



10-16-2023


## Implementation of a Single-Patient-Use Airway Taping Product in the Operating Room

Savannah Sierra Nicole Craig  
*University of Tennessee, Knoxville, [scraig16@vols.utk.edu](mailto:scraig16@vols.utk.edu)*

Kaitlin D. Burrell  
*University of Tennessee, Knoxville, [kburrel1@vols.utk.edu](mailto:kburrel1@vols.utk.edu)*

Jennifer Patrick  
*University of Tennessee Knoxville, [jpatri17@utk.edu](mailto:jpatri17@utk.edu)*

Follow this and additional works at: <https://trace.tennessee.edu/dnp>

 Part of the [Anesthesia and Analgesia Commons](#), [Anesthesiology Commons](#), [Equipment and Supplies Commons](#), [Perioperative, Operating Room and Surgical Nursing Commons](#), and the [Quality Improvement Commons](#)

---

### Recommended Citation

Craig, Savannah Sierra Nicole; Burrell, Kaitlin D.; and Patrick, Jennifer, "Implementation of a Single-Patient-Use Airway Taping Product in the Operating Room" (2023). *Graduate Publications and Other Selected Works - Doctor of Nursing Practice (DNP)*.  
<https://trace.tennessee.edu/dnp/79>

This Poster is brought to you for free and open access by the Nursing at TRACE: Tennessee Research and Creative Exchange. It has been accepted for inclusion in Graduate Publications and Other Selected Works - Doctor of Nursing Practice (DNP) by an authorized administrator of TRACE: Tennessee Research and Creative Exchange. For more information, please contact [trace@utk.edu](mailto:trace@utk.edu).

# Implementation of a Single-Patient-Use Airway Taping Product in the Operating Room

Kaitlin Burrell BSN, RN; Savannah Craig BSN, RN; Jennifer Patrick DNP, CRNA

## BACKGROUND

- Anesthesia providers use adhesive tape to secure advanced airway devices.
- Rolls of adhesive tape serve as reservoirs for bacteria and pathogens including MRSA, VRE, and Staphylococcus species.<sup>5,8</sup>
- Rolls of tape do not have instructions on how they are to be reused, cannot be disinfected, and should not be repurposed.<sup>3,4</sup>
- The re-use of rolls of tape poses a risk to patient safety. Evidence reports tape's risk of cross-contamination, but there is a scarcity of formal guidance for its use and how it is to be stored.<sup>2,5</sup>

