



**MURRAY STATE UNIVERSITY**

# Trach Care Education for Infants and Children

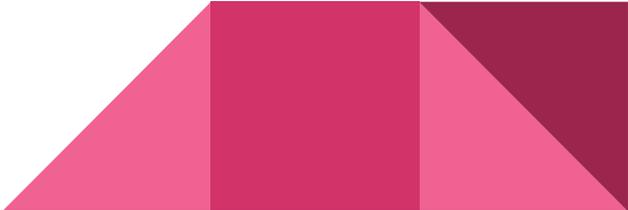
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# Problem

- When deciding what topic would be researched, the student nurses had an advantage: a family friend that worked as a nurse at the hospital.
- The students asked the nurse what she believed to be the least up-to-date policy included pediatric tracheostomy care education given to parents by the nurses before discharging the children home.
- There was no legitimate “policy” set in place. After reviewing the documents sent to the students by the nurse, the students concluded that there wasn’t nearly enough education given to the parents



# Theoretical Framework

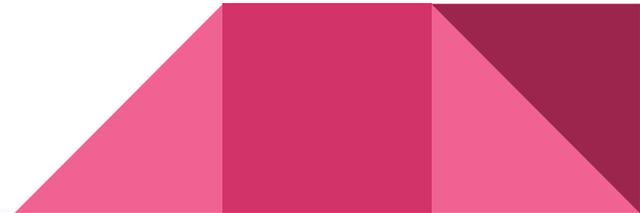
- For this project, we decided that Dorothea Orem's Self-Care Deficit Theory was the perfect framework to base our research on
  - This theory defines nursing as *"The act of assisting others in the provision and management of self-care to maintain or improve human functioning at the home level of effectiveness"* (Hartweg, 1991).
  - Orem's theory assumed that to stay alive and have basic functioning humans must engage in constant communication and connect with one another and their environment, which is extremely important to maintain comfort and care to pediatric patients with tracheostomies.
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# Research Articles

- The first article we used in our research was “Factors leading to rehospitalization for tracheostomized and ventilator-dependent infants through 2 years of age” published in the Journal of Perinatology (Akangire et al., 2017)
  - This article looked at different problems that occurred in tracheostomized pediatric patients that led to their rehospitalization.
  - The main factors that the researchers found that led to rehospitalization were:
    - Equipment malfunctions
    - Viral infections
    - Need for inhaled steroid use
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# Research Articles

- “Association of a Multidisciplinary Care Approach With the Quality of Care After Pediatric Tracheostomy” was the next research article we used
- This article looked deeper into the effectiveness of using multiple healthcare professionals from multiple specialities to care for tracheostomized patients.
- The results of this study show that the use of a multidisciplinary team led to a forty-three percent decrease in tracheostomy adverse events after the implementation of a “closed-loop monitoring system” (McKeon et al., 2019)



# Research Articles

- The final article we used in our project is “Preventing Complications of Pediatric Tracheostomy Through Standardized Wound Care and Parent Education” Published in JAMA otolaryngology- Head&Neck Surgery
  - This article stressed the importance of a strict protocol with patient and parent education (Gaudreau et al., 2016).
  - This article suggested that the “Trach Me Home” protocol, developed by the Children’s National Medical Center, is a great baseline for hospitals to use for tracheostomy education. The protocol lays out a step-by-step education that begins before the tracheostomy procedure, and gives parents multiple opportunities for hands-on practice by parents (Gaudreau et al., 2016)
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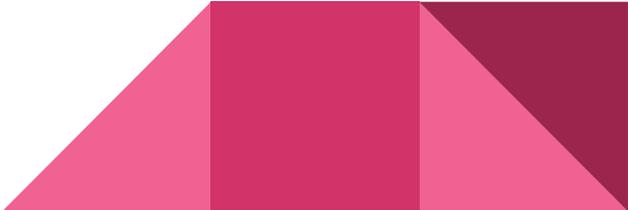
# Recommendations

Our recommendations for this facility would be to implement the “Trach Me Home” protocol into their practices, as well as using a multidisciplinary approach to every pediatric tracheostomized patient. We believe that the implementation of these changes would lead to less patient and parent anxiety, as well as better patient outcomes and eventually the removal of the tracheostomy as soon as possible. There is currently no protocol implemented for a problem that is becoming more relevant as time goes on.



# Summary

To begin this project, we found that this specific facility did not have proper education given to parents about pediatric tracheostomies. Pediatric patients with tracheostomies are a very delicate population that requires extensive, round the clock care. We were able to establish a theoretical framework with Orem's Self-Care theory that matched very well with our topic, and finally we were able to find research articles that looked at this patient population specifically. The need for a tracheostomy in pediatric patients can lead to extreme anxiety in patients and parents. Hopefully with our recommended changes anxiety can decrease and better patient outcomes can be achieved.



# References

Akangire, G., Manimtim, W., Nyp, M., Townley, N., Dai, H., Norberg, M., & Taylor, J. B. (2017). Factors leading to rehospitalization for tracheostomized and ventilator-dependent infants through 2 years of age. *Journal of Perinatology*, 37(7), 857-863.

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Hartweg, D. (1991). *Dorothea Orem: Self-care deficit theory* (Vol. 4). Sage publications.

McKeon, M., Kohn, J., Munhall, D., Wells, S., Blanchette, S., Santiago, R., ... & Watters, K. (2019). Association of a multidisciplinary care approach with the quality of care after pediatric tracheostomy. *JAMA Otolaryngology–Head & Neck Surgery*, 145(11), 1035-1042.