

# Team Driven Education to Enhance Surgical Patient Positioning and Skin Preparation

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## ABSTRACT

### BACKGROUND

The Surgical Services team identified numerous opportunities for increased awareness regarding patient positioning and skin preparation within the operating room. These opportunities include but are not limited to risks for patient injury, optimization of surgical site exposure, and minimization of infections risks. In addition, the team recognized there was a high variation in the knowledge among staff in the surgical suite due to the differences in education and training relative to work role.

The multidisciplinary surgical team is comprised of:

- Registered Nurses
- Certified Surgical Technologists
- Certified Surgical Assistants
- Patient Care Assistants
- Nurse Practitioners
- Physician Assistants
- Medical Doctors
- Certified Registered Nurse Anesthetists

Among these team members there are varying levels of experience from new graduates, new to the organization, and specific education relative to the individual's surgical specialty. These factors all create a level of variation in practice knowledge.

### OBJECTIVE

The goal of this education was to create an interactive and hands-on approach to develop a consistent forum and message for new staff coming into the surgical team regarding patient positioning and skin preparation. In addition, the message needed to align with the education our colleagues are receiving among internal programs to further enhance the team approach.

### METHODS

An assessment of the level of knowledge and comfort of variable team members within different specialty operating rooms was completed. Once it was determined there was an opportunity to enhance the team knowledge base, a review of existing information and tools was completed to determine where education could be enhanced to create consistent content across the organization. The next step was collaboration between Nursing Education and Mayo School of Health Sciences staff inclusive of the Surgical First Assistant and Nurse Anesthesia programs. In addition to compiling information from within these programs, the content creation was all based on the following:

- Staff learning needs assessment
- Current organizational policies and guidelines
- Recommendations from the Association of Perioperative Registered Nurses (AORN)

To maximize the teamwork in the operating room, a conscious decision was made to deliver the content via using both a classroom environment and also in the surgical environment using a Nurse Educator in conjunction with an active Surgical Assistant as the facilitators in an operating room. The learner groups were also strategically brought together as a multidisciplinary group and during the first months of joining the surgical team.

### RESULTS

To assess the success and satisfaction of the education offered, the learners were surveyed regarding an overall experience as well as their confidence level in understanding, ability to apply the information to everyday practice, and the ability to locate appropriate resources relative to patient positioning and skin preparation. The results were overwhelmingly favorable in that staff from all disciplines felt that the content is applicable and helped to create a level of comfort not only in their abilities to position a surgical patient or prepare the skin for surgery, but also the ability to approach other team members to participate in these activities. The collaboration in the classroom opened an avenue of communication and collaboration in the operating room as well.

### CONCLUSIONS

Creating consistent content and delivery methods allowed different types of learners to excel using multiple education approaches of didactic and hands-on delivery. Bringing together a multidisciplinary team in a low stress environment and using equipment encountered in everyday work also contributed to creating a cohesive team environment that carried over within the operating room. Additionally, this has opened the door to real time identification of individual and team challenges and troubleshooting to solve challenges together.

## METHODS

Within the first four to six weeks of hire, the allied health staff member was enrolled to the Patient Positioning and Skin Preparation course. The learner had a two hour in-person, interactive classroom-based course introducing them to overarching principles of surgical positioning and skin preparation.

The attendees then moved into the operating room where they actively participated in common positioning:

- Hands-on practice with the operating room and table along with attachments and motions
- Practice of proper use of various positioning aids including but not limited to yellow fin leg holders, "candy cane" leg holders, morph board, chest rolls, bean bags, and gel pads
- Experience as "the patient" to develop understanding of risks and benefits of positioning

## RESULTS

FIGURE 1.

