Implementation and Evaluation of a First Aid Training Workshop for Medical Students

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Context

Medical school students are exposed to many situations in which emergencies could arise yet first aid training is not provided at entry.

Objectives

The goal of this initiative was to improve first-year medical students' confidence and competency in managing common emergency scenarios through a structured first aid workshop. The project aimed to fill a gap in early medical education by providing both foundational knowledge and practical skills in first aid.

Description of Innovation

A blended first aid workshop was developed, consisting of an asynchronous online module followed by an in-person, hands-on skills session. The online module was developed using the American Red Cross FIrst Aid curriculum and covered how to evaluate an emergency scene, activate EMS, assess responsiveness, assess airway, breathing and circulation, treat an unresponsive victim, treat a choking victim, treat anaphylaxis, treat an opioid overdose, manage shock in the field, treat open and closed wounds, treat a bone or joint injury with a splint and sling, and treat a burn. The in-person component allowed small groups of 6 to 7 students to practice emergency response techniques, including scene assessment, airway and breathing evaluation, choking interventions, EpiPen administration, tourniquet use, and splint/sling application. The workshop was implemented for 77 first-year medical students at the University of Hawai‘i John A. Burns School of Medicine during their first block.

Evaluation of Innovation

The workshop was evaluated through student-perceived comfort performing the skills taught and performance on a multiple choice question quiz. Data analysis was conducted using Microsoft Excel. The multiple-choice quiz was graded out of 10 and the average score was calculated. Comfort was measured on a 5 point scale with 1 being not comfortable and 5 being very comfortable. Average comfort score was calculated for each skill before and after the workshop. Average score before and after the workshop was compared with a student's t test and p values were recorded. After completing the workshop, students answered the multiple-choice question quiz with a 100% completion rate and 91% accuracy. Furthermore, the students' confidence in performing first aid and responding to an emergency situation

significantly increased across all skills evaluated ($p<0.001$) as per their survey responses also with a 100% completion rate.

Discussion/Key Message

The demonstrated efficacy of this workshop highlights the value of incorporating structured first aid training into medical education. These results align with prior studies demonstrating that early exposure to emergency and first aid training improves preparedness and self-efficacy (Ghory et al., 2017; Stodola et al., 2024). The online format of the module allows this workshop to be easily repeated by providing the workshop link to future medical school classes. However, upperclass student volunteers are needed to run the in-person skills sessions. Overall, this training can enhance the preparedness of medical students and contribute to a more comprehensive medical school learning experience.

Target Audience

This innovation is relevant to medical educators, curriculum designers, and academic leaders seeking to improve emergency preparedness and practical skill development among preclinical medical students.

References

1. Ghory, H., Carter, W., Konopasek, L., Kang, Y., Flomenbaum, N., & Sperling, J. (2017). Introductory Emergency Medicine Clinical Skills Course: A Daylong Course Introducing Preclinical Medical Students to the Role of First Responders. *MedEdPORTAL : the journal of teaching and learning resources*, *13*, 10533. https://doi.org/10.15766/mep_2374-8265.10533
2. Stodola, M., Lantz, M., Chen, T., Marelich, A., & Philip, I. (2024). First Aid Curriculum for Second Year Medical Students. *Journal of education & teaching in emergency medicine*, *9*(3), SG63–SG104. https://doi.org/10.21980/J8FH2J