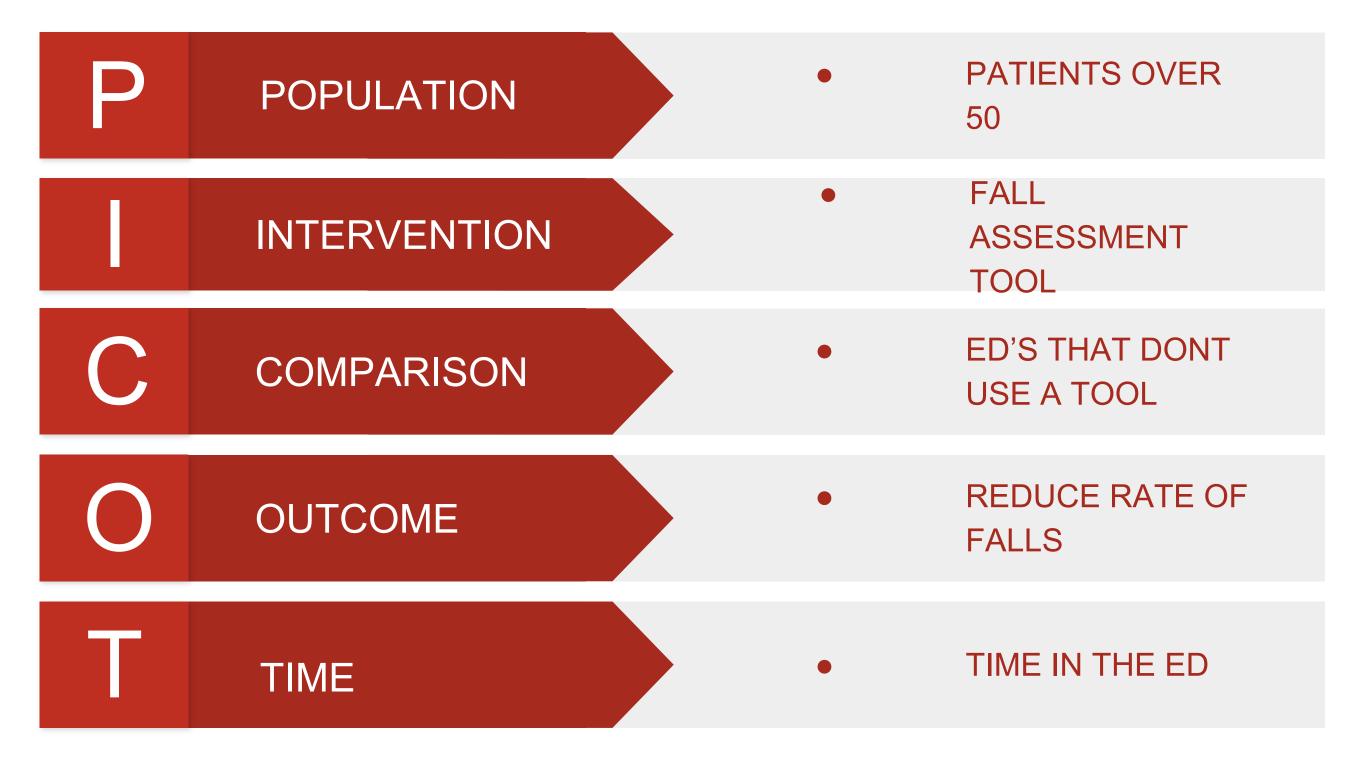
Reducing Fall Injuries in Emergency Room Patients Over 50 by Implementing an Early Fall Risk Assessment Tool

Maria Espinoza & E'Monte Freeman University of Houston Traditional BSN



PICOT Question

In patients over 50 years of age presenting to the emergency department, does implementing a fall risk assessment tool during triage reduce incidence of falls in the emergency department in comparison to emergency departments who do not utilize a fall risk assessment tool?



