Implementation of a Sleep Hygiene Bundle to Reduce Delirium in Adult Oncology Inpatients: An Evidence-Based Practice Project
Nicole Dominach DNP, APRN, AGPCNP-BC & Amber Gilbert DNP, APRN, OCN, AGPCNP-BC

PROBLEM STATEMENT
- Sleep disturbance is a common complaint in the oncology population that can lead to increased rates of delirium.
- Sleep disturbance is found in up to 75% of patients diagnosed with cancer.
- 16% of inpatients admitted to a National Cancer Institute-Designated Comprehensive Cancer Center (NCI-DCC) were diagnosed with delirium.

PROJECT PURPOSE
- The purpose of this Evidence-Based Practice (EBP) project is to develop and implement an evidence-based sleep hygiene bundle to reduce delirium rates in the oncology inpatient population at a NCI-DCC.
- The goal is to have an overall decrease in rates of delirium.

SETTING
- A 206-bed NCI-DCC located in Tampa, FL.
- The malignant hematology unit primarily cares for patients with a acute leukemia, lymphoma, and multiple myeloma.

INSTRUMENTS/TOOLS
- Delirium will be measured using the Confusion Assessment Measurement (CAM) short version score.
- The CAM has a sensitivity rate of 94-100% and a specificity rate of 90-95%.
- Sleep hygiene bundle worksheets will be given to staff to complete each night for each patient.

METHODS
- Subjects (Participants)
  - Inpatients on a 24 bed malignant hematology unit at an NCI-DCC.
  - Exclusion criteria includes patients withdrawing from alcohol, those experiencing sundown syndrome, comfort measures only patients, and patients with acute psychiatric conditions.
  - 38 Nurses and 18 oncology technicians on a malignant hematology inpatient unit.
- Project Timeline
  - Development of this EBP, which emphasizes the incorporation of all interdisciplinary healthcare professionals creating comfort for patients through holistic methods.

RESULTS
- The Yale Delirium Prevention trial addressed sleep disturbance with a non-pharmacological sleep protocol which reduced the need for sedatives as well as reduced the number of episodes of delirium (P=0.03).
- Educational in-services with meaningful data have been proven to increase team member knowledge and improve patient care as described by the Clinical Journal of Oncology Nursing.
- It was the authors’ goal that utilizing a similar bundle in the oncology population along with team member educational in-services would have had a similar outcome as seen in the literature.

DISCUSSION
- Based off research conducted similar to this EBP project, improved sleep resulting from implementation of a sleep hygiene bundle has shown to decrease not only number of cases, but decrease the total number of days with delirium as well.
- Education and training of staff has been shown to improve care of patients. This has been seen in earlier projects regarding identification of delirium via the CAM score at the Cancer Center. This has continued with education regarding sleep hygiene in the care of hospitalized oncology patients.
- Frequent, face-to-face in-services have shown to be most effective in direct patient care which was the authors’ initial plan.

IMPLICATIONS FOR ADVANCED PRACTICE
- Research supports the use of sleep hygiene bundles to improve sleep disturbances that in turn proved to concurrently reduce delirium in hospitalized patients.
- Addressing delirium through an advanced practice registered nurse led EBP project has the potential to reduce the healthcare system burden that results from delirium experienced during hospitalization of the oncology patient.

SUSTAINABILITY
- This EBP project could be continued in the future through incorporating the sleep hygiene bundle worksheet through the an Interdisciplinary Plan of Care(IPC) incorporated through the electronic medical record.
- Education regarding sleep hygiene could be incorporated into annual competencies to keep team members up to date on best practice.

REFERENCES

Increased staff knowledge and utilization of a sleep hygiene bundle has proven to reduce rates of delirium in the inpatient oncology population.