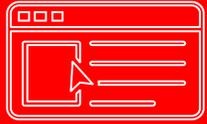


Under the influence.....The use of Personal Electronic Devices (PEDs) in the OR

By DeElla Johnson MSN, RN



Cell phones



Beepers



Group Chats



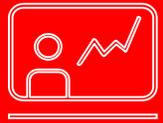
Tablets



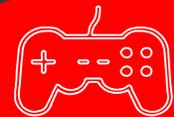
Security



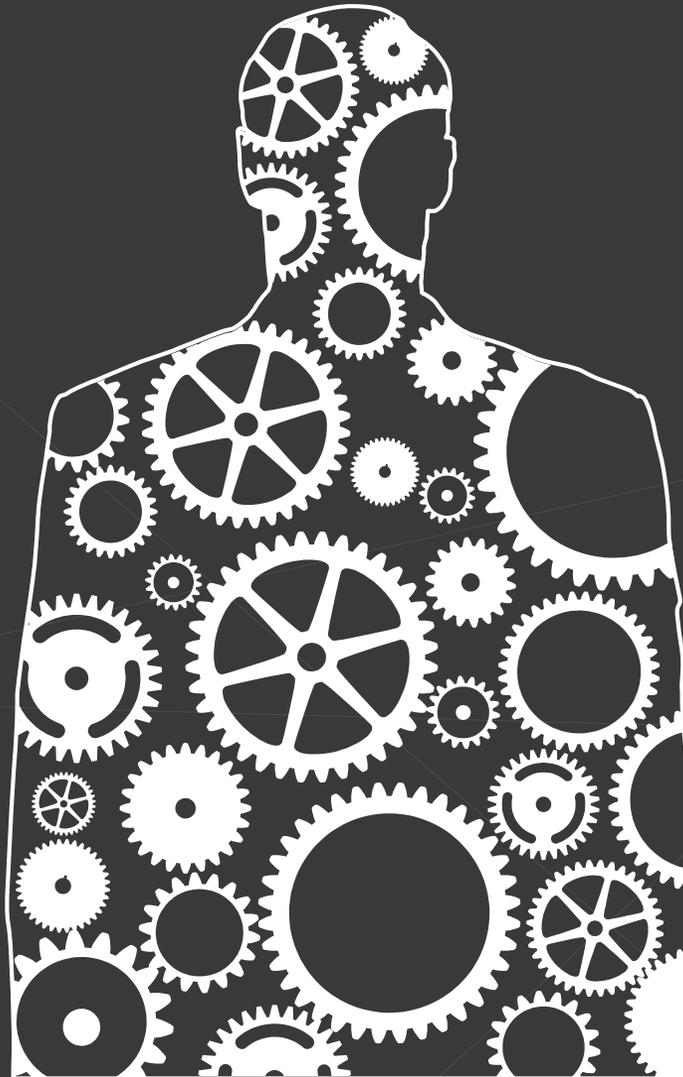
Drug look ups



Social Media



Games



Faculty Disclosure:

no conflicts of interest with any of the material presented in this presentation

Learning Objectives:

Examine

Examine patient safety implications related to PEDs in the OR

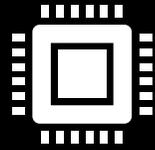
Review

Review legal implications of inappropriate use of PED in the OR

Evaluate

Evaluate OR staffs responsibility in managing PEDs in the OR

Historical perspective & Background



The cellphone was first invented in the US in 1973 in the form that we currently recognize but not made available to the public until 1983, in the last 35 years the cellular and mobile device technology has exploded (Stephens, 2017)



According to the National Highway and Safety Administration 2018 in the US, 1.1 million accidents resulting in 341,000 injuries as a result of distracted driving related to cellphone use

(Saran and Papadakos,2018)



This technology is now an integral part of the health care setting. Hospitals have invested significantly in the upgrade from paper to the electronic medical record guaranteeing wi-fi and cellular networks throughout their facilities (Stephens, 2017)

Why this matters

- Automation including the use of technology can place the provider in the role of the monitor instead of the operator reducing the quality of feedback and vigilance to environmental changes (Stephens, 2017)
- Situational awareness as the gathering of the right information, analyzing it then making the correct decisions based on that analysis (Stephens, 2017)
- Approximately 80% of healthcare workers admit to using their PEDs at work, increasing the risk of inappropriate use (Snoots , 2016)

Impact on healthcare workers behavior

According to a survey completed by Smith et al. (2011) 55.6% of perfusionist admitted to using their cellphones during their cases and 49.2% of those were sending text while their patients were on cardiopulmonary bypass with 7.3% admitting that their clinical practices were negatively impacted (as cited in Saran & Papadakos, 2018)

