

BACKGROUND

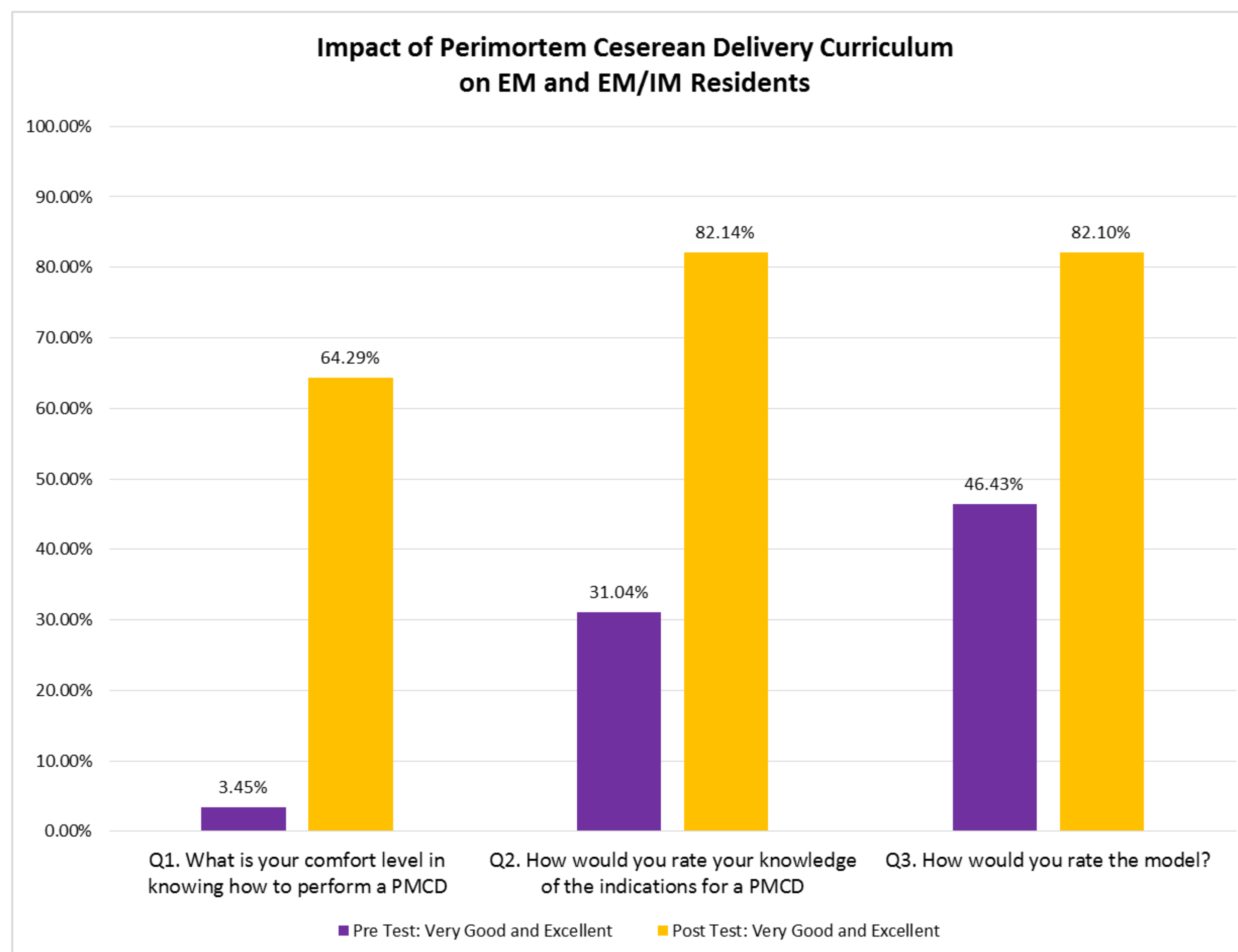
Maternal Cardiopulmonary Arrest (MPCA) is fortunately a rare occurrence, estimated to occur in 1/12,500 deliveries¹. Perimortem Cesarean Delivery (PMCD), when done in a timely fashion and in the appropriate selected patient, can have the potential of saving the lives of both the mother and the fetus. Given its rarity, teaching emergency medicine residents an approach to deliver this emergent care is necessary especially if their future practice is at a site where in house obstetrician gynecologists are not available.

MATERIALS & METHODS

Drs. Bradby and Sutton adapted a model from a cesarean section model originally developed by Dr. Meg O'Reilly at Oregon Health and Science University². The model included an abdominal wall, uterus, and a term fetus with placenta. The model was affixed to a high-fidelity mannequin in the simulation laboratory. Dr. Stair ran the high-fidelity mannequin with vital signs and condition to match those described in the ALiEM Sim Case Series on Perimortem Cesarean Section³. Prior to attending the simulation, Emergency Medicine Residents reviewed a video on how to approach a Perimortem Cesarean Delivery⁴. At the beginning of the conference, a chalk talk lecture was given by Dr. Sutton to review and reinforce the important steps of handling this emergency. The emergency medicine residents were divided into 3 "Code Teams". During the simulation, the team performed ACLS after the patient entered PEA and performed a perimortem cesarean delivery when it became indicated. After the session, the residents were given immediate feedback on their team performance of the code and their performance of the PMCD by Drs. Stair and Sutton. Finally, the resident learners were provided a take home handout that summarized the key elements for performing a PMCD on one page.

RESULTS

A pre/post survey was administered to the 29 participants of the educational session, composed of EM and EM/IM residents. At the beginning of the session, 3.45% of participants felt their baseline comfort in performing a PMCD was Very Good or Excellent compared to 64.29% after the session. Further, at the beginning of the session, 31.04% of participants felt their baseline knowledge of the indications for PMCD was Very Good or Excellent compared to 82.14% after the session. Finally, 46.43% of participants expected the model to be Very Good or Excellent, but after using the model, 82.10% thought the model was Very Good or Excellent.



DISCUSSION

Simulation procedures are important for enhancing resident education, especially when simulating rarely seen clinical encounters where minutes matter such as in PMCD. Residents who participated developed increased comfort in performing the necessary skills of a PMCD if they are ever faced with this emergency and no obstetricians are available to assist. This curriculum will be incorporated into the medical education curriculum. It is the hope of the authors that this curriculum could be adopted at other institutions to share an approach to teaching residents this important skill.

REFERENCES

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FOR MORE INFORMATION

