Pediatric Advance Life Support

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Background

PALS (Pediatric Advanced life support was initially created in 1988 with several revisions
that have been done over the years. It was created to more quickly identify pediatric respiratory failure,
arrythmias, and cardiopulmonary arrest in pediatric patients, and how they differ from adults.
Studies on its efficacy have shown improvement in identification, and survival of pediatric patients(1).

Residents of every training level are expected to serve as critical members of the team during emergency situations for both adults and children.
Training and certifications are provided as a first year residents, but unfortunately, re-training and simulation is not a formal part of the residency experience.
Peer assisted learning has shown to be beneficial in training of different techniques.
Formalized structured peer-assisted
learning, has shown to have benefit, as a supplementary means of improving knowledge when faculty are unavailable (2).

Objective

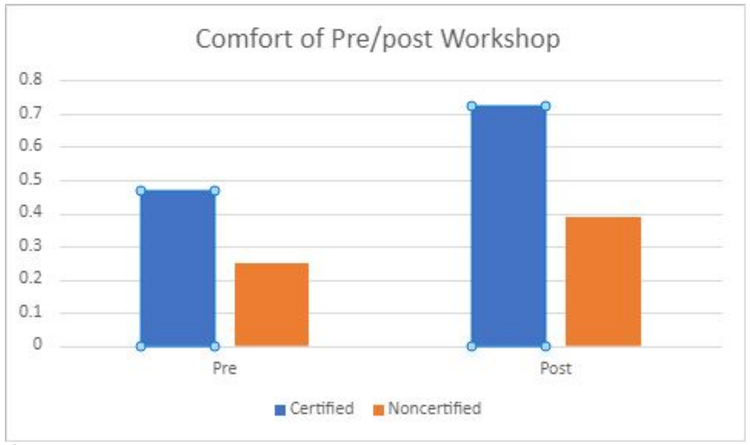
The aim of this project is to assist residents in becoming more efficient and confident leaders in pediatric emergency situations by providing structured re-fresher training and simulation cases while assessing resident confidence in PALS (Pediatric Advanced Life-support).

Methods

Residents were provided with simulation cases, as well as a formal presentation reviewing PALS cases. A pre-and post survey was also taken regarding confidence of both certified, and non-certified (not yet certified residents).

The data from the surveys was then compiled and graphed.

Results



Pre-Workshop Survey.

1. Are you PALS certified
a. Yes
b. No

2. Have you ever had to run a code or been in charge during an inpatient emergency?
a. Yes
b. No

3. Have you ever received formal training on running codes?
a. Yes
b. No

4. How comfortable are you with the application of PALS algorithms and responding to inpatient emergencies? (1 least, 5 excellent)
a. 1
b. 2
c. 3
d. 4
e. 5

Post-Workshop Survey

1. How educationally beneficial did you find the PALS lecture?
a. Extremely beneficial
b. Very beneficial
c. Somewhat beneficial
d. Slightly beneficial
e. Not at all helpful

2. How educationally beneficial did you find the PALS practice cases?
a. Extremely beneficial
b. Very beneficial
c. Somewhat beneficial
d. Slightly beneficial
e. Not at all helpful

3. How educationally beneficial did you find the PALS workshop?
a. Extremely beneficial
b. Very beneficial
c. Somewhat beneficial
d. Slightly beneficial
e. Not at all helpful

4. After attending the workshop, how did your confidence change with relation to respond to a code or rapid response in the inpatient setting?
a. 0% better
b. 25% better
c. 50% better
d. 75% better
e. 100% better

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Discussion

Overall, this study demonstrates that residents confidence levels improve after completing the PALS workshop. This not only shows the importance of training for pediatric emergencies,. Studies have shown that while student- lead teaching sessions are often rated lower than staff in-terms of confidence levels, the outcomes between student lead and faculty lead groups have been shown to be equivalent. An example of this can be found in this study in which msk ultrasound was taught to medical students by both fellow students and faculty(3). So although, residents and students have the skills to be proficient, they lack confidence, which has the potential to inhibit their leadership skills.

Although the measurement of improvement was subjective, and the sample size was relatively small, we are encouraged by improvement between the pre & post workshop surveys. The intention of this study was to demonstrate the importance of peer teaching and in person simulation experiences, when it comes to improving confidence. More exposure to high stress situations, in a controlled simulation environment, allows residents of all training levels to become more effective leaders.

Conclusion

Student led peer-review sessions can be a valuable means of providing refresher courses for residents, and additional sessions would be beneficial with retention of knowledge and development of leadership skills.

References

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