Literature Search

Databases used:

- UH Library database
- CINAHL
- Nursing Reference Center Plus
- PubMed

Keywords searched:

- Fall risk assessment tool
- Fall reduction in emergency department
- Nurse role in accident prevention
- Older adult hospitalization risk

Article selection criteria:

- Peer-reviewed
- Published within the last 5 years (2016-2021)

Background

Inpatient individuals are assessed for fall-risk using an assessment tool upon admission because fall-related injuries are a concern for units; based on assessment data, measures to prevent fall-related injuries are implemented. ^{4-6, 8} Unfortunately, many emergency departments do not implement such tools, as there is a high turnover rate within these units. ⁷ As a result, fall-related injuries in adults over 50 are common in emergency departments. ^{3, 7, 9, 10} Inpatient falls can produce physical injuries, pain, mistrust towards medical staff, and financial penalties for healthcare facilities. ^{6, 9, 11}



Synthesis of Findings

- Studies have found that early screening of elderly patients promotes fall risk reduction by helping healthcare workers to appropriately intervene and modify the plan of care based on the risk factors identified in a patient's physical, social, and cognitive state.¹⁻⁶
- Researchers have found that the effectiveness of fall risk tools varies among populations and that healthcare workers must personalize care to meet the specific needs of their patient or population.⁷⁻¹⁰
- The risk of falls rises in the ED due to the crowded fast-paced environment, yet the majority of research only pertains to the prevalence of inpatient falls. 1,3,5

Decision to Change Practice

CHANGE

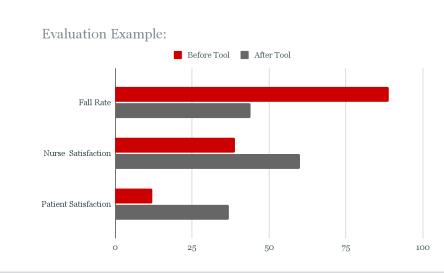
In order to reduce falls in the ED, we would like to implement the following into practice:

- Include a fall risk assessment tool into triage
- Signage showing fall risk score at bedside
- Fall mat at bedside for high risk patients
- Fall risk bracelets
- Provide non-slip socks

Implementing the changes would be the responsibility of the nurses, who would be trained on the new practice with an educational seminar. A study showed after implementing these interventions the facilities fall rate reduced by 46%.⁶

Evaluation

- Implementing the MEDFRAT fall-risk assessment tool into the triage process increases the awareness of safety risks in patients over 50 among staff in the emergency department.
- Post-assessment survey to measure patientsatisfaction, nurse-satisfaction, and patient's trust in the nurse and department staff.



References

- Goldberg, E., Resnik, L., Marks, S., & Merchant, R. (2019). GAPcare: The geriatric acute and post-acute fall prevention intervention-a pilot investigation of an emergency department-based fall prevention program for community-dwelling older adults. *Pilot and Feasibility Studies*, *5*(1), 106–106. https://doi.org/10.1186/s40814-010.0401.0
- Mazur, K., Wilczyński, K., & Szewieczek, J. (2016). Geriatric falls in the context of a hospital fall prevention program: Delirium, low body mass index, and other risk factors. *Clinical Interventions in Aging*, 11, 1253–1261. https://doi.org/10.2147/CIA.S115755
- McCarty, C., Harry, M., Woehrle, T., & Kitch, L. (2020). Screening and falls in community hospital emergency rooms in the 12 months following implementation of MEDFRAT. *The American Journal of Emergency Medicine*, 38(8), 1686–1687. https://doi.org/10.1016/j.ajem.2019.12.053
- McKechnie, D., Pryor, J., & Fisher, M. (2016). Predicting falls: Considerations for screening tool selection vs. screening tool development. *Journal of Advanced Nursing*, 72(9), 2238–2250. https://doi.org/10.1111/jan.12977 Morteza Bagi, H., Ahmadi, S., & Hosseini, M. (2017). Demographics of fall-related trauma among the elderly presenting to the emergency department: A cross-sectional study. *Emergency*, 5(1), e78–e78.
- https://doi.org/10.22037/emergency.v5i1.18497

 Renshaw, M., Tucker, P., & Norman, K. (2020). Becoming fall-safe: A framework for reducing inpatient falls. British Journal of Nursing, 29(20), 1198–1205. https://doi.org/10.12968/bjon.2020.29.20.1198

