



Use of Gamification to Identify Gaps and Educational Opportunities in Infection Prevention Practices in a Large Academic Medical Center

Authors: Angela Akinsanya, MSN, RN, CIC, LSSGB, Rashida Khalid, MSHA, RN, CIC, Catina James, MPH, Mary Duncan, MSN, RN, CIC, Jeremy Walker, MD

Background

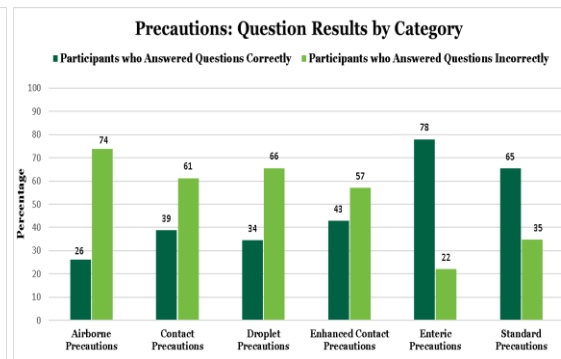
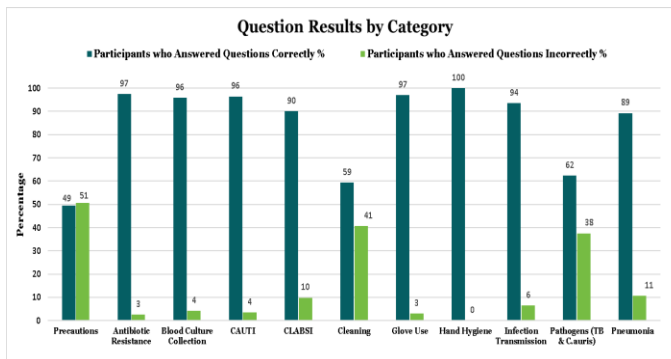
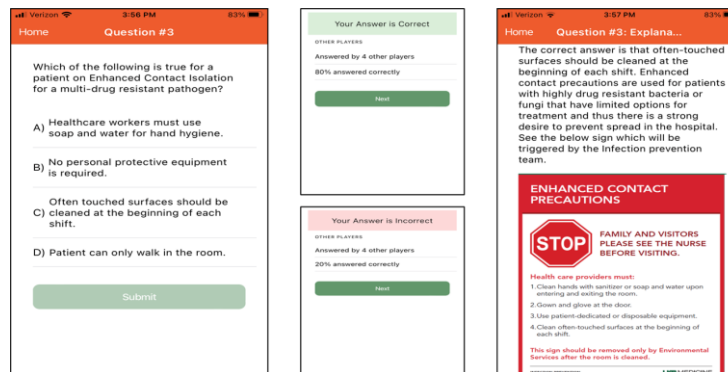
- Gaming spotlights and encourages competitiveness in a fun way while increasing the knowledge of the health care workers (HCW).
- Due to COVID-19, many infection prevention practices were modified, creating knowledge deficit in HCW related to infection prevention practices.
- We designed a formative question bank, provided as an optional trivia style-game to identify gaps in knowledge and provide immediate feedback.

Methods

- The game was designed as a mobile app and a web-based version to target the hospital nurses with 3 questions being released daily for 8 days and participants were given an extra 2 days to complete the game.
- Submission of each question provided immediate feedback with explanation of the rationale and excerpts from additional resources and where to locate them.
- There were total of 24 questions that addressed the 11 infection prevention categories (isolation precautions, antibiotic resistance, blood culture collection, environmental cleaning, catheter-associated urinary tract infection (CAUTI), catheter-associated bloodstream infection (CLABSI), glove use, infection transmission, pathogens, hand hygiene, and pneumonia). Participant responses were analyzed using frequency of correct responses to identify the knowledge gaps.

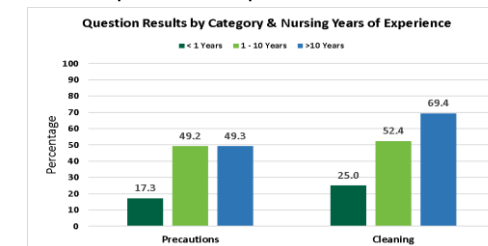
Results

- A total of 134 hospital nurses participated. The percentage of hospital nurses who correctly answered questions in each category were as follows: isolation precautions (49%), antibiotic resistance (97%), blood culture collection (96%), environmental cleaning (59%), CAUTI (96%), CLABSI (90%), glove use (97%), infection transmission (94%), pathogens (62%), hand hygiene (100%), and pneumonia (89%).
- The results revealed that the categories with the highest healthcare knowledge gaps were isolation precautions followed by environmental cleaning.



Conclusion

- This study found that healthcare worker's knowledge gaps exist in the areas of isolation precautions and environmental cleaning.
- We anticipate that providing immediate feedback with educational resources and an explanation of rationale to the participants will contribute to an increase in the knowledge of infection prevention practices.



References

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Disclosures

Mary Duncan – Speaker for 3M