Background

• AH Stanly experienced an increase in the number of infections in 2021 (10). We met with nursing leadership to review the infections, trends, and our goals for 2022.
• The idea of a “back to basics” approach was born from these discussions. None of the information was new, it just needed to be reinforced.
• The teammates had received education about C. diff, MRSA, CAUTI, and CLABSI numerous times, however, we were still having infections. We were struggling with how to provide this education in a way that the teammates would retain the knowledge and practice what we preached.
• Our CNE challenged us to provide the education and validation that our teammates needed to provide excellent patient care and decrease infections but do it in a fun and creative way. We were challenged to “think outside of the box”.

Purpose

• Nursing, as well as healthcare is constantly changing. For this reason, we need to change the way we deliver education to them.
• An escape room combined with hands on fundamental practice would allow our teammates to have fun, work together, and be reminded of infection prevention basics that are needed to improve patient outcomes.
• By increasing staff knowledge of basic infection prevention efforts, we hoped to decrease the number of infections and improve patient outcomes. This would be accomplished by providing the teammates a fun, interactive learning environment to participate in.
• A memorable learning experience would lead to improved retention of knowledge.

Methods

Sample and Setting

• All nurses, including our travel nurses, and healthcare techs attended. The sample size was over 300 nursing teammates that participated.

Interventions

• Two escape rooms were developed. The first one was about MRSA with a focus on C. diff. The next month, the escape room was re-designed to focus on C. diff with a hand-on focus of CLABSI.
• An hour was allotted for each session with 30 minutes in the escape room and 30 minutes of hands-on practice.
• Pre-registration was required so that we could ensure the ideal group size of 4-6 participants.
• Once participants arrived, we divided the teammates into 2 groups, making sure each group had a variety of departments and roles represented.
• The groups were given the instructions, given their first clue and the timer began.
• As the groups entered the escape room, they had to communicate with each other, and work to decipher clues using visual aids and puzzles in order to “escape an infection” all the while learning about MRSA and C. diff.
• Pre-course questions were answered individually, prior to each escape room, to determine the baseline knowledge each teammate had related to infection prevention.
• Once the group escaped, a debriefing was performed to recap the experience, reiterate the important topics addressed during the escape room, discuss any questions, talk about teamwork and communication, and see how their team’s score fared with the low score of the day. Team photos were taken at the end of the debriefing.

Methods of Evaluation

• Data were collected by having all attendees complete a pre- and post-course evaluation, and a 4-month follow-up evaluation. The evaluation consisted of 5 questions and the same questions were used at each evaluation time. The control group were teammates that did not attend an education session and they had an alternative learning plan.
• QR codes were placed at entrance and exits to ensure completion of evaluations.

Analysis

• An increase was noted in the knowledge of infection prevention skills based on the post-evaluation and was still retained at the 4-month evaluation mark.
• Significant decrease in the raw number of infections from 2021 to 2022.

Results

• Overall, the teammates felt they experienced great teamwork and collaboration as they worked together to solve clues, plus lots of laughing and learning!
• They were able to interact with other teammates that they didn’t know or did not usually work with.
• Most importantly, teammates were able to gain greater knowledge as they were evaluated pre- and post-tests.
• The follow-up evaluation showed that 7 out of 10 questions were retained after 4 months.
• Teammates who did not attend an escape room had to do alternative learning and were assessed on their learning using the same questions. They scored lower or equal on eight out of ten questions.
• Below are two of the questions that were statistically significant.

Conclusions

• Research shows that escape rooms can be used as a teaching method and the end results yield increased, retained knowledge.
• Following the escape room, excellent feedback was received from our teammates and the 4-month follow-up revealed increased knowledge and retention.
• A strength identified was teamwork. Teammates from a variety of disciplines and departments worked together to foster an environment to work as one team and improve communication and trust. All the teammates were equal, and one role was just as important as another, creating a space where all belonged.
• The debriefing was very important to highlight the important objectives, which we wanted to make sure each teammate acquired from this learning activity.
• A few of the limitations included finding an empty space that we could occupy for a month. A second limitation was scheduling. Each teammate had to sign up for an hour session outside of their work hours. A third limitation and lesson learned was having an individual available to “set” the escape room back up to prevent delays.

Can You Escape an Infection?

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Purpose

• “Can you escape an infection” all the while learning about MRSA with a hands-on focus of CAUTI.

Methods

Sample and Setting

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Interventions

• Two escape rooms were developed. The first one was about MRSA with a hands-on focus of CAUTI. The next month, the escape room was re-designed to focus on C. diff with a hand-on focus of CLABSI.
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• Pre-registration was required so that we could ensure the ideal group size of 4-6 participants.
• Once participants arrived, we divided the teammates into 2 groups, making sure each group had a variety of departments and roles represented.
• The groups were given the instructions, given their first clue and the timer began.
• As the groups entered the escape room, they had to communicate with each other, and work to decipher clues using visual aids and puzzles in order to “escape an infection” all the while learning about MRSA and C. diff.
• Pre-course questions were answered individually, prior to each escape room, to determine the baseline knowledge each teammate had related to infection prevention.

Results

• With the interactive escape room focused on infection prevention, the team had the opportunity to bond and learn together in an engaging and interactive environment, reinforcing and strengthening the learning around infection prevention best practices that are essential for improving patient outcomes.
• We believe that this model of learning contributed to the decrease in infections from ten in 2021 to six in 2022. An improvement of 40% in infections for a hospital of this size is quite significant.

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