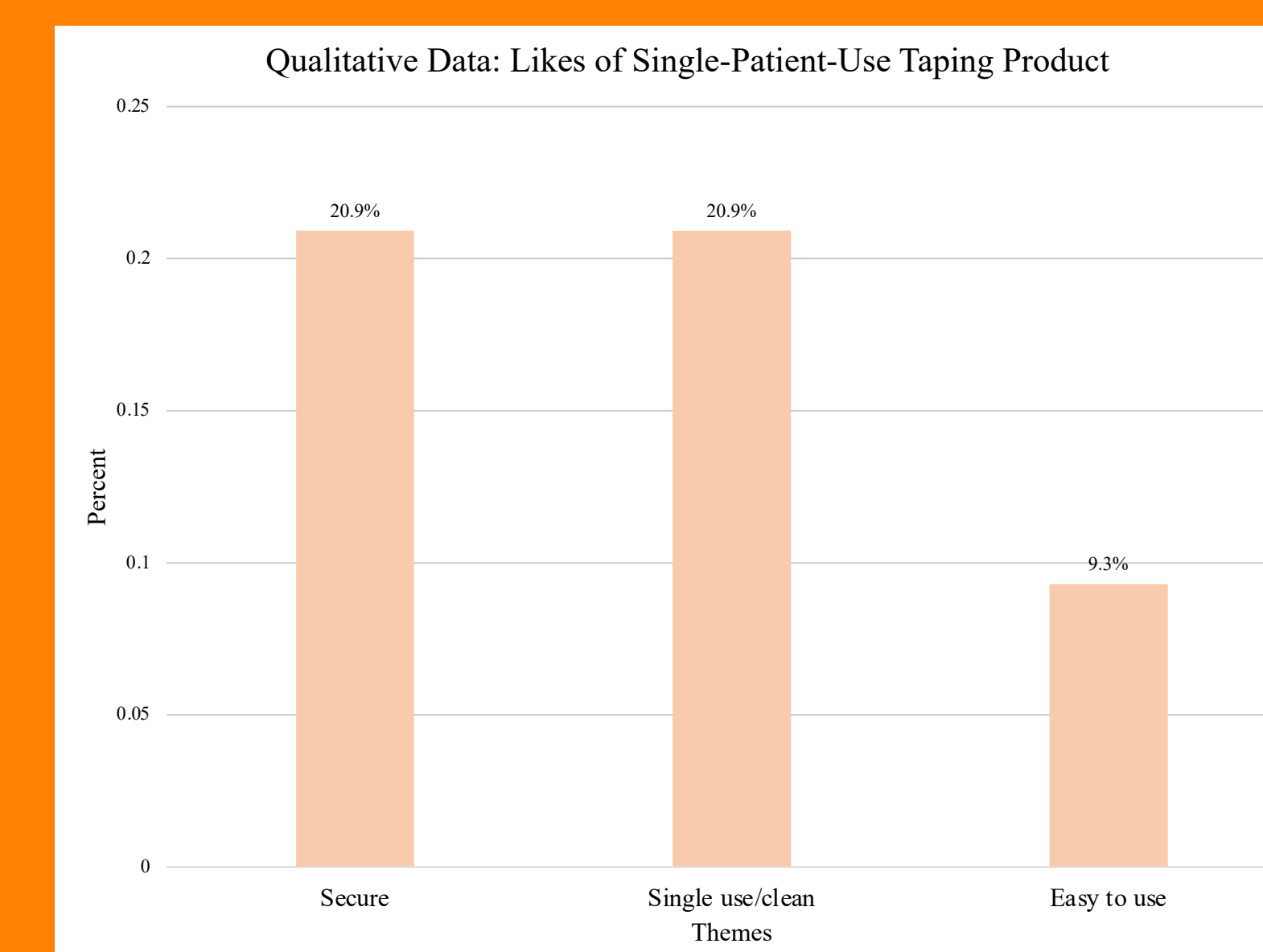
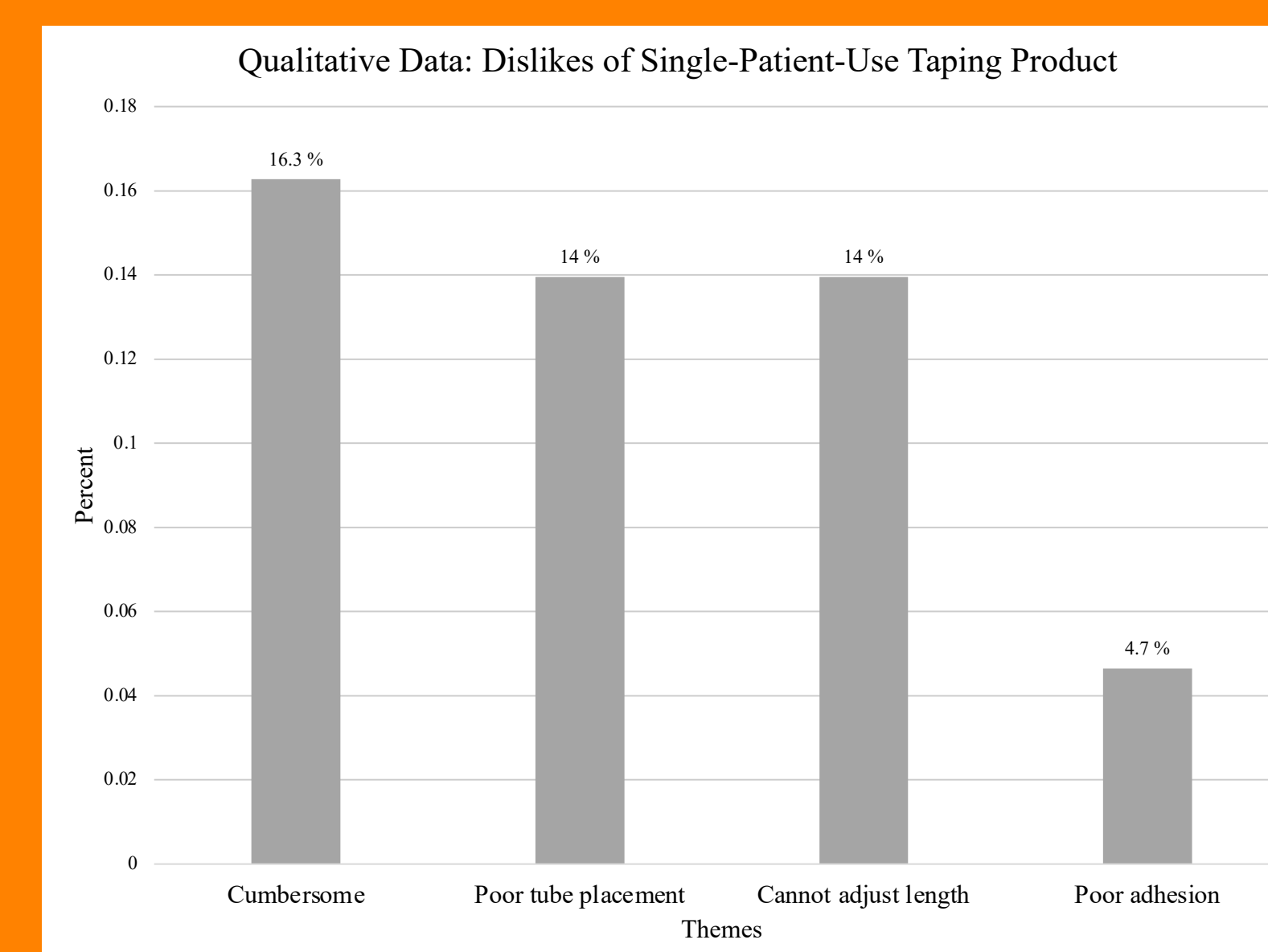
