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Ambulatory Registered Nurse Perspectives on Health Literacy Roles and Patient Communication

Gloria Medina Redden
Walden University

Walden University

College of Health Sciences

This is to certify that the doctoral dissertation by

Gloria Redden

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Review Committee
Dr. Earla White, Committee Chairperson, Health Services Faculty
Dr. Kimberly Dixon-Lawson, Committee Member, Health Services Faculty
Dr. Egondu Onyejekwe, University Reviewer, Health Services Faculty

Chief Academic Officer
Eric Riedel, Ph.D.

Walden University
2017

Abstract

Ambulatory Registered Nurses' Perspectives on Health Literacy Roles and Patient Communication

by

Gloria Medina Redden

MSA, California State University, Bakersfield, 2004

BSN, Chamberlain University, 2012

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Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

Registered nurses (RNs) have a significant role in communicating health information to patients. The problem addressed in this study was RNs roles with health literacy and communicating health information using words that the patient understands. This study found that ambulatory RN perspectives on their roles in health literacy and patient communication may improve health outcomes and optimal wellness. The purpose of this qualitative study was to examine and describe ambulatory RN perspectives on their roles in health literacy and patient communication, as these are necessary components linked to better health outcomes. The conceptual framework for this study was the nurse role effectiveness model. Fifteen RNs participated in face-to-face, structured, interviews using open-ended questions to contribute perspectives on health literacy roles and nurse-patient communication. Data analysis consisted of Miles and Huberman's methodology to code, extract, sort, review, generalize, and examine for themes. Emergent themes and key findings of this study may improve the gap in knowledge regarding ambulatory RN perspectives on health literacy roles and patient communication, as well as more awareness of the term *health literacy*, increased formal training on the concepts of health literacy, and techniques to formally assess patients' understanding of health information. An opportunity exists to bridge the gap between RN knowledge of health literacy roles and patient communication. Positive social change implications for health services include promoting RN health literacy roles and strategies for effective communication to promote patient behavior changes for optimal wellness.

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Dedication

I dedicate my dissertation to all members of the American Academy of Ambulatory Care Nursing, Sigma Theta Tau International (STTI) Honor Society of Nursing, Phi Pi Chapter of STTI, and the Golden Key International Honor Society, and to the patients we serve.

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Table of Contents

List of Tables

List of Figures

Chapter 1: Introduction to the Study

Introduction

Health literacy includes skills that assist in acquiring and comprehending basic health information (Smith 2015). One-quarter of the U.S. population has below-average written and dialogue literacy skills, which contribute to health disparities (Roter, 2011). Health care professionals can transform health care at by communicating basic health information to patients using words that the patient understands, suggested former U.S. Surgeon General Carmona, a proponent of health literacy awareness (Carmona, 2013). Verbal communication challenges contribute to many health disparities (Bekalu, 2014). Health professionals have identified the urgency to simplify health education printed material, but the need still exists to improve communication with verbal dialogue related to health care (Roter, 2011). The dilemma that I addressed in this study was that health care professionals do not always communicate verbally in ways that patients with limited literacy can understand (Roter, 2011). Therefore, patients may often feel uninformed, frustrated, and unwilling to trust health care providers.

The National Action Plan [NAP] to improve health literacy released in 2010 by the U.S. Department of Health and Human Services (HHS, 2010) is a framework to create a society that is health literate. The guiding principles of the NAP reinforce the patient's right to health information delivered by health care professionals using words that the patient understands (Baur, 2011). Health literacy skills are important for understanding health information, making health care decisions, and reducing errors when taking medications (Smith, 2015; Stock, 2015). Health professionals have a duty to

provide clear communication when discussing health information to patients because improving health literacy provides opportunities to be more engaged in health care decisions (Ivanov, Wallace, Hernandez, & Hyde, 2015). Unfortunately, health professionals overestimate the literacy skills of patients regarding their health (Dickens, Lambert, Cromwell, & Piano, 2013). A need for health literacy exists among the United States (Atcherson, Zraick, & Hadden, 2013). For these reasons, they often may not consider the patient's comprehension of the information.

