, MS, PA-C, William Schweinle, PhD, & Katie Kassin, MS, PA-C

Introduction

Medical errors are among the leading causes of death in the United States. Many times, the error is not brought to the attention of the patient given a lack of confidence in bringing up the conversation. A barrier many healthcare professionals identify is simply the lack of training.[7] Other barriers clinicians identify include knowing how to report an error or inexperience with error reporting at their institution, fear of a poor reputation, consequences with litigation, practice, or other disciplinary action, and organizational culture.[1-3] In an article by Borz-Baba and colleagues in 2020, 87.5% of residents at the Yale Primary Care Residency Program reported feeling an increase in anxiety after making a medical error and increased anxiety about making future errors. Additionally, residents reported difficulties with sleep and a lack of confidence, and 18.8% had thoughts of leaving the profession after making a medical error.[1] While the prevention of medical errors is often the focus in medical and interprofessional education, developing the skills to disclose errors to patients and their families when things go wrong is also important. There is a recognized need for enhancing training on medical errors and error disclosure for healthcare providers to better prepare them with the confidence to disclose those errors.[9]

Patient safety is a critical component of healthcare and focuses on the patient's well-being by minimizing risk and harm and maintaining patient trust.[9] When patient safety is compromised, correcting the error and disclosing the medical error through clear, honest and empathetic communication from the physician assistant (PA) and other medical providers with the patient and family are pivotal to maintaining trust. Research shows that patients want transparency which includes a sincere and honest apology, an explanation as to the error that occurred and information on what steps are being implemented by the medical team and organization to prevent further errors from occurring in the future.[2-3] Research indicates that patients are less likely to seek litigation and are more likely to forgive if the medical provider demonstrates a commitment to disclosure.[2]

While there are a variety of ways to train medical professionals on error disclosure, simulation experiences and interprofessional education have been found to be effective.[2,8-9] Simulation experiences offer students and medical providers an opportunity to gain experience by engaging in conversations with simulated patients and have been found to improve teamwork and patient outcomes while decreasing medical errors.[4,8] Similarly, in an article by Myren and colleagues, team disclosure with the assistance of a nurse or care companion was found to be the most effective method.[9] In a study by Kim and colleagues in 2017, simulated error disclosure training increased confidence in medical interns and fourth-year medical students' ability to cope with medical errors.[7] Training students in error disclosure helps to create an organizational culture that can positively affect patient safety. An organizational culture that is focused on just medical care can be encouraged with error disclosure training. Many professionals noted that prior training in error disclosure made them more willing to address medical errors with patients, leading to an improved culture of safety and teamwork within healthcare organizations.[5]

PA education is a demanding environment where the number of topics to learn outweigh the time there is to teach them. PA educators are continually searching for ways to teach students the necessary medical knowledge in the most effective way. Simulation and interprofessional education are two ways in which PA students learn in the educational environment. Research by Myren and colleagues suggests training in medical error disclosure during a simulated experience with nursing students may be an effective way to teach students to deliver medical error disclosure.[9] The purpose of this research was to determine if PA and nursing student confidence improved with an error disclosure simulation.

University of South Dakota Physician Assistant Studies Program

Methods & Materials

Physician assistant (n=48) and nursing students (n=66) from two different academic years participated in an interprofessional activities day including a variety of training stations. For this station, students read an article on a medical error and error disclosure prior to the simulation event. A pre-brief was conducted with two physician assistant faculty who provided a scenario to the students of a medication error that occurred with a patient. Students were divided into interprofessional teams of one PA student and one or two nursing students and given 15 minutes to devise a plan to disclose the medical error. Interprofessional student teams performed the error disclosure with a standardized actor playing the patient's family member. Two debriefs occurred, one with the actor and faculty member immediately following the encounter and one with a group of 8-14 PA and nursing students. At the end of the day, students were surveyed to determine their level of confidence in performing error disclosure. The survey used a Likert Scale to assess their level of confidence and ranged from 1 (no confidence) to 5 (completely confident). Students were surveyed on their confidence prior to performing error disclosure on a standardized patient and their confidence following the standardized patient encounter and debrief.

Results

A repeated measures analysis of variance (ANOVA) was done. A significant improvement (p= <.0001) in student confidence was noted between the first (Nursing 3.47; PA 3.57) and the second measures (Nursing 3.74; PA 4.00) regardless of group (nurse vs. PA). A general linear procedure was conducted to assess whether there was a difference between nursing and PA students in slope of change between group and the first and second measure. It was non-significant (p = .24). Thus, we can assert that there was improvement in confidence between measure 1 and measure 2; nursing and PA students did not differ in this regard (Figure 1).

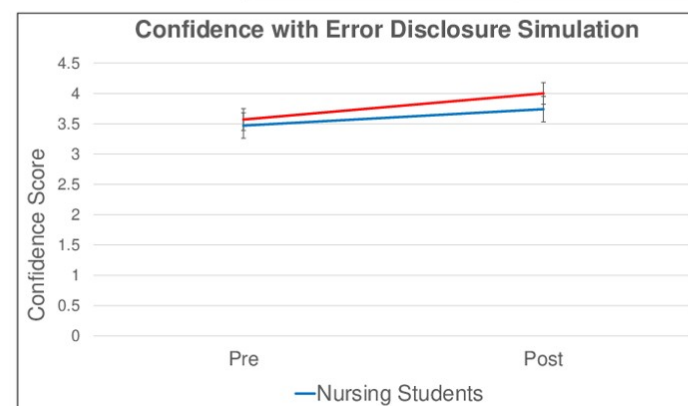| Program of Study	Number of Student Participants	Mean Level of Confidence- Pre	Mean Level of Confidence- Post
Physician Assistant (year 1)	48	3.57	4.00
Nursing (final year)	66	3.47	3.74

Figure 1: Both physician assistant and nursing students' confidence scores increased by practicing error disclosure on a standardized patient.