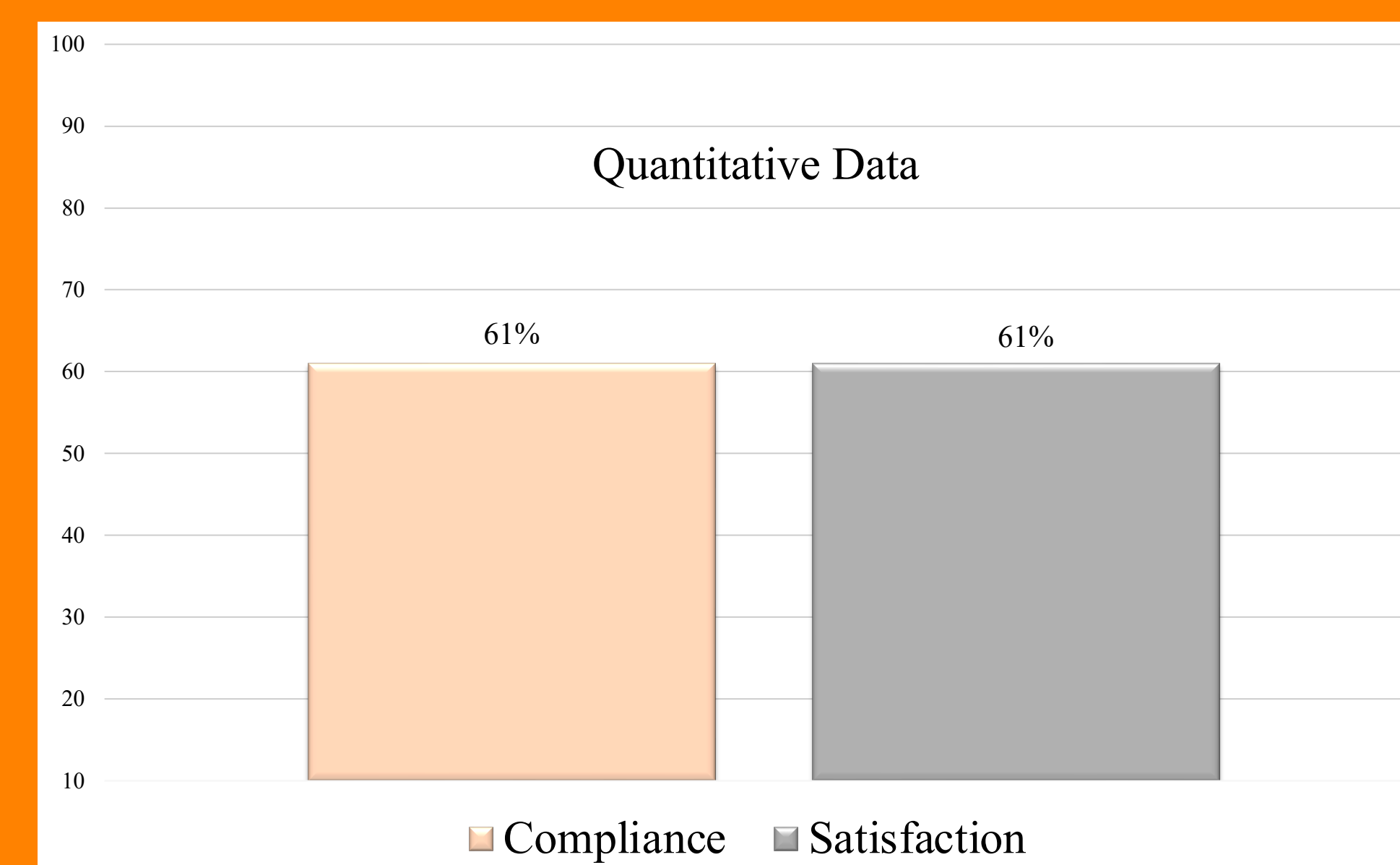
## LOCAL PROBLEM