 Scott, P., Oman, K., Elerity, K., & Coman, I. (2018). Above, beyond, and ever the side rails: Evaluating the new
- Scott, R., Oman, K., Flarity, K., & Comer, J. (2018). Above, beyond, and over the side rails: Evaluating the new Memorial Emergency Department fall–risk-assessment tool. *Journal of Emergency Nursing*, 44(5), 483–490. https://doi.org/10.1016/j.jen.2018.01.007
- Seematter-Bagnoud, L., & Büla, C. (2018). Brief assessments and screening for geriatric conditions in older primary care patients: A pragmatic approach. *Public Health Reviews*, 39(1), 8–8. https://doi.org/10.1186/s40985-018-0086-7
- Stoeckle, A., Iseler, J., Havey, R., & Aebersold, C. (2019). Catching quality before it falls: Preventing falls and injuries in the adult emergency department. *Journal of Emergency Nursing*, 45(3), 257–264.
- Townsend, A., Valle-Ortiz, M., & Sansweet, T. (2016). A successful ED fall risk program using the KINDER 1 fall risk assessment tool. *Journal of Emergency Nursing*, 42(6), 492–497. https://doi.org/10.1016/j.jen.2016.03.028 Yu, W., Hwang, H., Chen, C., & Lin, M. (2021). Situational risk factors for fall-related vertebral fractures in older men and women. *Osteoporosis International*, 32(6), 1061–1070. https://doi.org/10.1007/s00198-020-05799-x

