

Teaching Project Summary

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Teaching project summary

Ascertaining an educational need was my first step in determining the topic. I chose to address hand hygiene. Low hand hygiene compliance is a common problem. Nurses should use hand hygiene protocol to promote safety for themselves and their patients (Benbow, 2014). Staff cite many barriers to hand hygiene protocol such as lack of time, emergent situations, lack of safety culture, lack of availability or access to products, forgetfulness, lack of role models, and skin irritation (Eramus et al., 2009). As patient advocates it is imperative that nurses and other health care professionals embrace and adhere to hand hygiene protocol to promote patient safety (Benbow, 2014).

Hand hygiene has been cited by the Centers for Disease Control (CDC) and World Health Organization (WHO) as one of the least expensive and most effective measures to prevent the spread of infection to patients or health care workers. (Hand Hygiene in Healthcare setting, Center for Disease Control website, 2014) The Joint Commission (TJC) has made hand hygiene a national patient safety goal. The TJC, CDC, and WHO offer many resources to assist in teaching and monitoring compliance of hand hygiene protocol. By following hand hygiene protocol the economic impact could be positively affected and decrease the drain on the healthcare system (Spruce, 2013).

Providing education to the staff will reinforce the importance of hand hygiene compliance to prevent the spread of infection, protect the patient and staff, and reduce to spread of multi-drug resistant microorganisms. It has been noted that to promote and encourage compliance continuing education is needed to reinforce the appropriate times, materials, and importance of hand hygiene (Kapil, Bhavsar, & Madan, 2015).

Target audience

The target group involved perioperative staff with various roles. Among the group there are 22 registered nurses, one male and twenty one females, varying in age from 28-59 years old, two female LPN's 52-63 years old, three male surgical technologists 32-38 years old, one 30 year old female certified scrub technologist, and one 57 year old female patient care assistant. Ethnicity is predominantly Caucasian but also includes one male and one female African American. Years of experience range from two to thirty years. There are three bachelors prepared nurses, four nurses are currently in bachelors programs and will obtain their bachelor's degree in the one to four months, and three are currently taking prerequisite classes before entering a bachelor's degree program. All staff members have a high school diploma. In assessment of this group, the majority is female and lies in the middle-aged adulthood range of 41-64 years of age (Bastable & Myers, 2014). Most of the learners in the group have lived in the same area and worked together for years in the same hospital setting. Social norms and cultural barriers are created and can make teaching and adherence to protocols difficult (Eramus et al., 2009).

The range of experience, knowledge and educational levels of the learners influenced the development of the teaching plan. A teacher does not want to leave out important information for newer less experienced staff or bore or insult the learners that have been given the information many times. "If educators make the mistake of teaching subject material that has already been learned they risk at the very least creating boredom and disinterest in the learner or at the extreme insulting the learner, which could produce resistance to further learning" (Bastable & Kitchie, 2014, p. 133). Educational levels will have to be taken into account when teaching the group. The information cannot be overly technical or simplistic. It has been reported that

almost half of the population reads and comprehends information below the eighth grade level (Bastable & Alt, 2014).

I chose to present hand hygiene education to this group of learners due to the importance of good hand hygiene and the observed need for continued education. Continued exposure and reinforcement of information can aid learners by the repetition of information and the degree of educational assimilation acquired during each teaching session (Fitzgerald & Keyes, 2014, p. 505).

Standards of practice

Standards of care for perioperative nurses are from Association of Operating Room Nurses. (AORN) Guidelines for Perioperative Practice. The 2015 edition's author is AORN and is published by AORN, Inc. in Denver Colorado. The standards that I chose to base my teaching project on were the recommended practice for hand hygiene in the perioperative setting. The recommendation outlines when hand hygiene should occur and different types of hand hygiene and antisepsis (Spruce, 2013). I also chose the recommended practice for prevention of transmissible infections in the perioperative setting. This recommendation discusses the types of precautions that should be taken to prevent the transmission of infection to other patients and staff (Patrick & Hicks, 2013). These standards were used as a guide for the information contained in the teaching plan. The recommendations and standards support teaching and learning, by providing succinct information to be utilized in everyday practice.