Discussion

Experiencing a medical error can be devastating and have grave consequences for a patient and their family. Failure to fully disclose a medical error in an appropriate manner can jeopardize patient-provider trust and undermine the providers oath to do no harm.[2-3] In contrast, healthcare providers often enter the field of medicine to help others. Making a medical error can be scary and demoralizing for the provider resulting in doubt of their ability to provide competent, safe and effective patient care.[9] Providers often experience fear and uncertainty when having to disclose a medical error to a patient and their family.[1] Training that equips providers to communicate in a transparent, honest and empathetic way and explains how the error occurred and what is being done now and, in the future, to mitigate errors from occurring again is paramount.[2-3] Our research showed that both physician assistant and nursing students gained confidence by practicing error disclosure with a standardized patient through an interprofessional team approach. This is consistent with the literature by Kim and colleagues which also showed an increase in confidence in medical interns and fourth-year medical students' ability to cope with medical errors.[7] While our focus in medical education is to develop medical providers who are competent and care for patients through a lens of patient safety, it is vital to teach students how to react when things don't go exactly how they are supposed to. While it would be ideal if no medical error was ever made, medical providers are human. Practice with disclosing medical errors, as was done in this study, can help patients, their families, the medical team and the healthcare organization. For the patient, error disclosure by a medical team that has had training can help provide the care and support the patient and their family needs when they have been wronged. For the medical provider and medical team, having the tools to work through any anxiety or self-doubt[9] that they may experience from the error can hopefully help to prevent performing another error. Finally, the medical organization can learn from the error by instituting processes or checks and balances to prevent further errors from occurring in the future.

Conclusion

Simulation is a common way for students to practice and improve upon challenging skills necessary in healthcare. The utilization of a standardized patient helped students experience how to disclose the medical error and respond to how a patient's family may react. As a result, the medical error disclosure simulation experience proved to build PA and nursing students' confidence with performing this skill in the future. Error disclosure training through a simulated experience provides the medical team with an opportunity to disclose the information in a way that may be better for the patient and can help the healthcare organization improve processes for patient safety and care in the future.

References

1) Borz-Baba C, Johnson M, Gopal V. Designing a curriculum for the disclosure of medical errors: A requirement for a positive patient safety culture. Cureus. 2020;12(2):e6931. Published 2020 Feb 10. doi:10.7759/cureus.6931
2) Brock DM, Quella A, Lipira L, Lu DW, Gallagher TH. Physician assistants and the disclosure of medical error. Acad Med. 2014;89(6):858-862. doi:10.1097/ACM.0000000000000261
3) Disclosure of Errors. PSNet [internet]. Rockville (MD): Agency for Healthcare Research and Quality, US Department of Health and Human Services. Published September 7, 2019. Accessed February 27, 2024. https://psnet.ahrq.gov/primer/disclosure-errors#
4) Edwards JJ, Nichols A, Bakerjian D. Simulation Training. PSNet [internet]. Rockville (MD): Agency for Healthcare Research and Quality, US Department of Health and Human Services. Published March 1, 2023. Accessed February 27, 2024. https://psnet.ahrq.gov/primer/simulation-training#:~:text=Simulation%20offers%20a%20way%20for,the%20course%20of%20their%20training.
5) Etchegaray JM, Gallagher TH, Bell SK, Sage WM, Thomas EJ. Error Disclosure Training and Organizational Culture. In: Battles J, Azam I, Reback K, et al., editors. Advances in Patient Safety and Medical Liability [Internet]. Rockville (MD): Agency for Healthcare Research and Quality (US); 2017 Aug. Available from: https://www.ncbi.nlm.nih.gov/books/NBK508075/ Published August, 2017. Accessed September 16, 2024.
6) Gallagher TH. A 62-year-old woman with skin cancer who experienced wrong-site surgery: Review of medical error. JAMA. 2009;302(6):669-677. doi:10.1001/jama.2009.1011
7) Kim CW, Myung SJ, Eo EK, Chang Y. Improving disclosure of medical error through educational program as a first step toward patient safety. BMC Med Educ. 2017;17,52. doi.org/10.1186/s12909-017-0880-9
8) McDonough KA, White AA, Odegard PS, Shannon SE. Interprofessional error disclosure training for medical, nursing, pharmacy, dental, and physician assistant students. MedEdPORTAL. 2017;13:10606. Published 2017 Jul 21. DOI: 10.15766/mep_2374-8265.10606
9) Myren BJ, de Hullu JA, Bastiaans S, Koksma JJ, Hermans RPMG, Zusterzeel PLM. Disclosing adverse events in clinical practice: The delicate act of being open. Health Commun. 2022;37(2):191-201. DOI: 10.1080/10410236.2020.1830550

UNIVERSITY OF SOUTH DAKOTA