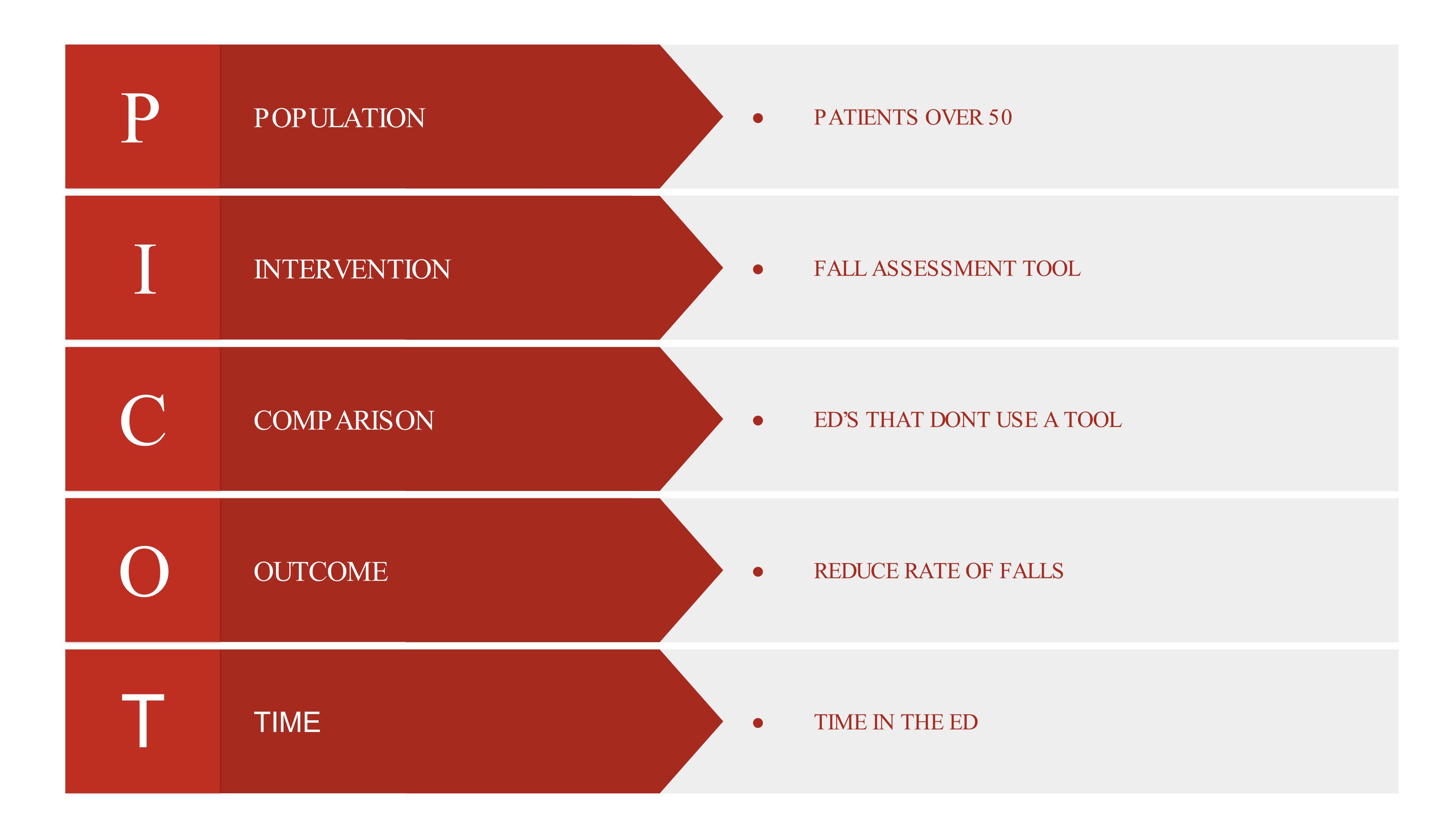
Acknowledgements

We would like to share our appreciation for The Hamill Foundation and Drs. Barbara and Andy Gessner, as their generosity has supported our work and encouraged us to strive for success within the University of Houston's College of Nursing. In addition, we would like to acknowledge the assistance and continuous support we have received from Dr. Phan, and the rest of our College of Nursing faculty. Thank you for sharing your passion with us and believing in us as we progress in our nursing journeys.

PICOT Question



In patients over 50 years of age presenting to the emergency department, does implementing a fall risk assessment tool during triage reduce incidence of falls in the emergency department in comparison to emergency departments who do not utilize a fall risk assessment tool?





Literature Search



Databases used:

- UH Library database
- CINAHL
- Nursing Reference Center Plus
- PubMed

Keywords searched:

