THE EFFECT OF MOBILE DEVICE USE ON ANESTHESIOLOGY RESIDENT AWARENESS OF ADVERSE INTRAOPERATIVE EVENTS IN THE SIMULATION LAB: A PILOT STUDY

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OVERVIEW

• Introduction and rationale
• Study question
• Aims
• Hypothesis
• Methods
• Outcomes
• Limitations
INTRODUCTION

- Increasing use of mobile devices and tablets in medicine and in the operating room
- No evidence to support their safety
- Studies have shown distractions during perioperative period are prevalent
- Some distractions have negative effects while others have no effect

Campbell 2012
Slagle 2009
Wax 2012
STUDY QUESTION

Among anesthesia residents, does the use of a mobile device during simulated surgery affect vigilance compared to residents who do not use a mobile device?
AIMS

To determine the effect of mobile device use on...

Primary
- Recognition of adverse intraoperative events
- Response (correct vs. incorrect) and response time

Secondary
- Frequency of errors
- Retrospective recall/memory of intraoperative events
The use of mobile devices will decrease vigilance and increase the frequency of errors in a simulation session.
METHODS

- Simulation session: standard OR case e.g. lap chole
- Participants: residents (or staff?) randomized to intervention or control group
- Intervention group uses mobile device (e.g. iPad game)
- Standardized adverse intraoperative events
OUTCOMES

- Correct basic procedure for induction and maintenance
- Recognition of adverse events/abnormal vital signs
- Response time and correct vs. incorrect response
- Errors
- Post-simulation questionnaire
LIMITATIONS

• External validity
• Simulated scenario
• Quality of intervention
• Sample size
• Blinding
REFERENCES

- Images:
  - http://rafiufishbone.blogspot.ca/2015/07/cell-phones-in-operating-room.html
  - http://www.ngh.on.ca/images/recruitment/mcmaster-university.png
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