Exploring the Invisible Work of Nurses and How Cognitive Load Influences Hospital-Based Nursing Practice

Laura A. Vasel RN, MSN, CPNP, CNE

Georgia Baptist College of Nursing of Mercer University, Atlanta, Georgia

BACKGROUND

- Nursing workload in acute care is affected by many different factors.
- Some factors are easily measured such as the number of admissions, or patient census.
- Other factors include changes such as:
  - an increase in the number of pharmaceuticals,
  - more prevalent and complex diagnostic testing,
  - shortened patient length of stay, and
  - exponential growth of technologies .
- There are factors that are not as easy to quantify with a direct impact on nursing workload in acute care including the cognitive work of nursing (Neill, 2011).

PURPOSE

The purpose of this review was to examine the invisible work of nursing and explore how an individual nurses' cognitive load may or may not influence nursing practice in hospital based settings.

REVIEW PROCESS

Search Questions:

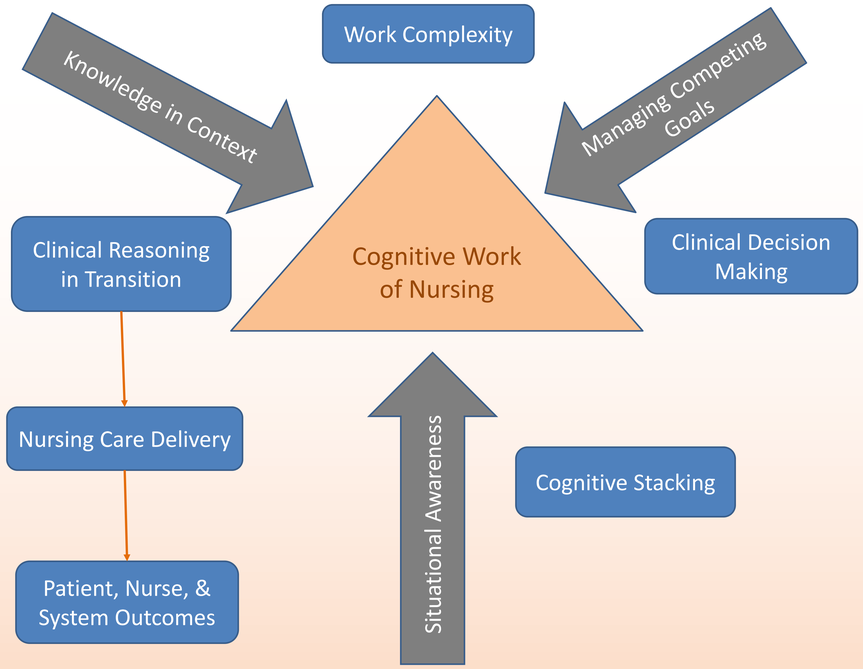
1. What has been published on a nurse's cognitive load during patient care?
2. What has been published on cognitive load in nursing?

Search Process:

- PubMed, CINAHL, and EBSCO databases.
- Search terms: cognitive load in various combinations with the following terms, nursing, nursing practice, hospital based care, cognitive work, nursing workload.

CONCEPTUAL FRAMEWORK

The framework created by Sitterding and Broome (2015), includes six major concepts to describe the cognitive work of nursing and three subconcepts.



POSSIBLE INFLUENCES

- Factors identified in the literature influencing nurses cognitive load and nursing practice include:
  - information overload
  - interruptions
  - intentional omissions of care
  - communication inconsistencies
  - lack of time
  - cognitive shifts
  - cognitive stacking
- In addition, nurses report personal, environmental, administrative, system and technology as factors

FINDINGS

- Cognitive load refers to the total amount of mental effort being used in the working memory, and is comprised of germane load, extraneous load, and intrinsic load.

- Cognitive load: used in education, cognitive psychology, and simulation design extensively.
- The cognitive work of nursing: the organizing, prioritizing, and making decisions in nursing practice.
- The volume/rate of information varies greatly; nurses process 1,800 data points/patient/day in ICU.
- Increased cognitive load results in nurse fatigue, attention, inattentional blindness resulting in patient care errors (Sitterding and Broome, 2015).
- Understanding the cognitive work of nursing is essential to achieve the intended patient care outcomes including quality care, and safe patient outcomes in a healthy work environment (Ebright et al., 2003).

CONCLUSION

- The findings from the literature suggest an increased cognitive load may adversely affect decision making in educational or simulated practice settings.
- We do not have an understanding of the factors that impact nurses' cognitive workload and how it impacts clinical decision making and patient safety.
- Further research is needed to explore this relationship as part of nursing profession's commitment to safe, quality care.

ACKNOWLEDGEMENTS

Pi Gamma Chapter of Sigma Theta Tau International
Georgia Baptist College of Nursing of Mercer University