- Fall risk assessment tool, n= 415, with criteria n= 185
- Fall reduction in emergency department, n= 32, with criteria n= 7
- Nurse role in accident prevention, n= 35,805, with criteria n= 5,701
- Older adult hospitalization risk, n= 49, with criteria n= 12

Article selection criteria:

- Peer-reviewed
- Published within the last 5 years (2016-2021)



Background



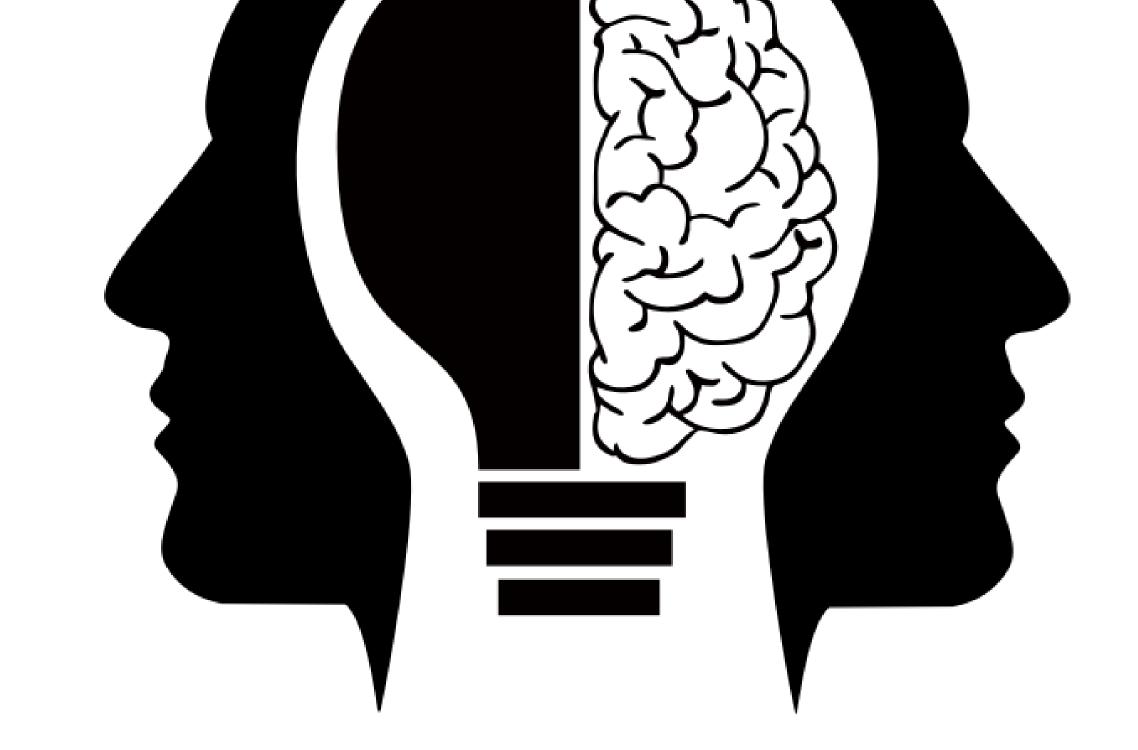
Inpatient individuals are assessed for fall-risk using an assessment tool upon admission because fall-related injuries are a concern for units; based on assessment data, measures to prevent fall-related injuries are implemented. ^{4-6, 8} Unfortunately, many emergency departments do not implement such tools, as there is a high turnover rate within these units. ⁷ As a result, fall-related injuries in adults over 50 are common in emergency departments. ^{3, 7, 9, 10} Inpatient falls can produce physical injuries, pain, mistrust towards medical staff, and financial penalties for healthcare facilities. ^{6, 9, 11}