- The project site was the main operating rooms of an academic medical center located in the Southeast region of the United States.
- The facility does not have taping practice guidelines in place.
- The purpose of this evidence-based practice quality improvement project was to implement a single-patient-use taping product for anesthesia providers to utilize when securing advanced airways.
- **The AIM was: After six weeks of implementation of a single-patient-use taping product in the main operating rooms of the facility, 60% of providers will report satisfaction and compliance with the new taping product.**

## METHODS

- The Evidence-Based Practice Improvement model was used to outline this project.<sup>6</sup>
- Literature search and critical appraisal demonstrated good evidence supporting the use of single-patient-use items.<sup>1,8</sup>
- The measured outcomes were anesthesia provider satisfaction and compliance with the single-patient-use taping product, which was evaluated by a questionnaire.

The project AIM for satisfaction and compliance were met; and **incorporating a single-patient-use product allows anesthesia providers to increase patient safety.**



References

ACKNOWLEDGEMENTS/FUNDING DISCLOSURE:  
Financial support was provided by an American Association of Nurse Anesthesiology (AANA) Foundation awarded grant.

## INTERVENTIONS

- A single-patient-use taping product was distributed to anesthesia providers to secure advanced airway devices perioperatively.
- Providers then completed a questionnaire designed to assess their satisfaction and compliance with the product, which were the measured outcomes.
- 8 Plan-Do-Study-Act Cycles completed

1. During this past week, when the single-patient-use taping product was available, how often did you use the product on patients with an advanced airway?
  - a. 0%
  - b. 25%
  - c. 50%
  - d. 75%
  - e. 100%
2. Is the single-patient-use taping product easy to use?
  - a. Not at all
  - b. Slightly
  - c. Moderately
  - d. Very
  - e. Extremely
3. I prefer this single-patient-use taping product compared to the current rolls of tape for advanced airway securement.
  - a. Strongly Disagree
  - b. Disagree
  - c. Neutral
  - d. Agree
  - e. Strongly Agree
4. How likely are you to continue to use the single-patient-use taping product if it is available?
  - a. Not Very Likely
  - b. Not Likely
  - c. Neutral
  - d. Likely
  - e. Very Likely
5. What is your overall satisfaction with the single-patient-use taping product?
  - a. Not Very Satisfied
  - b. Not Satisfied
  - c. Neutral
  - d. Satisfied
  - e. Very Satisfied
6. If you used the single-patient-use taping product when it was available, what did you like and dislike about it? Please describe.
7. If you did not use the single-patient-use taping product when it was available, what are the reasons you did not use it? Please describe.



## RESULTS

- The project AIM for satisfaction & compliance were met.
- 61% of anesthesia providers agreed that they would continue using the product if available.
- 61% of providers were satisfied with the product.
- Qualitative Data:
  - “If you used the single-patient-use taping product when it was available, what did you like and dislike about it? Please describe.”
    - Coded by positive and negative themes.

## CONCLUSIONS

- Anesthesia providers remained compliant and satisfied with the single-patient-use product.
- Implications for practice
  - Aligns with accrediting agencies' goals and priorities.<sup>3,7</sup>
  - Anesthesia providers have a direct impact on patient safety.
  - Provider satisfaction & compliance with the product guides administration's decision regarding continued investment in the product.
- To sustain product use, the facility would need to continue to purchase the product at non-educational pricing.