The topic of this study was ambulatory nurses' perspectives on health literacy roles and patient communication. For optimizing health and wellness, registered nurses (RNs) have a responsibility to provide information to patients using effective communication and language that the patient understands (Baur, 2011; Hallyburton, 2016; Ivanov et al., 2015; Smith, 2015). Many patients have low health literacy and education levels, thereby creating difficulty in understanding health information dialogue to make appropriate health decisions (Ivanov et al., 2015; Wali & Grindrog, 2016). I conducted this study because of the urgency for RNs to understand their roles in health literacy when communicating with patients who lack health literacy skills (Hallyburton, 2016; Smith, 2015). The research findings may build on previous findings related to RN health literacy roles and nurse-patient communication in ambulatory settings (Rondelli, Omery, Crawford, & Johnson, 2014). Implications for possible social change in health services include (a) promoting RN health literacy roles, (b) improving effective communication strategies for patient behavior changes, and (c) promoting health outcomes for optimal wellness.

Given these possible benefits, understanding RN perspectives on health literacy roles and patient communication could identify best practices for promoting optimal wellness among patients. In this chapter, I discuss the background for this study and the gap in existing literature on the subject. I also discuss the problem statement, purpose of the study, and research questions in connection to the identified gap. The nurse role effectiveness model (NREM) was the conceptual framework guiding this study. Information related to the intent for this study follows and provides the foundation for the three research questions for this study. This chapter also includes information on the nature of the study, definitions, assumptions, scope and delimitations, limitations, and significance of this study.

Background

The scope of this study was (a) ambulatory RNs working in direct patient care, (b) health literacy awareness, and (c) nurse-patient communication. Health literacy concepts include a set of skills that assist in the acquisition and comprehension of basic health information (Dickens et al., 2013; Hersh, Salzman, & Snyderman, 2015). Health literacy skills are essential for patients to organize health information and assure health practices are relevant for managing individual health (Massey, Prelip, Calimlim, Quiter, & Glik, 2012). Health literacy is a dynamic process shared between the individual and health care systems (Institute of Medicine [IOM], 2014). Throughout existing literature, it is apparent that a universal definition for *health literacy* is lacking.

Ambulatory RN roles in health literacy involve providing health education, managing chronic conditions, and assisting with medication management. The nurses'

ability to recognize that the patient may be unable to process the information is necessary to promote better health outcomes (Kourkouta & Papathanasiou, 2014). RNs have a critical role in promoting awareness of health literacy among patients during the delivery of patient care and treatment (Dickens et al., 2013; Mastal et al., 2012). Each patient encounter provides an opportunity for the RN to assess and identify health literacy levels among patients.

Researchers have focused on specific patient population management of acute and chronic conditions (Parnell, 2015). Previous researchers have also focused on RNs in hospital settings, health literacy awareness among nurse practitioners and physicians, RN knowledge, and RN skills and practices (Cafiero, 2013; Dickens et al., 2013; Green, Gonzaga, Cohen, & Spagnoletti, 2014b; Parnell, 2015). In one of the first studies to examine hospital RN health literacy skills, Dickens et al. (2013) found that RNs overestimate patients' health literacy skills. In addition, Dickens et al. noted that when patients do not understand the health information the risk for hospital readmissions and poor health outcomes increase. A gap in knowledge and lack of research exist related to ambulatory RN perspectives on their health literacy roles.

Providing health information in a language that the patient understands is essential for communicating information to individuals with limited health literacy. Resources and strategies for communicating health information are available in other formats besides written methods (Rubin, 2012). Technological advances offer the RN tools to enhance patient education experiences by reinforcing the health information using words that the patient understands (Bramhall, 2014; Hallyburton, 2016; Smith,

2015). This study needed to be conducted because RNs have an important role in health literacy and in the delivery of effective nurse-patient communication for optimal wellness.

