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# Nursing workload in the acute-care setting: A concept analysis of nursing workload

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ABSTRACT

*Background:* A pressing need in the field of nursing is the identification of optimal staffing levels to ensure patient safety. Effective staffing requires comprehensive measurement of nursing workload to determine staffing needs. Issues surrounding nursing workload are complex, and the volume of workload is growing; however, many workload systems do not consider the numerous workload factors that impact nursing today.

*Purpose:* The purpose of this concept analysis was to better understand and define nursing workload as it relates to the acute-care setting.

*Methods:* Rogers' evolutionary method was used for this literature-based concept analysis.

*Discussion:* Nursing workload is influenced by more than patient care. The proposed definition of nursing workload may help leaders identify workload that is unnoticed and unmeasured.

*Conclusion:* These findings could help leaders consider and identify workload that is unnecessary, redundant, or more appropriate for assignment to other members of the health care team.

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Estimates of patient deaths from medical error range from 98,000 to 400,000 per year in the United States (James, 2013). These errors compromise patient safety and decrease trust in health care institutions (Institute of Medicine, 2001). Nurse staffing has clearly been linked to patient safety, care quality, and cost (Aiken, Clarke, & Sloane, 2002; Needelman, Buerhaus, Mattke, & Zelevinsky, 2002; Twigg, Geelhoed, Bremner, & Duffield, 2013). A commonly cited statistic is that each additional surgical patient that is added to a nurse's workload increases the patient's odds of dying by 7% (Aiken, Clarke, Sloane, Sochalski, & Silber, 2002). Nursing workload is increasing, and many traditional workload measurement systems, such as nurse to occupied bed ratios, diagnosis-related group (DRG) models, and intensity (timed task-based) models, do not take into account the substantial nonpatient-focused workload that impacts nursing today (Aiken et al., 2002; Bogossian, Winters-Chang, & Tuckett, 2014; Myny et al., 2014). Examples of nonpatient-focused workload are time spent waiting for a returned page, troubleshooting, task switching, distractions/interruptions, tracking down equipment, or finding a policy that is needed for a care decision. Time that is

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consumed by this type of workload reduces the amount of available time a nurse has to spend at the patient's bedside, unless it is accounted for within workload measurement and then organizations staff accordingly. The key to effective staffing depends on an easy to use, comprehensive, and valid measure of nursing workload to determine the staffing need (Morris, MacNeela, Scott, Treacy, & Hyde, 2007). The purpose of this concept analysis was to better understand and define the many aspects of nursing workload.

Workload measurement systems are used to determine the amount of staff needed to accomplish safe patient care. These systems have varying ways of categorizing workload; for example, some may categorize patient transport as indirect patient care and others may place it in the "other activities" category. Comparison of workload, staffing, and outcomes is difficult when models do not share the same definitions (Hoi, Ismail, Ong, & Kang, 2010; Myny et al., 2014). Therefore, the goal of this concept analysis was to review common definitions currently in use, discuss limitations of those definitions and measurement systems, identify interrelatedness with other concepts such as turbulence and interruptions, classify the categories of workload, and ultimately propose an inclusive definition that lends itself to more complete empirical testing. This definition will identify many of the components of nursing workload and enhance our ability to evaluate, measure, and study nursing workload. This is important because in the acute-care setting, when nurses are assigned the appropriate amount of work, they are able to provide quality care and improve patient outcomes (Kane, Shamliyan, Mueller, Duval, & Wilt, 2007; Needelman et al., 2002; Patrician et al., 2011).

Another driving force behind this concept analysis is a desire to better understand the sheer amount and complexity of the work that direct care nurses perform. As one nurse remarked, "Nursing is not supposed to be easy but I didn't think I'd be swimming upstream every day. I just want to take care of patients, but instead I spend all my time documenting in mandatory fields, finding or troubleshooting equipment, and begging pharmacy or someone else for the things my patient needs. To make it worse, every task takes twice as long as it should because I don't have the support I need. If administration could do one thing for nurses it would be to shield them from the unnecessary work so that more time could be spent on what's important; taking care of patients" (Armstrong, 2014). Nursing leadership cannot help nurses to prioritize what needs to be done day to day, but they can help to identify areas of waste, processes in need of improvement, or unnecessary workload once nursing workload itself is better understood.

## Method

Rogers' Evolutionary Method was used for this literature-based concept analysis to assess nursing workload in acute-care hospital settings. The steps included in this method are (a) identifying the concept and its synonyms, (b) selecting a setting, (c) collecting information, (d) analyzing the findings, (e) examining an exemplar, and (f) discussing implications of the concept in nursing. The evolutionary method is useful for this concept analysis because of the dynamic nature of workload, the drastic changes the concept has undergone over time, and the dependency of the concept on the context in which it is studied (Rogers & Knafl, 2000). In this article, the steps of Rogers' method are presented in the following way: first, the concept is identified in a broad historical sense and then from a nursing perspective. The setting is identified, and then the literature search criterion used to collect the information for this analysis is discussed. The analysis of the findings is presented in four steps: (a) discussing common definitions and synonyms, (b) evaluating acute-care workload measurement systems, (c) identifying influencing factors of nursing workload when caring for patients on an inpatient unit, and (d) classifying how nurses spend their time caring for those patients. An exemplar is then presented and discussed to enhance understanding of the concept. This article concludes with a discussion which includes implications for nursing, limitations of this analysis, and a proposed definition of nursing workload.

### *Search Criteria*

The key words, "nursing workload," "workload measurement," and "workload and patient safety," were searched through PubMed and CINAHL for this concept analysis. The searches were limited to review articles available in English and published over the last 10 years. This resulted in 228 articles from PubMed and 93 articles from CINAHL. The articles were further screened for applicability to the acute-care setting by selecting only those that were related to nurses caring for patients within an acute-care hospital unit. Both snowball and ancestry methods were used to identify additional key studies for inclusion. Articles which discussed the relationship of workload to nurse retention were excluded because nurse turnover due to excessive workload was determined to be a result of workload vs. a component of it. Gray literature (i.e., nonjournal publications) was searched, and one governmental report was selected for review. The initial search was limited to the last 10 years but using the ancestry method to identify key studies led to the inclusion of important articles that were published before 2005. Ultimately, 21 publications including one government report, three integrative reviews, and 17 articles published between 1990 and 2014 were chosen for use in this concept analysis.

### *Data Extraction*

Each article was read by the first author and identified as a contributor to one or more of the following