

The Use of Simulation in Pre-doctoral Medical Emergencies Training

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Objective: This purpose of this study was to determine the level and method of teaching medical emergencies management in U.S. pre-doctoral programs, particularly the extent to which patient simulation techniques are employed for instruction and /or assessment. **Methods:** In the fall of 2013, a 22- item survey instrument was developed, piloted with a small cohort of oral and maxillofacial surgery faculty, and modified based on feedback. Survey items assessed curriculum content and teaching methods used for medical emergencies training, and program demographics. A link to the survey was sent to the institutional email of the Academic Dean and Oral and Maxillofacial Surgery Department Chair at each U.S. dental school. The internet-based survey platform Qualtrics was used to record responses and track non-responders. Two follow-up reminders were sent via email to non-responders. Response data were de-identified and statistical analyses were conducted. **Results:** Completed surveys were returned by respondents from 40 schools (62.5% response rate). Of responding schools, 95% (38) offered medical emergencies training; teaching methods included lecture, seminar, and small group learning. Median instruction time was 12 hours. Of responding schools, 12 reported providing management of medical emergencies instruction via high fidelity patient simulation (HFPS), 16 used role playing, 5 employed computer-based programs, and 6 utilized standardized patients. While 6 schools reported employing HFPS for 3-5 yrs., no school reported using it for > 5 yrs.; however, 4 schools reported utilizing role-playing for > 5 yrs. While class size was not significantly associated with use of HFPS, cost was significantly associated with non-use of HFPS ($p=0.0274$). **Conclusions:** Although the vast majority of pre-doctoral dental programs educate students in the management of medical emergencies, few programs utilize simulation as an instructional method.

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