Problem Statement

RNs play an important role in the advancement of health literacy (Hallyburton, 2016; Parnell, 2015; Smith, 2015). Limited health literacy increases the risk that individuals do not understand health information necessary to manage their health issues (Ivanov et al., 2015; Smith, 2015). Health literacy awareness plays an important role in managing health conditions and improving patient safety (IOM, 2004; Ivanov et al., 2015). The problem that I addressed was RNs roles with health literacy and communicating health information using words that the patient understands, as effective communication is necessary for optimizing health and wellness. The national goals of Health People 2020 reported evidence of consensus that this problem is current, with an overall goal by the government to increase health literacy skills among health care workers. Health literacy objectives include improving health literacy awareness among health care providers and patient understanding (HHS, 2016). These types of goals could encourage health care providers to provide more understandable instructions during patient visits.

Relevancy of the problem was that RNs in ambulatory settings are responsible for providing health education, managing chronic conditions, and assisting with medication management (Rondelli et al., 2014). Significance for addressing health literacy is a nursing imperative that requires the RN to use effective strategies for communicating

health information using terms understood by the patient (Abadie & Smith, 2015; Smith 2015). Health care providers who are not well versed in understanding health literacy barriers among patients contribute to poor patient care outcomes among patients with limited health literacy (Himmelfarb & Hughes, 2011). Ivanov et al. (2015) indicated the importance for RNs to understand their roles in health literacy and that "health literacy is the tool" (para. 2). These factors are relevant during care and may transform the lives of patients.

Health literacy has increasingly become a topic of research interest since the early 1970s when public experts convened a task force to develop strategies to improve population health (IOM, 2004). Based on this importance of health literacy, more studies need conducted to improve the increasing health demands associated with patients' inability to understand health information necessary for health management. Stigma is associated with low health literacy so patients may not always be forthcoming when they do not understand health information (Smith, 2015). Nurses should not rely on the patient's level of education to understand information, because other factors such as culture, age, language, and demographics may deter patient understanding (Smith, 2015). The goal in the nurse-patient encounter is for the nurse to identify the literacy needs of the specific patient and adapt the communication (Kourkouta & Papathanasiou, 2014). Health systems and health care providers may adopt the health literacy universal precautions, as encouraged in the toolkit from the Agency for Healthcare Research and Quality (2011) proposed by Brega et al. (2015). The universal precautions toolkit advocates for providers to communicate with patients using plain language.

Even though the sources are abundant with patient communication, research addressing ambulatory RN health literacy roles, health literacy awareness, and effective patient communication is scarce. Previous researchers have focused on health literacy provider-patient communication in hospital settings, medication adherence, and patient behaviors (Ingram & Ivanov, 2013; Larsson, Salhsten, Segesten, & Plos, 2011). Although, the references (Salter, Brainard, McDaid, & Loke, 2014) illuminated important findings regarding health literacy, a meaningful gap in the current research literature exists related to ambulatory RN perspectives on health literacy roles and effective patient communication. The findings from this study may build on existing research to increase RN understanding of their role in health literacy and nurse-patient communication, therefore supporting the need for the current study.

Purpose of the Study

The purpose of this qualitative study was to examine and describe ambulatory RN perspectives on health literacy roles and patient communication. A qualitative approach lends itself to nursing studies, which are grounded with seminal principles. Qualitative studies explore, clarify, and expand various aspects of life experiences (Sandelwoski, 2009; Sanjari et al., 2014). The purpose of the qualitative method is to obtain a detailed description of an individual' experience without the need for an in-depth level of interpretation (Sandelwoski, 2009). This method was important for my study because of the existing gaps in literature that do not fully explain ambulatory RN health literacy pertaining to communicating health information to patients for optimal wellness.

I examined and described ambulatory RN perspectives on health literacy roles and patient communication. Study participants consisted of RNs working in direct patient care because RNs play a fundamental role in health management by providing health information to patients (Kourkouta & Papathanasiou, 2014; Rondelli et al., 2014). For example, some RNs are responsible for managing patients with health issues such as high blood pressure, high blood sugar levels, and high cholesterol. Existing research overwhelmingly indicates that addressing health literacy is key to improving medications adherence, managing chronic conditions, and patient compliance to health treatment plans (Cutilli & Schaefer, 2011; Smith, 2015; Speros, 2011). RNs working in direct patient care have the opportunity to improve medication and treatment adherence by removing patient barriers associated with limited health literacy.

