



MEDICAL EDUCATION
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Medical Education Scholarship Forum Proceedings

Student based research in medical simulation: Extending CanMEDS beyond the undergraduate curriculum

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Purpose: The Tuckamore Simulation Research Collaborative (TSRC) has six core pillars for success; mentorship, research, resources, collaboration, facilities and networking. The TSRC conforms to the idea that the whole is greater than the sum of its parts. The objective of this work was to survey medical students currently involved in the TSRC to discover how their experiences align with the CanMEDS framework. **Methods:** The primary author (DW) conducted a focus group with 6 of 8 undergraduate medical students who were paired with a TSRC mentor in an area of medical simulation. DW led the focus group session and consolidated participant comments, which were fed back to the group for review and approval. **Results:** Since its 2013 inception, the TSRC has prompted varied student research initiatives in medical simulation. Projects include novel research in communication barriers between rural and urban physicians with a role for simulation, development of a point of care ultrasound assessment tool and curriculum, and a needs assessment for simulation in rural and remote communities. Additionally, students have completed simulation scenarios in infant trauma, transportation medicine, drug overdose, drug muling, ectopic pregnancy, burn management and communication. Several of these projects have been published with others being presented at conferences nationally and internationally. Students linked these experiences to the seven roles in the CanMEDS framework. Students agreed the mentored experiences allowed them to develop fundamental skills linked to communicator, collaborator, and manager. Students were also encouraged to publish their work and believed this process highlighted the scholar, and professional CanMEDS roles. Notably, students felt confident that knowledge gained during this experience facilitated growth as a medical expert and a health advocate. **Conclusion:** Canadian medical education is driven by the Royal College CanMEDS framework. The TSRC pillars of networking, mentorship, collaboration and research directly equate to the CanMEDS roles. Students enjoy the TSRC research experience because of dynamic mentors who encourage autonomy and provide expert guidance. Through simulation scenario development and publication, students gain both clinical knowledge and valuable scholarly research skills. The reward for students and mentors is a concrete product that can be disseminated to the greater medical community.