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Driving me crazy: the effects of stress on the driving abilities of paramedic students.

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A12.ISS. Strategies for incorporating patient safety education in paramedic education using the IHI Open School.

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Introduction: Every year, thousands of patients die and millions are harmed by medical care provision. Paramedics care for patients in dynamic, and challenging environments every day, which creates conditions that are ideal for mistakes to occur and for harm to be caused as a result. Knowledge of patient safety is recognised as a competency for paramedics in several jurisdictions, yet general awareness among paramedics of patient safety issues remains poor. The Institute for Healthcare Improvement (IHI) Open School courses were identified as a potential solution to this identified gap. These courses have been successfully integrated into various health professions education programs in other institutions; however, no literature was discovered which discussed the integration of these courses into paramedic education. **Methods:** Eight online courses from the 13-course IHI Basic Certificate in Quality and Safety were embedded into the curriculum of a professional issues class in a paramedic diploma program in Ontario, Canada. Courses were completed outside of classroom time over one semester, and a percentage of activity marks for the class were awarded to students on the completion of the eight courses. Students provided a copy of certificates to prove completion of training. **Results:** In this pilot program, 41 paramedic students in the class (98%) completed all 13 courses, and were awarded the IHI Basic Certificate in Quality and Safety. Students described the courses as “highly applicable to paramedicine and pre-hospital care”. In addition, students state that completing the certificate gave them knowledge of “the means by which change can be enacted”. The completion of the courses outside of class time was achievable, and feedback from students has been overwhelmingly positive. An additional 43 students are currently enrolled in the courses, with completion expected by December 2018. **Conclusion:** The IHI Open School courses are an easy to implement strategy for paramedics looking to gain a brief, concise education on quality and patient safety. It is our goal to integrate the IHI Open School Basic Certificate across all classes in the two-year diploma program. We hope this will lay a foundation for professional practice that is based on safe, high-quality care provision.

A13.ISS. Driving me crazy: the effects of stress on the driving abilities of paramedic students.

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Background: Previous research has demonstrated that stress has a negative impact on the performance of paramedics while performing medical related tasks. Acute stress has also been shown to negatively impact the driving abilities of the general population increasing the number of critical driving errors performed. No literature was discovered that discussed the effects of stress on the driving abilities of paramedics. **Methods:** Paramedic students underwent a driving ability assessment in a driving simulator. We then exposed them to a stress inducing medical scenario. Another driving assessment was then conducted. The numbers, and types of errors were documented before and after the scenario. **Results:** 36 students participated in the study. Paramedic students demonstrated no increase in overall error rate after a stressful scenario, but demonstrated an increase in three critical driving errors; failure to wear a seatbelt (3 baseline v 10 post stress, $p=0.0087$), failing to stop for red lights or stop signs (7 v 35, $p<0.0001$), and losing controlling of the vehicle (2 v 11, $p=0.0052$). **Conclusion:** Paramedic students demonstrated an increase in critical driving errors after a stressful simulated clinical scenario. Paramedics are routinely exposed to acute stress during the course of their working day. This stress could increase the number of critical driving errors that occur. These results reinforce the need for further research, and highlight the potential need for increased driver training and stress management education in order to mitigate the frequency and severity of driving errors made by paramedics.

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