The phenomenon and concept of interest for this study are ambulatory RN perspectives on health literacy roles and patient communication. RNs may improve understanding of health-related information by adapting communication to meet the needs of the patient (Smith, 2015; Speros, 2011). It is possible that by gaining insights on ambulatory RN health literacy roles and effective communication best practices, patient health outcomes will improve. In the context of health services, researchers have noted that addressing health literacy has widely contributed to improved patient safety and improved health outcomes (Hallyburton, 2016; IOM, 2014; Parnell, 2015; Speros, 2011). To understand this phenomenon, I identified three research questions as the primary focus for this study.

Research Questions

I derived three qualitative questions from the problem statement and purpose of this study to describe RN perspectives on health literacy roles and patient communication:

RQ1: What perspectives do RNs have on their roles in health literacy?

RQ2: What views do RNs have on skills and strategies to communicate health information effectively to their patients?

RQ3: What challenges do RNs have recognizing whether the patient understands health information?

In upcoming chapters, I align these three research questions with the specific interview questions related to the conceptual framework and prominent themes of this study. It was important that RNs understand that health literacy is an issue that affects health outcomes.

Conceptual Framework

I developed a conceptual framework for this study centered on the NREM. The phenomenon that grounded the study was ambulatory RNs working in direct patient care. Ambulatory care nursing encompasses all services provided in outpatient offices, clinics, and surgery centers (Mastal et al., 2012). In ambulatory care, the nursing encounters are face-to-face, telephonic, and through electronic medium (Mastal et al., 2012). RNs are effective to assess patients for health literacy skills while providing health information. Overwhelming support exists to improve RNs health literacy skills in the nursing literature (McCune, 2014; Mullen & Kothe, 2010; Smith, 2015).

In Figure 1, I illustrated the conceptual framework of this qualitative study with open-ended interviews using Miles and Huberman's methodology. As noted in the diagram, the study is centered on the NREM model to investigate the roles of nurses with health literacy, explore nurse communication oral skills, and examine nurses' challenges with health communication.

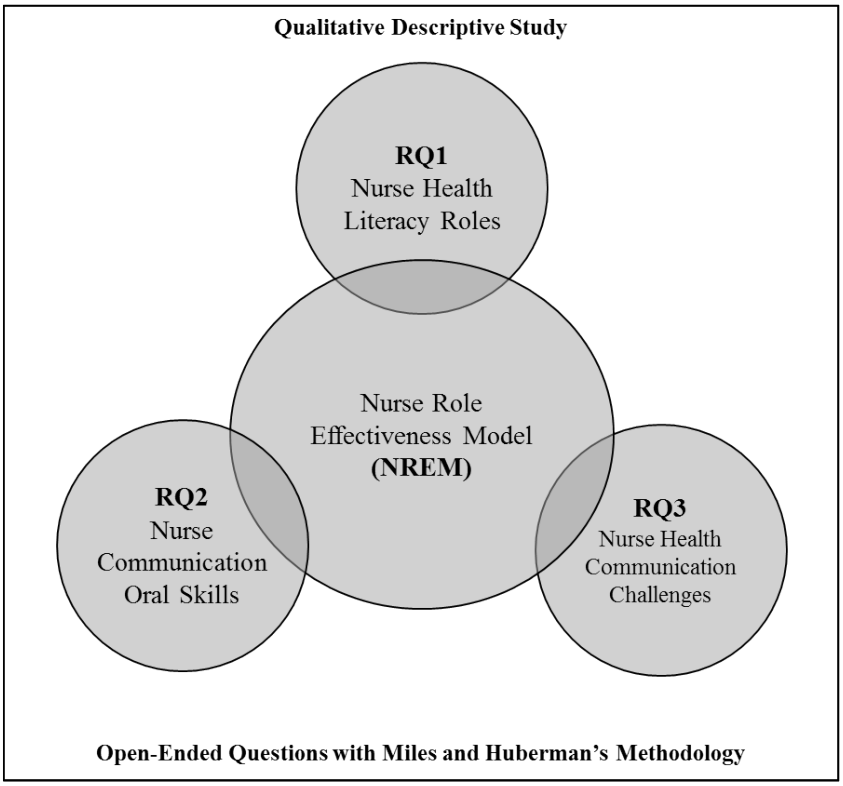

Figure 1. Conceptual framework of the study.