Synthesis of Findings



- Studies have found that early screening of elderly patients promotes fall risk reduction by helping healthcare workers to appropriately intervene and modify the plan of care based on the risk factors identified in a patient's physical, social, and cognitive state. 1-6
- Researchers have found that the effectiveness of fall risk tools varies among populations and that healthcare workers must personalize care to meet the specific needs of their patient or population.⁷⁻¹⁰
- The risk of falls rises in the ED due to the crowded fast-paced environment, yet the majority of research only pertains to the prevalence of inpatient falls. 1,3,5

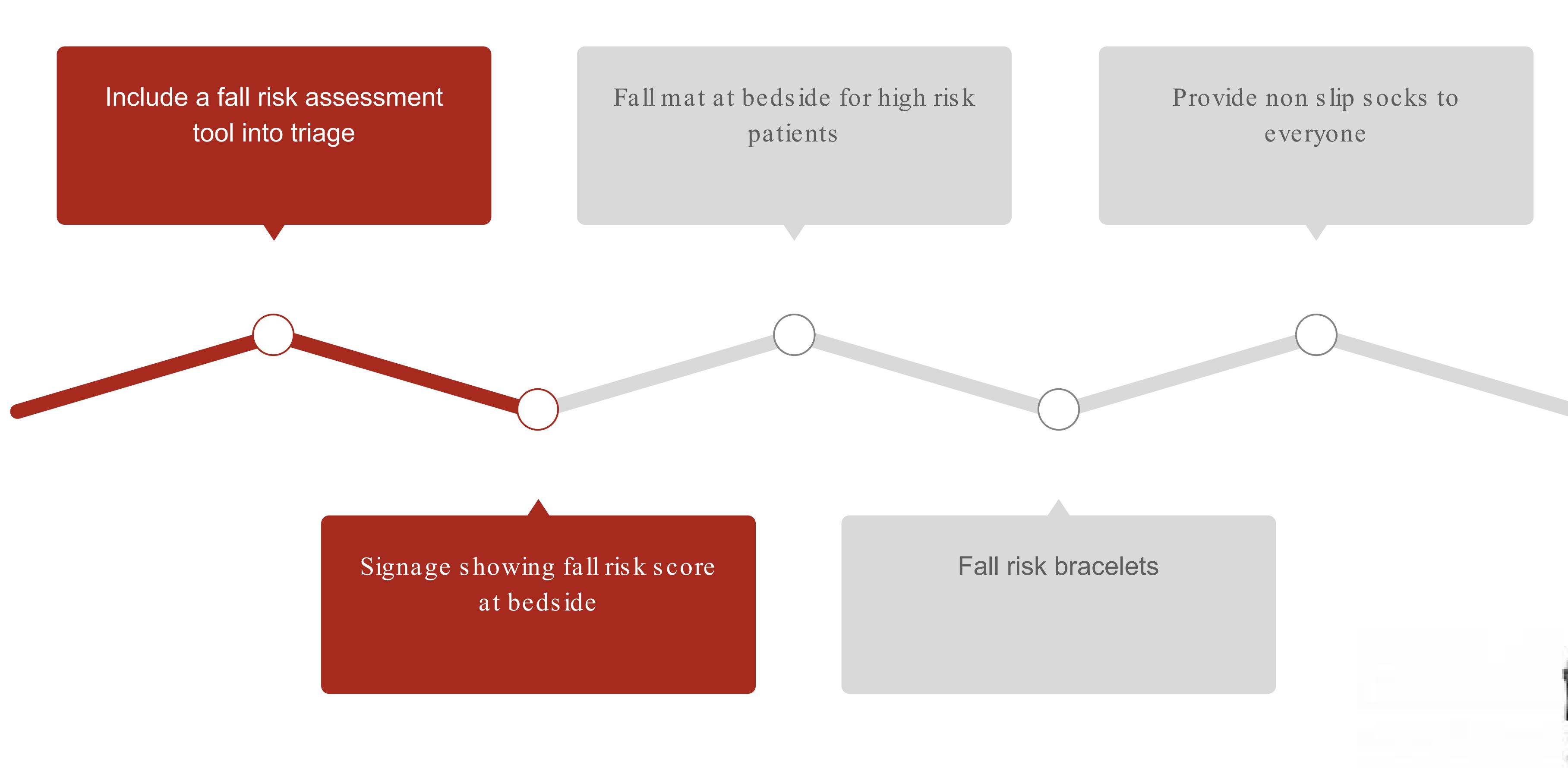




Decision to Change Practice



Implementing the changes would be the responsibility of the nurses, who would be trained on the new practice with an educational seminar. A study showed after implementing these interventions the facilities fall rate reduced by 46%.⁶