Needs assessment

Assessment of the problem and staff compliance was obtained by direct observation and informal conversations during lunch and breaks (Bastable & Kitchie, 2014). Staff was observed performing various duties during the day and their degree of hand hygiene compliance. It was

noted that the majority of the staff did not follow hand hygiene protocol. Conversations with staff members brought forth many perceived and actual barriers to compliance.

Most staff relayed they liked both auditory and visual information when being presented with a topic for instruction. Early morning was the time the majority of the staff preferred for educational information.

Development of teaching plan

After determining the gaps in knowledge and technique I created a teaching plan (Appendix A) based on the recommendations from AORN, CDC, and the WHO regarding hand hygiene. The focus of the plan was reinforcing the importance of hand hygiene to prevent the transmission of microorganisms. I felt there would be better compliance with hand hygiene when staff was given the information regarding the transmission of microorganisms and the benefits of good hand hygiene for themselves and patients.

I realized trying to teach in a busy staff lounge was not going to work. Therefore I reserved a meeting room for the audiovisual and discussion portion of the educational offering. Noise and interruptions must be minimized to provide a conducive environment for learning (Kitchey, 2014).

An assessment of the group revealed I had learners with various levels of experience, educational levels, and ages. The group all worked in the perioperative area and preferred short direct instruction. I determined the need for audiovisual material, handouts, and discussion to aid in my teaching plan. “Assessment of the learner’s needs, readiness, and styles of learning is the first and most important step in instructional design...” (Kitchey, 2014, p. 115). I presented information using a power point presentation (Appendix B) and lecture. A post-test (Appendix C) would be given to assess if the learners retained and understood the information. I also

planned to demonstrate the correct way to clean your hands with soap and water and an alcohol based product. Demonstration of the correct technique would aid in decreasing the learner's anxiety. I planned on the learner's demonstrating the correct techniques for both forms of hand hygiene. This activity took longer than the time allotted due to the number of staff involved.

At the conclusion of the educational session, I planned to discuss the actual and perceived barriers to hand hygiene compliance with the group. I wanted to encourage their participation in the process and active engagement in providing possible solutions.

Instructional strategies

It was important to provide an environment where the temperature and lighting would provide a comfortable atmosphere and there would be minimal or no distractions. A teaching session would be scheduled in the morning and early afternoon to accommodate the learners desired times of instruction (Bastable & Kitchie, 2014).

Use of a teacher centered approach with direct instruction would be one method of instruction. This teaching method would use cognitive learning theory. Cognitive learning theory aids the learner in perceiving and interpreting information they already know and reorganize it to come to a better understanding (Yilmaz, 2011). Audiovisual aids and live demonstration would also be used to reinforce the information. The use of audiovisual and live demonstration with simplistic information could ensure staff at all levels of education and literacy would understand the information. Posters could be placed in strategic places to provide visual cues for the staff.

The use and integration of multi-modal methods to teach the information would help learners assimilate the information. By employing different teaching methods and educational materials cultural differences, age, and experience levels would all benefit. Giving verbal or

written information would aid in cognitive learning. By providing demonstration and return demonstration it would reinforce learning the technique using psychomotor techniques.

Encouraging and allowing the group to have an open discussion at the end of the session would aid in affective learning (Fitzgerald & Keyes, 2014).

Evaluation

Evaluation of the first learning objectives related to the learners understanding the reasons and appropriate times to perform hand hygiene resulted in twenty nine out of twenty nine learners answering all the questions on the post-test correctly. The goal of eight out of ten was set prior to the educational intervention.

The next objective and goal was nine out of ten learners will demonstrate the correct technique for hand hygiene using soap and water and alcohol based products. Evaluation of this goal was met by direct observation of the learner's performance of hand hygiene with soap and water and alcohol based products. The outcome of this goal is skewed due to the fact that I coached and provided feedback to some of the learner's until they performed it correctly.

