Analysis of Learner Questions Posed During Project DOCC Simulation Experiences

Brooklyn M. Vrolyk¹, B.S., Kori A. Crawford², B.S. ¹ LEND Trainee, West Virginia University Center for Excellence in Disabilities, College of Education and Human Services, Master’s student, Morgantown, WV, ² LEND Trainee, West Virginia University Center for Excellence in Disabilities, School of Social Work, Master’s student, Morgantown, WV

**Background**

1. More infants are surviving prematurity and complex medical diagnoses and require complex care as they continue to grow and develop.
2. Parents of children with special healthcare needs often become stressed and confused by daily demands of coordinating care between specialists, therapies and their community with no real sense of someone “driving the bus”.
3. The goal of Project Delivery Of Chronic Care (DOCC) is to introduce future medical professionals to the Patient Centered Medical Home (PCMH) model which emphasizes the relationships among the patient, family and medical team.

Education and training for future medical professionals on the PCMH model through Project DOCC.

Better care for families and children with complex medical needs.

In 1994 three mothers of children with complex medical needs created a national curriculum titled Project DOCC (Delivery of Chronic Care). This simulation experience, which is the focus of our study, emerged as an adaptation from that national curriculum, which uses parents as teachers. This national curriculum can be used as the basis for starting Project DOCC in one’s area.

**Objectives**

Project DOCC is an effective, engaging and unique way to educate students on the PCMH model and complex pediatric care through the real experiences from the parents of children with complex medical needs acting as educators.

Methods

* Learner Pre-Brief
* Prior to the simulation day, student-learners complete an online learning module and pre-test surveys.
* On the day of the Project DOCC experience, student learners are presented with information about the PCMH model, the learning objectives and timeline for the day. Each session differs slightly.

Parent interview simulation

* Students ask questions and parents share their real experiences with navigating the medical system and provide insight into having a child with complex medical needs.
* Video recordings of each session were transcribed and questions posed by student-learners were categorized into the seven qualities of a medical home defined by the American Academy of Pediatrics (2002)
* The amount of questions per category were compared to other variables within that date’s simulation

De-brief and intergration of knowledge

* Following the simulation interview, all DOCC participants gather to process their learning and take-aways from the experience with the parent-educators
* After leaving the experience, student-learners complete a post-test survey.
* Pre and post-data from the student-learners self reports were evaluated and compared.
1. The five sessions were transcribed by the authors.
2. Learner questions were categorized into one of the seven medical home categories (Figure 1).
3. Factors within the individual simulations, and the results of the categorization of questions posed were compared to determine any correlations (pie charts).
4. Pre and post-data self -reports from the student learners were reviewed to determine their experience with Project DOCC (Table 1).
5. Recommendations were made for the improvement of future simulation experiences based on the conclusions drawn from the data.

\*limitations observed were related to students being given less time with parents, asked to question multiple parents, or medical residents not being present, therefore, reducing the quantity and quality of questions

\*We determined Dec. 11, 2019 as our most successful simulation due to questions asked and range of categorical data encouraged by the presence of a medical resident and the team building exercise

**Findings/Results**

* Table 1 indicates that learners left the simulation with a greater understanding of a PCMH
* The implementation of the team building exercise yielded a more cohesive team dynamic and a greater depth to questions asked as evidenced by a 40 question increase and pronounced diversity of categories covered
* Categories associated with Patient/Family Centered and Compassionate questions were consistently higher across all simulations
* A 40-minute session with one parent yielded greater results than a 20-minutes session split between 2 parents
* Medical Residents often took a leader role within the care team and encouraged more robust conversation

**Conclusions**

* Team building exercise established a dynamic and created rapport between team members that proved to be effective in increasing the quality of questions
* The amount time spent with parents was crucial because each parent had a complex story to share and when students were allowed more time with parents they had the opportunity to increase their conversational depth
* Medical Residents consistently took the leader role of their teams

**References**

American Academy of Pediatrics. (2002). The Medical Home. Pediatrics 2002: *110* (1), 184-186.

**Acknowledgements**

This simulation would not have been possible without the help and guidance of West Virginia parents of children with special healthcare needs who participated as educators in this project. Participants include the parent-educators as well as students from the schools of nursing, medicine and pharmacy. The Project DOCC team at WVU is composed of the following faculty; Gina Baugh, PharmD; Christy Barnhart, MSN, RN; Linda Friehling, MD; Timothy Lefeber, MD; Kathryn Smalley, CHSE; Lori Heginbotham, MEd; Tina Crook, and Erika Hastings. This work was supported by the U.S. Department of Health and Human Services, Maternal and Child Health Bureau Family to Family grant number H84MC31692.