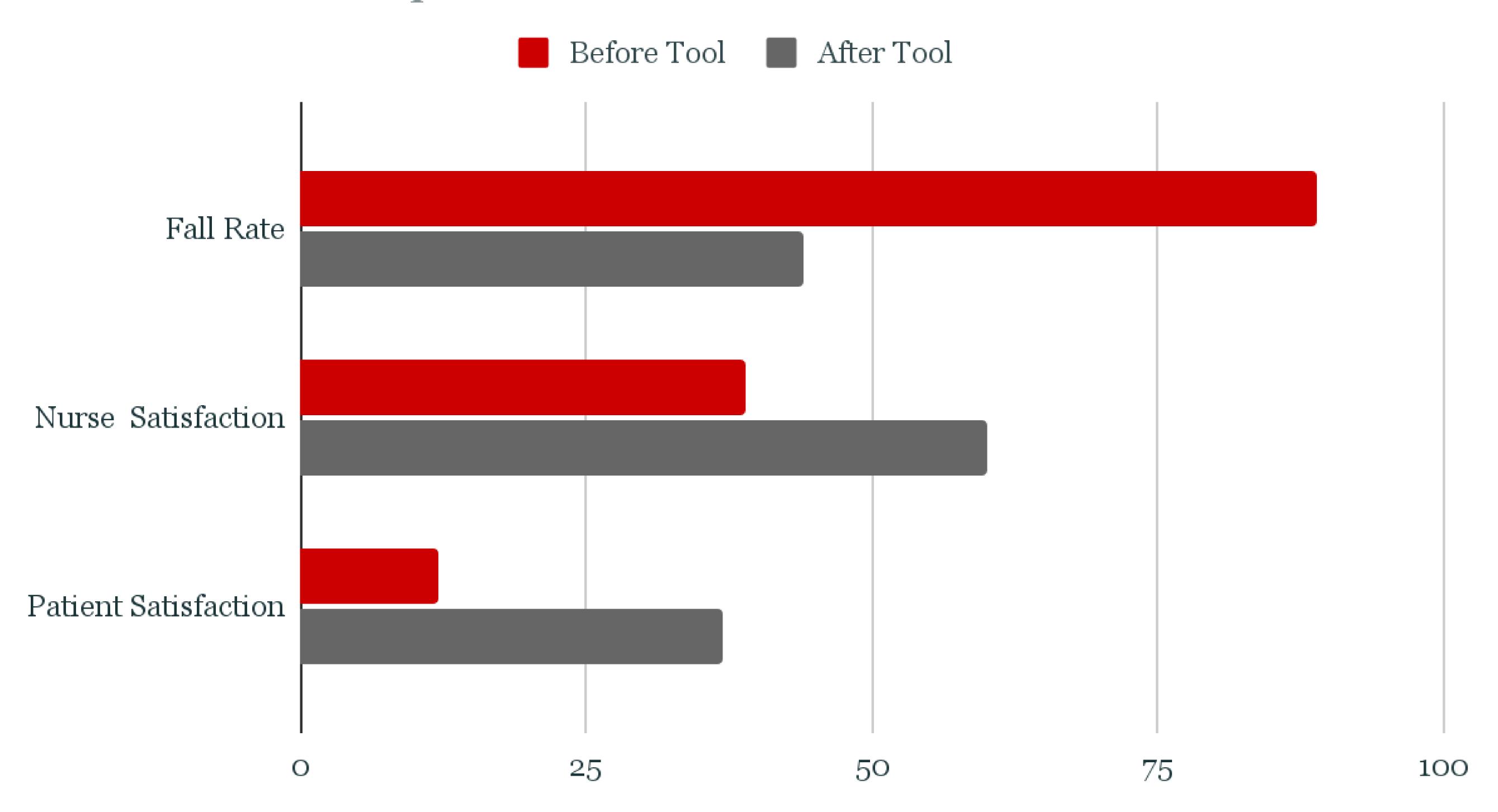


Evaluation



- Implementing the MEDFRAT fall-risk assessment tool into the triage process increases the awareness of safety risks in patients over 50 among staff in the emergency department.
- Post-assessment survey to measure patient-satisfaction, nurse-satisfaction, and patient's trust in the nurse and department staff.

Evaluation Example:





Acknowledgements



We would like to share our appreciation for The Hamill Foundation and Drs. Barbara and Andy Gessner, as their generosity has supported our work and encouraged us to strive for success within the University of Houston's College of Nursing. In addition, we would like to acknowledge the assistance and continuous support we have received from Dr. Phan, and the rest of our College of Nursing faculty. Thank you for sharing your passion with us and believing in us as we progress in our nursing journeys.





References



- 1. Goldberg, E., Resnik, L., Marks, S., & Merchant, R. (2019). GAPcare: The geriatric acute and post-acute fall prevention intervention-a pilot investigation of an emergency department-based fall prevention program for community-dwelling older adults. *Pilot and Feasibility Studies*, 5(1), 106–106. https://doi.org/10.1186/s40814-019-0491-9
- 2. Mazur, K., Wilczyński, K., & Szewieczek, J. (2016). Geriatric falls in the context of a hospital fall prevention program: Delirium, low body mass index, and other risk factors. *Clinical Interventions in Aging*, 11, 1253–1261. https://doi.org/10.2147/CIA.S115755
- 3. McCarty, C., Harry, M., Woehrle, T., & Kitch, L. (2020). Screening and falls in community hospital emergency rooms in the 12 months following implementation of MEDFRAT. *The American Journal of Emergency Medicine*, 38(8), 1686–1687. https://doi.org/10.1016/j.ajem.2019.12.053
- 4. McKechnie, D., Pryor, J., & Fisher, M. (2016). Predicting falls: Considerations for screening tool selection vs. screening tool development. *Journal of Advanced Nursing*, 72(9), 2238–2250. https://doi.org/10.1111/jan.12977
- 5. Morteza Bagi, H., Ahmadi, S., & Hosseini, M. (2017). Demographics of fall-related trauma among the elderly presenting to the emergency department: A cross-sectional study. Emergency, 5(1), e78–e78. https://doi.org/10.22037/emergency.v5i1.18497
- 6. Renshaw, M., Tucker, P., & Norman, K. (2020). Becoming fall-safe: A framework for reducing inpatient falls. *British Journal of Nursing*, 29(20), 1198–1205. https://doi.org/10.12968/bjon.2020.29.20.1198
- 7. Scott, R., Oman, K., Flarity, K., & Comer, J. (2018). Above, beyond, and over the side rails: Evaluating the new Memorial Emergency Department fall–risk-assessment tool. *Journal of Emergency Nursing*, 44(5), 483–490. https://doi.org/10.1016/j.jen.2018.01.007
- 8. Seematter-Bagnoud, L., & Büla, C. (2018). Brief assessments and screening for geriatric conditions in older primary care patients: A pragmatic approach. *Public Health Reviews*, 39(1), 8–8. https://doi.org/10.1186/s40985-018-0086-7
- 9. Stoeckle, A., Iseler, J., Havey, R., & Aebersold, C. (2019). Catching quality before it falls: Preventing falls and injuries in the adult emergency department. *Journal of Emergency Nursing*, 45(3), 257–264. https://doi.org/10.1016/j.jen.2018.08.001
- 10.Townsend, A., Valle-Ortiz, M., & Sansweet, T. (2016). A successful ED fall risk program using the KINDER 1 fall risk assessment tool. *Journal of Emergency Nursing*, 42(6), 492–497. https://doi.org/10.1016/j.jen.2016.03.028
- 11.Yu, W., Hwang, H., Chen, C., & Lin, M. (2021). Situational risk factors for fall-related vertebral fractures in older men and women. *Osteoporosis International*, 32(6), 1061–1070. https://doi.org/10.1007/s00198-020-05799-x

