

Thinking Outside The Box – Pandemic DNP Project

By thinking outside the box, DNP projects can push the boundaries of conventional approaches and generate creative solutions to disseminate research like systematic reviews, meta-analyses, and rapid reviews to help translate evidence-based research into practice to improve outcomes. This approach was attempted during the pandemic through the enormous task of completing a systematic review as a novice researcher identifying adverse outcomes from insufficient sleep in the hospitalized, non-critical older adult population.

Pandemic DNP Project:

DOCTOR OF NURSING PRACTICE DEGREE

Identifying Adverse Outcomes from Insufficient Sleep in Hospitalized Non-critical Older Adult Population: A Systematic Review
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Problem

Recognized adults not sleeping during their hospitalization. Aim was to identify adverse outcomes caused by insufficient sleep while hospitalized in the non-critical older adult population.

Literature review identified:

- Sleep insufficiency correlates to anxiety/depression, elevated C-reactive protein, and falls.
- Interventions have been implemented to improve sleep in the hospital.
- Factors for sleep disruption in the hospital.
- Adverse outcome frequent at night in the hospital.
- Hospitalized elderly experienced high risk for delirium, and when they had positive perception of sleep in the hospital, they had positive total resilience.

Methodology

- Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA)
- Systematic review, correlation of sleep insufficiency to adverse outcomes in patients > 65 years, hospitalized in a non-critical care unit for greater than 1 night.
- Studies included: Published from January 2010 to October 2019, full-text, original studies in English.
- Removal of duplicate studies and abstract-only.
- Secondary review included reading a full-length article.

Exclusion criteria: Participants less than 65 years old, studies not completed in the hospital or non-critical area, no sleep related outcomes, less than 1 night in the hospital, studies: non-peer review, blogs, social media, newsletters, and unpublished material.

Recommendations

The aim was unmet; further research is needed to correlate sleep insufficiency in the hospital with adverse outcomes. However, 7 other articles that were pertinent but did not meet inclusion criteria add to the findings (delirium, quality of sleep and increased confusion) that pain, health care cost, glycemic control, factors for sleep disruption, decrease duration and increased risk for sleep aid were noted.

Conclusions

Aim was not met with this project; insufficient sleep may be a risk factor for delirium, increased confusion, and poor quality of sleep.

Limitations:

- Non-modifiable factors associated with sleep disruption in the hospital.
- Medications, a new environment ("right night effect), anxiety, stress, pain, and acute illness.
- Insufficient sleep is underreported, unrecognized or considered the normal in the hospital setting.

Results

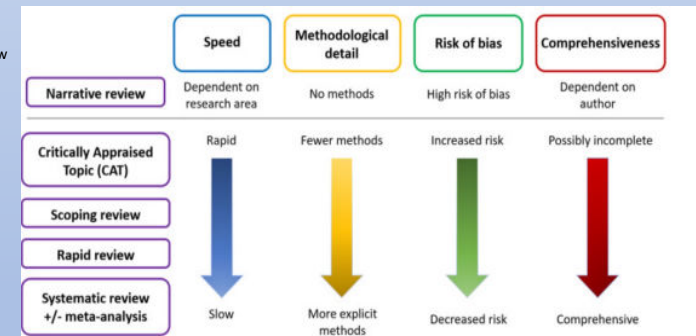
406 Full-text, original published studies were reviewed, and only 6 met inclusion and exclusion criteria. No correlation was found linking insufficient sleep to adverse outcomes. Found insufficient sleep increased the risk for delirium, poor sleep quality, and confusion.

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EDINBORO UNIVERSITY CLARION UNIVERSITY
 The DNP degree is a joint program offered by Edinboro and Clarion Universities

Tips Pandemic DNP Projects:

- Experience:**
 - Opportunity for the DNP student who could not obtain Institutional Review Board (IRB) approval to complete a quality improvement study during a pandemic. An unconventional DNP project approach allowed the DNP student to efficiently search, read, and evaluate studies in order to summative information that can be translated into practice and improve outcomes.
- Benefits:**
 - Synthesis of existing evidence allows the DNP student to compile and analyze existing studies, providing a comprehensive overview of the available evidence on a specific topic which can identify knowledge gaps and guide future research like the development of guidelines, protocols, and interventions to present to policymakers, administrators and other researchers.
 - Did not require IRB approval when all research and resources were placed on temporary hold.
 - Opportunity for students to work as a group on their DNP projects since a systematic review, meta-analysis or a rapid review requires more than one reviewer, completed over several months to years.
- Creative DNP Projects:**
 - Systematic Review
 - Meta-Analysis
 - Rapid Review
- Tools:**
 - Review Article A typology of reviews: An analysis of 14 review types and associated methodologies – Grant & Booth.
 - Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA)
 - 2020 Explanation, Checklist, and Flow Diagrams
 - Cochrane Handbook for Systematic Reviews of Interventions – Editors: Higgins & Green
 - School Librarian



Reference: James Madison University (JMU) Libraries. (2023, July 8). *Doctorate of nursing practice (DNP) project resources*. JMU. https://guides.lib.jmu.edu/nursing/dnp/lit_review#s-lg-box-27366247

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