Preparing for Rural Practice: Dental Students' Preparedness in Managing Medical Emergencies

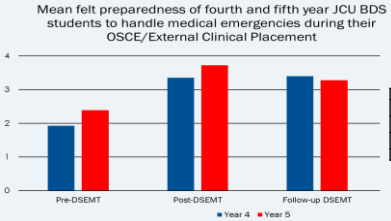
Introduction

Today's aging population and incidence of chronic disease results in a higher proportion of medically compromised patients, accounting for the increased likelihood of a medical emergency during dental treatment.[1] Previous studies have identified that even after emergency medical training and lectures, students lack confidence and in some cases, are unable to competently manage medical emergencies under supervision.[2,3,4] As such, it is crucial to ensure a curriculum which best prepares students to pre-empt and manage medical emergencies, which is also a requirement of the Professional Competencies of a Newly Graduated Dentist.[5] The dental simulated emergency medical training program (DSEMT) provided at JCU is delivered by emergency educators who simulate patients experiencing medical emergencies during a dental procedure, creating an authentic, high fidelity workshop for third, fourth and fifth year dental students.

Aims

- To determine the efficacy of DSEMT in preparing dental students for pre-empting, identifying, and managing medical emergencies by exploring the perceived preparedness of fourth and fifth year JCU Bachelor of Dental Surgery (BDS) students
- To provide evidence-based research findings that inform the JCU BDS medical emergency training, enabling more competent graduates

Results

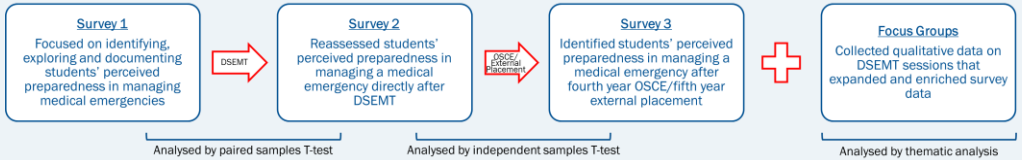


	Key
1	Not at all prepared
2	Somewhat prepared
3	Moderately prepared
4	Very prepared

"A medical emergency doesn't really come down to how much knowledge you know – it's experience."
- Fifth Year Student

"The more realistic it is, the better you will learn and... simulation is the closest it will get to a real life scenario."
- Fourth Year Student

Methods



Discussion

The results obtained from both statistical and thematic analyses in this study support the benefits of DSEMT in preparing dental students in pre-empting, identifying, and managing medical emergencies. Both fourth and fifth year students expressed a significant increase in preparedness directly following DSEMT. Student feedback indicated that the practical aspect of DSEMT was equally, if not more, valuable than the theoretical component. The active participation, high fidelity simulated acting, and wide range of relevant scenarios contributed to the program's distinctiveness and success.

Many students praised DSEMT for its authentic, scenario-based simulations in a dental setting, which suggests that DSEMT would also be beneficial in other dental universities. By implementing DSEMT in other BDS curriculums, more dental students can familiarise themselves with how to pre-empt, identify, and manage a medical emergency in a dental setting, enabling more competent graduates.

Conclusion

DSEMT is an effective strategy in preparing undergraduate dental students to competently respond to medical emergencies when practicing in diverse, regional, rural and remote contexts.

References

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