Effects of Noise Reduction and Care Clustering on Quality of Sleep in Critical Care Patients

Micaila S. J. Iversen  
_Cedarville University, miversen@cedarville.edu_

Natalie L. Neidig  
_Cedarville University, nneidig@cedarville.edu_

Muriel P. Shannon  
_Cedarville University, mshannon@cedarville.edu_

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Micaela Iversen, Natalie Neidig, and Muriel Shannon
Cedarville University School of Nursing

PATIENT CARE ISSUE

Background & Significance of Sleep in Critical Care Patients
- Extreme sleep deprivation in ICU patients has been a common problem over the past 30 years (Nesbitt & Goode, 2013).
- A lack of sleep can have many detrimental consequences on patients, including negative effects on multiple body systems, such as neurological, immune, cardiovascular, and respiratory (Temko & Parker, 2009).
- Cognitive impairment is the most readily observable presentation of sleep deprivation (Cirelli, 2014).
- Reduced sleep can lead to mental status changes, resulting in depression, anxiety, poor mood, irritability, and poor judgment (Cirelli, 2014).
- A decrease in sleep can disrupt circadian rhythms, causing body temperature differences during wake and sleep cycles (Cirelli, 2014).

EVIDENCE-BASED PRACTICE QUESTION

Question: In critical care patients (P), how do reduced noise levels (I), compared to care clustering (C), affect the quality of sleep (O)?

P: Critical Care Patients
I: Reduced Noise Levels
C: Care Clustering
O: Quality of Sleep

REGISTERED NURSE INTERVIEW

Grandview Medical Center RN, Vernena Hibbitt, stated:
- Sleep deprivation is a problem on the unit where she currently works.
- Patients will often complain about noise disruptions during the day and night.
- Interventions are implemented to keep noise levels and nursing care interruptions to a minimum.
- Two hours are set aside each afternoon to enforce a time of quiet throughout the unit for the benefit of the patients and staff.
- Noise reduction and care clustering allow for better periods of rest, which she observes result in lower levels of anxiety and blood pressure.

METHODS

Databases: UpToDate, CINAHL, PubMed, PsycINFO, Proquest, and CCForum

Inclusion Criteria: Research published between 2009 and 2014 pertaining to the quality of sleep, effects of noise, and implementation of nurse care on critical care populations.

Exclusion Criteria: Articles published more than 5 years ago, or articles that solely discussed specific interventions other than the topics of quality of sleep, noise reduction, and nurse care clustering in critical care populations.

Key Words: ICU patients, sleep deprivation, insomnia, health, nursing, care clustering, promoting sleep, delirium, interventions, noise.

RESULTS

| Articles Examined | 20 |
| Articles Used | 10 |

EVIDENCE-BASED PRACTICE RECOMMENDATIONS

- Noise reduction to encourage undisturbed sleep can be accomplished by minimizing the level of noise made by staff and by distributing earplugs.
- Clustering care, by postponing non-essential nighttime interactions and collectively prioritizing critical interventions, will limit sleep disturbances.
- Intensive care units should be given uniform sleep assessments to help nurses assess the level of noise made by staff and by distributing earplugs.

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REFERENCES