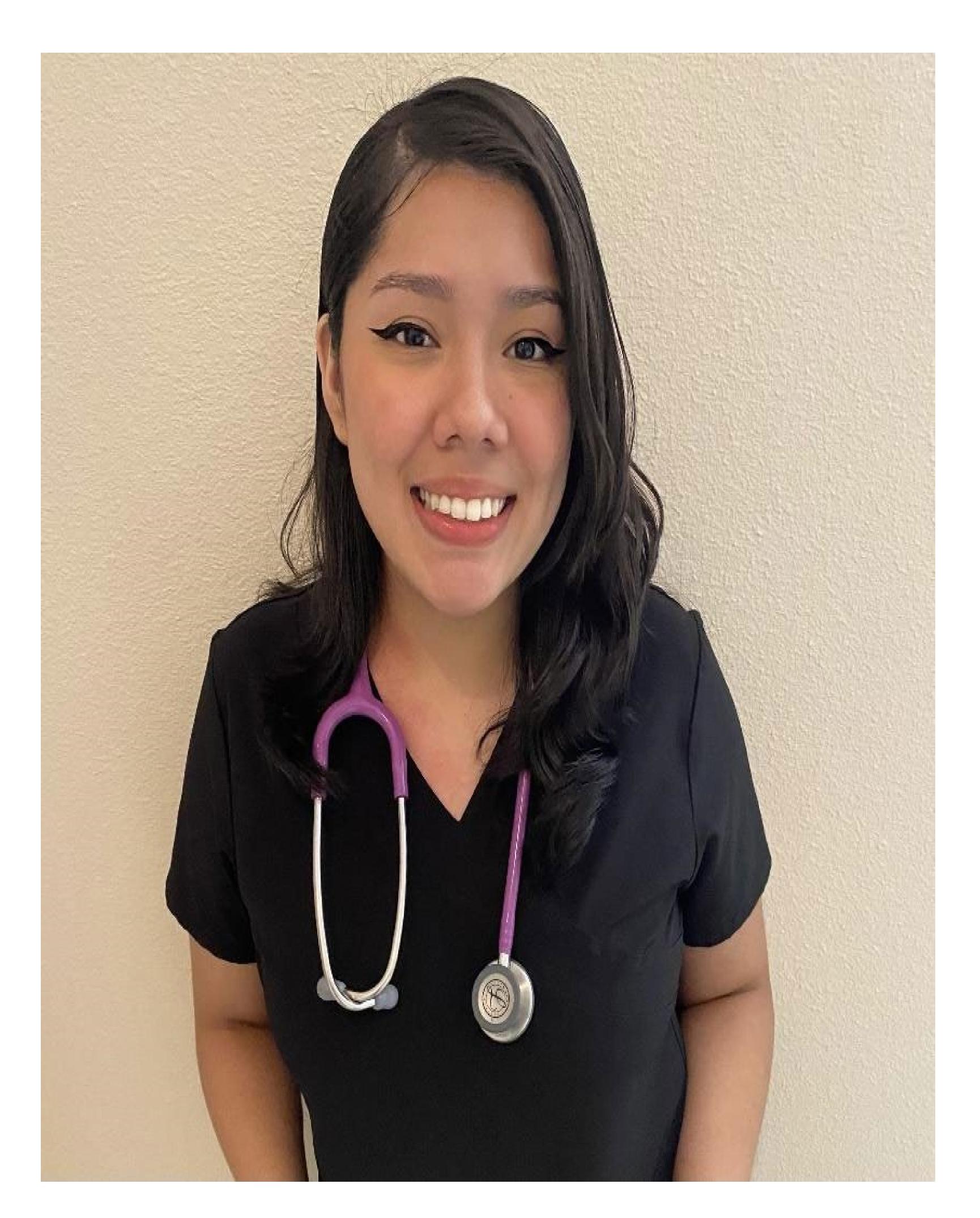
The Team





E'Monte Freeman







Maria Espinoza