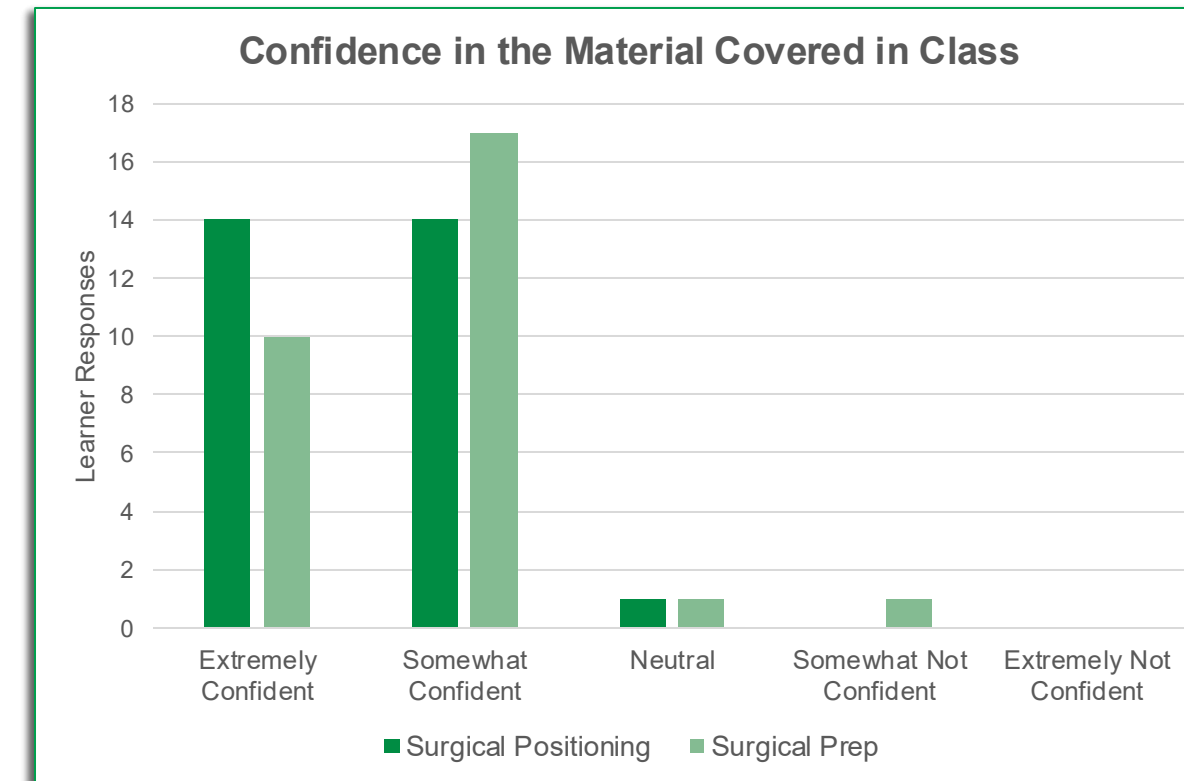


FIGURE 2.