Another study included a survey of 2427 medical residents self admitted to violating HIPPA by sharing patients PHI including photos via text on their PEDs, of this group only 5% utilized their facilities encrypted apps available to all respondents with inconvenience listed as the most frequent excuse for non-compliance (McKnight & Franko, 2016)

In a prospective study 2014 examining 50 trauma cases the average number of interruptions and distractions was 60.8 per case, from multiple sources including personal electronic devices
(Leynes, Flynn & Mok, 2018)

Human factors including personal electronic device sources contribute to medical errors primarily by impacting situational awareness and response time to critical changes in patient status (Stephens, 2017)

Accreditation groups and Judicial responses to inappropriate PED use



The World Health Organization (WHO) in 2017, wrote that the” increased use of technology is associated with negative health consequences.” In a growing number of countries and jurisdictions, said the WHO, “the problem has reached the magnitude of a significant public health concern.” (cited in Bartholomew, 2018)



Consequences of discovered PED use resulting in compromised patient safety increase the likelihood of large monetary settlements & punitive damages if confirmed (Snoots , 2016)



Cell phone addiction or Nomophobia, which is the irrational fear of being without your cell phone, is a relatively new phenomenon and is currently being proposed to be added to the Diagnostic Statistic Manual of Mental Disorders 5, further research in the meantime is warranted (Schulte, Roberts, Birch & Lisco, 2016)

Accreditation groups and Judicial responses to inappropriate PED use continued

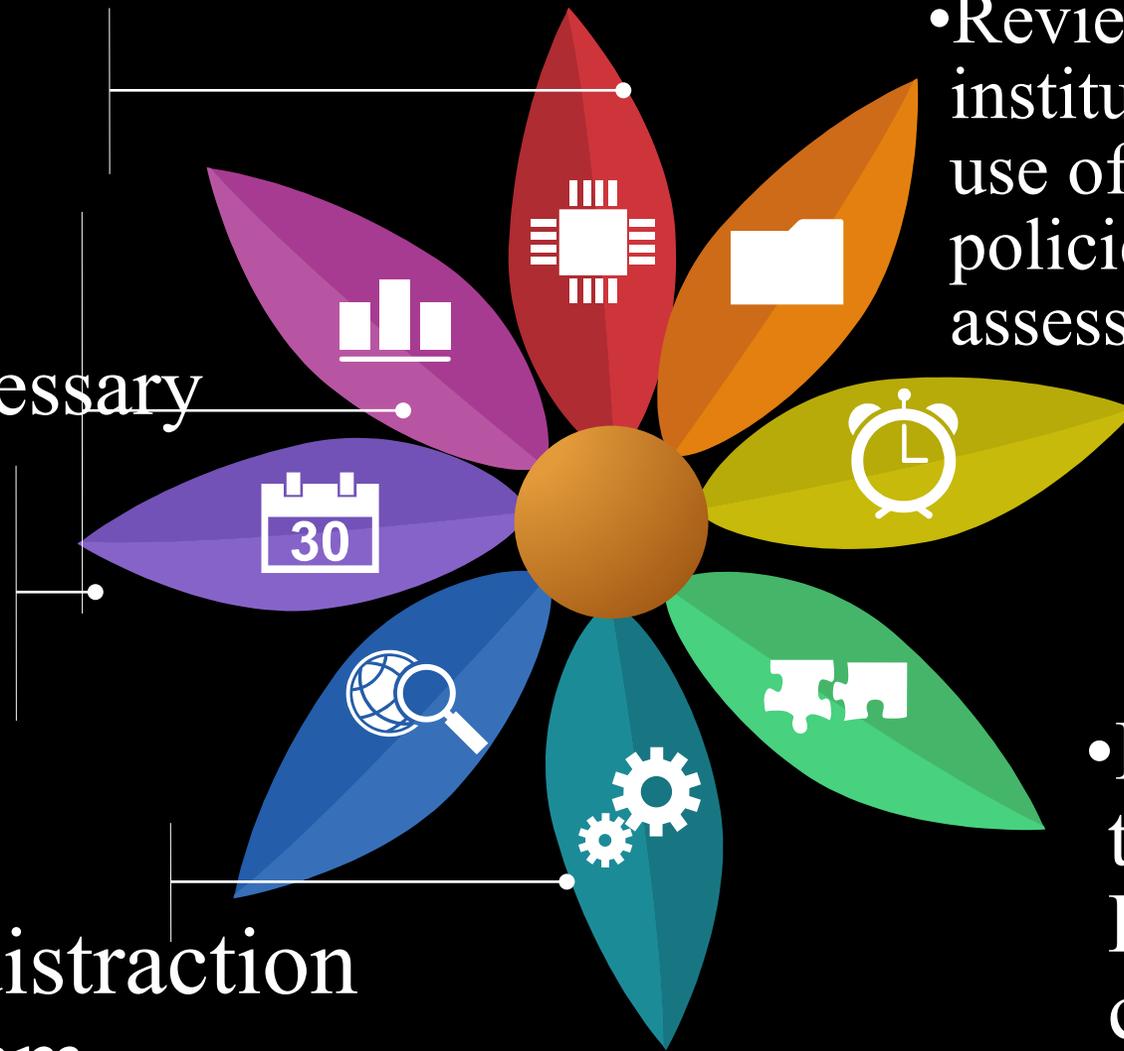
THE JOINT COMMISSION AND THE INSTITUTE OF MEDICINE STUDIED THE IMPACT OF DISTRACTIONS ON SITUATIONAL AWARENESS IN AN ENVIRONMENT OF HIGH RISK AND COMPLEXITY AND FOUND THAT LINKS TO ADVERSE PATIENT OUTCOMES AND INCREASED ERRORS WAS NOTED (STEPHENS, 2017)