A conceptual framework provides a lens for key concepts and variables, and it explains how they are related (Vaismoradi, Turunen, & Bondas, 2013). The theoretical and conceptual framework further provides boundaries in qualitative research (Green, 2014a). The conceptual lens for the study centered on NREM, a model developed by Sidani and Irvine (1998) and influenced by the Donebedian model of quality care. The

NREM consists of structure, process, and outcome variables. The NREM correlates nursing services with patient outcomes using structure, process, and outcome variables. I provide detail in Chapter 3 on the data collection process with semi structured interviews and open-ended questions using Miles and Huberman methodology for data analysis.

The logical connection among key elements in my study related to nursing knowledge and experience. Processes are the activities, or the function of the nurse, in an independent, interdependent, or dependent role (Rondelli et al., 2014). In the NREM, outcomes represent patient goals attained because of the nurse's role (Doran, Sidani, Keatings, and Doidge, 2002; Rondelli et al., 2014). In previous studies, Doran et al. (2002) used the NREM to explain the associations between nursing roles in health services and patient outcomes. Rondelli et al. (2014) conducted studies applying the NREM to nurses' self-reported activities in ambulatory care and concluded that the top patient-services are patient assessments, health promotion activities, message management, and patient triage. These factors supported the importance of RN roles for optimal wellness.

NREM was the anchor model for my study. I expanded on NREM seminal principles to examine perspectives that RNs have on health literacy roles (nurse-structure), views that RNs have on skills and strategies to communicate health information effectively to their patients, and factors that RNs identify as contributing to health communication challenges (nurse role-process). In this study, RNs did not provide feedback on patient outcomes. In Chapter 2, I more thoroughly explain the logical connections among key elements of the framework in Chapter 2.

I developed an interview protocol (Appendix D) to ensure a systematic process for obtaining data. For validity purposes, a team of subject matter experts (SMEs) including ambulatory, quality assurance, and staff development RNs reviewed and approved my list of interview questions to be in alignment and scope with my problem statement, research questions, and other content of my study. I describe this methodology in more detail in Chapter 3.

Nature of the Study

My rationale for selecting a qualitative approach was that the design was not rigid; rather, it was flexible. The qualitative method of inquiry provides the researcher a method to summarize and explore contextual beliefs and behaviors by individuals who had the experience (Sandelwoski, 2009; Vaismoradi et al., 2013). The nursing profession has been using qualitative methods since approximately 1970 to examine, describe, and explain phenomena and to expound on nursing theory (Sanjari et al., 2014). Qualitative studies provide the researcher with the framework to present well-founded information.

The key phenomenon for investigation in my study was ambulatory care RNs working in direct patient care because of their significant role in communicating health information to patients. When working with patients with low literacy levels, the RN should assess the patient's learning barriers and adapt communication to promote effective learning (Abadie & Smith, 2013; Himmelfarb & Hughes, 2011; Smith, 2015). Health literacy is problematic and associated with health disparities (Ha & Lopez, 2014). For these reasons, it is vital for RNs to understand their role in health literacy when communicating with patients.

Data collection for this qualitative study included face-to-face interviews using semi-structured, open-ended questions to attain ambulatory RNs insights about their role in health literacy and patient communication. Participants for the study included RNs in an ambulatory setting. Ambulatory RNs provided information relevant to the study because of their knowledge and experience. I recorded and transcribed the interview responses in a document and uploaded into NVivo 10 software program for organization and data storage because NVivo 10 software facilitates and adds rigor for organization by increasing accuracy of data attributes (Lee & Onwuegbuzie, 2011).

Data analysis for this qualitative study replicated Miles and Huberman's qualitative analysis using a six-step analytical approach including coding data, recording themes, sorting similarities, identifying differences, deriving generalizations, and examining results (Neergard, Olesen, Andersen, & Sondergaard, 2009). The six-step analytical process works well with nursing studies because it allows the researcher to remain close to the data (Clarke & Braun, 2013; Sandelwoski & Leeman 2012). Based on the evidence in the literature, the replication of Miles and Huberman's data analysis plan seemed best suited for this research regarding nursing perspectives and their role in health literacy and patient communication.