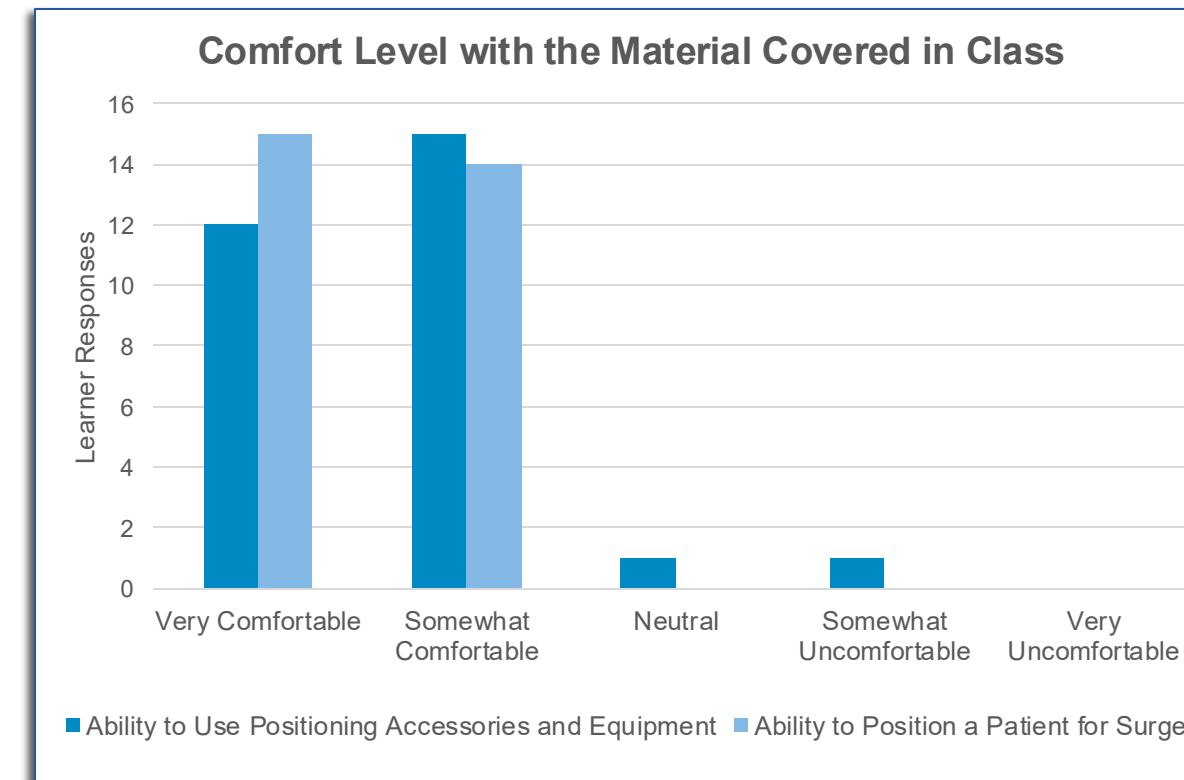
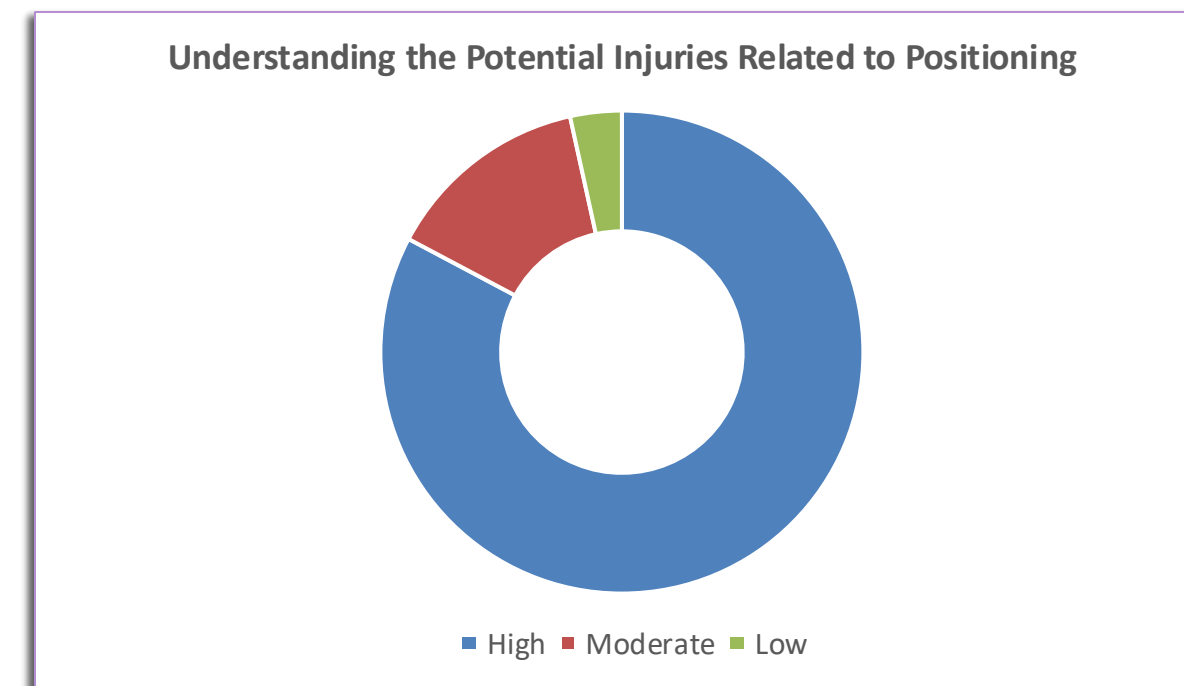


FIGURE 3.



Based on the survey results from a total of 29 participants the following area were measured on a Likert scale. All participants completed this survey shortly after they completed the class. The survey measured the staff's confidence, comfort and understanding of material covered in class.