THE EMERGENCY CARE INSTITUTE 2011 DETERMINED THAT PERSONAL ELECTRONIC DEVICES ARE AMONGST THE TOP 10 HEALTH TECHNOLOGY HAZARDS (SNOOTS , 2016)

STUDIES HAVE SHOWN THAT INTERRUPTIONS DURING CRITICAL TASKS (SUCH AS COUNTING IN THE OR) HAVE RESULTED IN A BREAKDOWN IN COMMUNICATION OF APPROXIMATELY 50% (SARAN & PAPADAKOS, 2018)

IN 2016 THE AMERICAN COLLEGE OF SURGEONS CREATED A POLICY STATEMENT THAT INCLUDED 10 GUIDELINES TO ADDRESS PERSONAL ELECTRONIC DEVICES IN THE OR (SARAN & PAPADAKOS, 2018)

- Create a
- critical task “no distraction zone” when necessary



- Review the policies of your institution for guidelines on the use of PED and if there are no policies conduct a needs assessment to address

- Speak up if a distraction is impairing team performance

- Encourage your team to limit inappropriate PED use in patient care areas

References

- Bartholomew, K. (2018). Not so smart: Cell phone use hurts our patients and profession: The clinical setting is no place for divided attention. *AJN American Journal of Nursing*, 118(6), 11. doi:10.1097/01.NAJ.0000534826.34492.e9
- Clark, G. J. (2013). Strategies for preventing distractions and interruptions in the OR. *AORN Journal*, 97(6), 702-707. doi:10.1016/j.aorn.2013.01.018
- Leynes, P.A., Flynn, J., & Mok, B.A. (2018). Event-related potential measures of smartphone distraction. *Cyber Psychology, Behavior & Social Networking*, 21(4), 248-253. doi:10.1089/cyber.2017.0630
- McKnight, R., & Franko, O. (2016). HIPAA compliance with mobile devices among ACGME programs. *Journal of Medical Systems*, 40(5), 1-8. doi:10.1007/s10916-016-0489-2
- Saran, J. S., & Papadakos, P.J. (2018). Electronic distraction in the operating room: A major safety issue. *ORNAC Journal*, 36(2), 12-27. Retrieved from <http://odin.curry.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=131612774&site=ehost-live>
- Schulte, T. E., Roberts, E. K., Birch, K., & Lisco, S. J. (2016). Assessing electronic interruptions experienced by an anesthesiology clinical director. *Journal of Clinical Anesthesia*, 34, 658-660. doi:10.1016/j.jclinane.2016.07.004
- Snoots, L. R. (2016). Use of personal electronic devices by nurse anesthetists and the effects on patient safety. *AANA Journal*, 84(2), 114-119. Retrieved from <http://odin.curry.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=114334340&site=ehost-live>
- Soto, R. G., Neves, S. E., Papadakos, P.J., & Shapiro, F. E. (2017). Personal electronic device use in the operating room: A survey of usage patterns, risks and benefits. *European Journal of Anesthesiology (Lippincott Williams & Wilkins)*, 34(4), 246-247. doi:10.1097/EJA.0000000000000555
- Stephens, T. M. (2017). Situational awareness and the nursing code of ethics. *American Nurse Today*, 12(11), 56-58. Retrieved from <http://odin.curry.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=126191252&site=ehost-live>