

LOYOLA PERINATAL NETWORK NURSING e-JOURNAL CLUB
Neonatal Evidence-Based (EBP) Practice Research Article Critique Summary
January 2026 – March 2026

Citation: Olsen, M., Lohning, A., Campos, M., Jones, P., McKirdy, S., Alghafri, R., & Tajouri, L. (2021). **Mobile phones of paediatric hospital staff are never cleaned and commonly used in toilets with implications for healthcare nosocomial diseases.** *Scientific Reports*, 11(1). <https://doi.org/10.1038/s41598-021-92360-3>

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What was the clinical problem discussed in the Evidence Based Practice (EBP) article/study?

Mobile/cellular (cell) phones and smartphones are used extensively all over the world by approximately 5.5 billion people. Healthcare has seen a constant rise in cell phone use, including in patient care areas. Many physicians, nurses, and other interdisciplinary team members rely on their cell phones as work-aid devices to assist with patient care, through point-of-care app tools, and for inter-department communications. Many healthcare workers also use their cell phones throughout their workday for personal matters, often during work hours, while providing patient care. Not cleaning cell phones on a regular basis may place patients at risk for preventable nosocomial infections.

What was the purpose of this EBP article/study?

The purpose of this study was to review demographic and quantitative data, with a focus on whether individuals used their cell phones in the bathroom, if they believed cell phones harbor micro-organisms, and what (if any) actions were done to keep their cell phones clean.

What were the main findings?

165 healthcare workers participated in a survey: 45% worked in General Pediatrics, 23% worked in PICU, 15% worked in NICU, and 15% from Pediatric Emergency Department. Results showed that some nurses and physicians reported feeling mildly unwell while at work the day of the study. Over half (52%) of participants reported using their devices in the bathroom for various reasons, further emphasizing the unhygienic environments that mobile devices/smartphones are constantly used in. Almost 100% of participants acknowledged and believed that their cell phones had the potential to harbor pathogenic microorganisms, yet only 42.6% cleaned their phones. Of those who did “clean” their cell phones, 27.5% only used a lint felt cloth, which will not decontaminate a surface.

What interventions were implemented or examined in this EBP article/study?

The article points to literature citing that 70% isopropyl alcohol wipes are recommended to disinfect contaminated surfaces, however, this is rarely followed as standard practice. While clear guidelines and adherence to good hand washing may be expected in healthcare settings, mobile phones that are contaminated with microbes and used as tools at work may re-infect health care workers’ hands and lead to microbial spread and contamination in patient care areas. Research reporting on mobile phone microbial contamination has consistently reported a lack of proper protocols for phone disinfection in medical settings and public areas.

***An excellent article that is specific to the NICU that you may also find helpful was published in 2016 (but still has very valid concerns and suggestion) by *Advances in Neonatal Care*. Due to “Open Access” and Copyright laws, I cannot share the article as a pdf, but if you are a member of NANN, or your medical library has the NANN journal, you can access it:**

Kirkby, S., & Biggs, C. (2016). **Cell Phones in the Neonatal Intensive Care Unit.** *Advances in Neonatal Care*, 16(6), 404–409. <https://doi.org/10.1097/anc.0000000000000328>