The last objective involved the staff discussing actual and potential barriers to compliance with hand hygiene protocol. The goal set was eight out of ten staff members would comply with hand hygiene protocol in their daily practice. Measurement of this goal involved direct observation. Immediately after the educational intervention, the goal of eight out of ten staff members performing hand hygiene consistently was on track. As the next couple of days passed, the compliance rate decreased to seven out of ten staff members consistently performing hand hygiene. Although the compliance rate changed very little, I still feel like the educational information given to the staff helped by teaching everyone the correct way to cleanse their hands.

It was noted in the return demonstrations that some staff was missing key areas while performing hand hygiene.

Summary

Educating staff can be very difficult especially when you have such a varied group. I learned a lot of thought and preparation goes into staff education. No one method will work with everyone. It is important to observe and evaluate the learners and adjust your method of teaching to meet their individual needs. Although I know a lot about the subject of hand hygiene, preparing for the actual teaching intervention was challenging and time consuming. I also learned that you don't have to "reinvent the wheel." You can use the free educational offerings such as power points and handouts to supplement your teaching. The CDC and WHO offer many educational tools to help with educating the public and healthcare workers regarding hand hygiene. Estimating the time needed to provide education is difficult when the learners are doing return demonstrations. Some of the staff needed more time and assistance. Also, having a discussion at the end of the presentation was interesting but the goal of coming up with solutions to improve hand hygiene proved difficult and some staff talked while others truly wanted to come up with viable solutions. I feel this project has provided information to help me decide what direction I want to pursue in my career.

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Appendices

Appendix A.....Teaching Plan
Appendix B.....Power point
Appendix C.....Post test

Appendix A

Teaching Plan

Purpose: To provide staff with information necessary to perform hand hygiene correctly.

Goal: The staff will be able to verbalize when to perform hand hygiene and will demonstrate how to correctly perform hand hygiene using soap and water and waterless products.

| Objectives | Content Outline * | Method of Presentation | Time Allotted (In minutes) | Resources | Method of Evaluation |
|---|---|--|-------------------------------------|--|---|
| <p>Following a 45 minute teaching session the learners will be able to:</p> <ul style="list-style-type: none"> • Identify the reasons for hand hygiene and the appropriate times for hand hygiene (Knowledge/ Cognitive) • Demonstrate proper technique for hand washing with soap and water and waterless products (Skill/ psychomotor) • Express any perceived or actual barriers | <ul style="list-style-type: none"> • Infection control • Staff and patient safety • Correct technique for hand washing with soap and water • Correct technique to use waterless product | <p>Verbal Power point</p> <p>Demonstration</p> | <p>10 minutes</p> <p>25 minutes</p> | <p>Laptop, Project or</p> <p>Sink, soap, alcohol based hand cleanser</p> | <p>Post test</p> <p>Observation of learners technique</p> |

| | | | | | |
|--|---|-------------------|-------------------|--------------------------------|------------------------------|
| to compliance with hand hygiene protocol (Attitude/Affective) | <ul style="list-style-type: none">• Summarize group members concerns and possible barriers | Discussion | 10 minutes | WHO hand hygiene poster | Questions and answers |
|--|---|-------------------|-------------------|--------------------------------|------------------------------|

Appendix B

Hand Hygiene Power Point



Appendix C

Hand Hygiene Post Test

1. When should you perform hand hygiene?
 - a. Before contact with patient
 - b. After contact with patient or items in patients room
 - c. After removing gloves
 - d. When hands are visibly soiled

Answer: a, b, c, d

2. Alcohol based hand hygiene products are appropriate and effective unless hands are visibly soiled.
 - a. True
 - b. False

Answer: a

3. Performing correct hand hygiene will protect the _____ and the _____.
 - a. Linen, bed
 - b. Institution, staff
 - c. Patient, staff

Answer: c

4. Hand hygiene is one of the least expensive and most effective interventions to prevent transmission of infection.
 - a. True
 - b. False

Answer: a

5. It is not necessary to perform hand hygiene if you had gloves on while caring for the patient.
 - a. True
 - b. False

Answer: b

ODU Honor code

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Name: __Vickie Rogers_____

Signature: _Vickie Rogers_____

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