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

Laura Anne Vasel, MSN
College of Nursing, Georgia Baptist College of Nursing of Mercer University, Atlanta, GA, USA

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Rising Stars of Research and Scholarship Invited Student Posters

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Invisible work of nursing, clinical decision making and cognitive load

References:


Abstract Summary:
This poster presentation will explore the invisible work of nurses in hospital based settings. Factors such as work complexity contributions, and increased cognitive load will be presented to illustrate how it influences nurses’ clinical decision making.

Learning Activity:

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<th>LEARNING OBJECTIVES</th>
<th>EXPANDED CONTENT OUTLINE</th>
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<td>The learner will be able to describe potential factors influencing the cognitive load of nurses in nursing practice.</td>
<td>Provide a framework illustrating the factors identified in the literature as contributing to increased cognitive load and the increased complexity of nursing practice.</td>
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<td>The learner will be able to recognize the importance of the invisible work of nursing and how it may influence quality and safety outcomes.</td>
<td>Describe the formation of modern day nursing practice as it relates to the increase use of technology, information, and increased complexity of care resulting in complex clinical decision making and episodes of missed nursing care.</td>
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Abstract Text:
Over the past two decades, many changes have occurred in health care delivery services, and as a result, nursing practice has evolved. Changes such as the increase in the number of pharmaceuticals on the market that nurses must safely administer, how diagnostic testing is more prevalent and complex, the shortened patient length of stay, and the exponential growth of technology at the bedside in the patient care settings result in a complex practice environment. Nurses now rely on technology to inform clinical decision making on patient care units with increased patient acuity and complex clinical scenarios. Nursing workload in acute care is affected by many different factors, some of which are easily measured such as the number of admissions, patient census, procedure, turnover, or age of clients. There are also 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). Literature suggests an increased cognitive load may adversely affect decision making in educational or simulated practice settings. 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. Whereas the cognitive work of nursing refers to the organizing, prioritizing, and making decisions in nursing practice which comprises a nurse’s cognitive load. This cognitive work, or invisible work, of nursing has many implications for the development of healthy work environments. The volume and rate of information at any given time during an average shift for a direct care nurse varies greatly, with a nurse processing 1,800 data points per patient per day in the average intensive care unit. The impact of increased cognitive load on nurse fatigue, attention, and information interpretation is remarkable and may produce inattentional blindness resulting in patient care errors (Sitterding and Broome, 2015). Patient safety research has focused on staffing ratios, education levels of RNs, and the health care environment. We do not have an understanding of the factors that impact nurses’ cognitive workload and how it impacts clinical decision making and patient safety. Possible factors identified in the literature include information overload, interruptions, intentional omissions of care, communication inconsistencies, lack of time, cognitive shifts, cognitive stacking. Through this process of cognitive stacking, the nurse continuously adapts to and copes with challenges in care delivery related to prioritization, ordering of care needed, as well as managing competing organizational and personal goals in the context of a complex work environment. Nurses have also reported that personal, environmental, administrative, system and technology factors, as well as autonomy and control factors, all contribute to
how cognitive load is managed (Kirchbaum et al., 2007). Nursing clinical judgment can drive care in a perfect linear world, however we do not know what transpires to influence clinical judgments about care in a complex health care environment, also referred to as the invisible work of nursing. Understanding the cognitive work of nursing and how increased cognitive load affects nurses will elucidate factors on how the cognitive load can be reduced or managed effectively. While quality and the safety continue to be on the forefront of health care initiatives, no attention has been paid to the effect of increased cognitive load of nurses. 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). The nursing profession needs to understand why intended patient outcomes are often not achieved, even with excellent education programs and redesigned healthcare systems. This poster presentation will include a review of the literature related to the cognitive work of nursing in addition to proposing a model based on Sitterding and Broome’s (2015) Cognitive Work of Nursing framework.