### Confidence

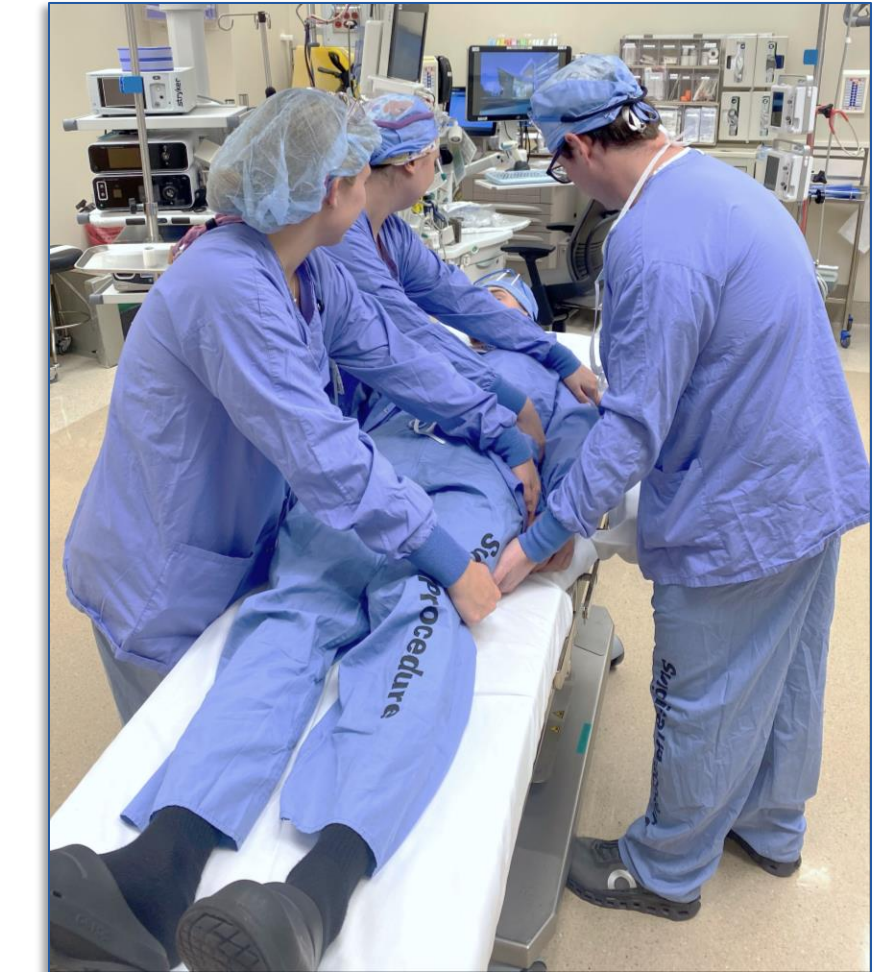
- The course material was split into two main topics, positioning and prepping for surgery shown in Figure 1. 48% of the participants felt extremely confident in the positioning portion of the material. 48% of the participants felt somewhat confident and only one individual reported neutrality over the material.
- Similarly for prepping 34% felt extremely confident in the material and 58% felt somewhat confident. One individual reported feeling neutral and one felt they were somewhat not confident in the prepping material.

### Comfort

- When asked about comfort level with the material, topics assessed were the ability to use positioning accessories and equipment as well as properly position a patient for surgery. As shown in Figure 2, 41% of participants reported feeling very comfortable with the accessories and equipment with 51% reported feeling somewhat comfortable. One individual reported feeling neutral and one felt they were somewhat uncomfortable in the using the accessories and equipment.
- Overall, all participants felt somewhat or very comfortable being able to properly position a patient for surgery.

### Understanding

- Participants were asked to rate their overall understanding of potential risks of injury related to surgical positioning. In Figure 3, 24 of the 29 (82%) individuals reported high levels of understanding of how a patient could be injured due to improper positioning. 4 of the 29 (13%) reported a moderate understanding, with only one individual reporting a low level of understanding.



## CONCLUSIONS

- Survey results were evident that this course provided positive results to the participants confidence, comfort and understanding of the course material.
- Engaging varying disciplines early within the learning environment fosters a greater sense of teamwork in the operating room.
- Learners from each discipline found the content and the education approach to enhance their comfort and knowledge surrounding patient positioning and skin preparation.
- Early engagement with a broader team provided the learners additional resources once started in the operating room.
- Incidentally, established staff members recognized the value of the course and requested information regarding patient positioning
- Asking the learners to participate as a "patient" during the class was well-received by participants in being better able to identify high risk motions and positions and improve their understanding of the patient experience

## REFERENCES

- Benze, C., Spruce, L., & Groah, L. (2021). *Perioperative nursing: Scope and standards of practice* (10th ed.). Association of Perioperative Registered Nurses (AORN).
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