Definitions

In this brief overview, I provide operational definitions that I used in the study. It is possible that for some terms listed, no universal definition exists. However, these definitions are helpful and come from reliable sources.

Ambulatory care nursing: Ambulatory care nursing encompasses all services provided in outpatient offices: doctor's office, nurse clinic, infusion center, urgent care, diagnostic center, outpatient specialty departments, schools, health maintenance organizations, and surgery centers. The nursing encounters are face-to-face, telephonic, and through electronic medium (Mastal et al., 2012).

Graph literacy: Refers to the ability in health settings to read and understand graphical representations of health-related information (Rodriguez et al., 2013).

Health care provider: A licensed professional or entity that provides health care services (U.S. Bureau of Labor Statistics [BLS], 2014).

Health literacy: An individuals' capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions (IOM, 2004).

Level I or functional literacy: Individuals with basic reading and comprehension skills for making health care decisions (Nutbeam, 2006; Rowlands, 2014).

Level II or communicative/interactive literacy: Individuals with higher functional cognitive skills that process and apply new information in making their health decisions (Nutbeam, 2006; Rowlands, 2014).

Level III or critical literacy: Individuals who possess skills necessary to fully analyze health information and make decisions based on information presented generally; more cognitively advanced (Nutbeam, 2006; Rowlands; 2014).

Literacy: Individual reading and comprehension of printed and written materials (Bostock & Steptoe, 2012).

Numeracy: The ability to understand, process, and use numbers in everyday activities. In the context of health, *numeracy* refers to the ability to interpret and calculate medication doses appropriately (Rodriguez et al., 2013).

Patient centric: "Responsive to the needs, values, and expressed preferences of the individual patient" (Committee on Quality Care in America, IOM, 2001, p. 48).

Registered nurse (*RN*): An individual licensed as a registered nurse by the State Board of Nursing, the RN is accountable for all nursing services and patient outcomes (BLS, 2014).

Teach-back: A communication strategy used to check if the patient understands health information that the health care professional explained (AHRQ, 2015; Paasche-Orlow, 2011).

Assumptions

I employed techniques from Rubin and Rubin's (2005) responsive interview model to manage, design, plan, and ask interview questions to obtain truthful and complete responses. Participants provided information using semistructured, open-ended questions. The generalization was assumed the limited sample size from the RNs working in southern California where I reside would signify meaningful data for all RNs. Ambulatory care RN participants working in direct patient care were purposefully selected to collect their perspectives on health literacy roles and patient communication.

Scope and Delimitations

The specific aspects of the research problem were RNs health literacy roles when communicating oral and written health information to their patients. To guide my study, I

used an exploratory qualitative approach to describe ambulatory care RN perspectives on health literacy roles and patient communication. Because RNs in ambulatory care are instrumental in disseminating health information to a wide audience in various outpatient services, it was important to understand RN perspectives on health literacy roles and patient communication because adequate levels of health literacy are crucial to patients understanding of health information that they use to make health care decisions. For example, individuals with *hypertension* must understand the term and, therefore, nurses should explain the condition as "high blood pressure," stress the importance of regular blood pressure monitoring, and explain the importance of taking medications as directed.

The boundaries of the study were RNs working in direct patient care in southern California ambulatory settings. Excluded from this study were advanced nurse practitioners because they generally function in a different role. Nurse practitioners in ambulatory care often have similar schedules and duties as those of physicians in primary care. Licensed vocational nurses, medical office assistants, and technicians were outside the scope of this study and were excluded.

The scope of this qualitative research study was to describe RN perspectives on health literacy roles and patient communication. Providing clear descriptions and characteristics of the participants selected allow the reader to decide whether the results are transferable (Elo et al., 2014). However, the study's small sample size and purposive sample may limit generalization. I reported results with contextual descriptions of participant responses reported systematically for potential transferability.

Limitations

Limitations of this qualitative study included my financial resources as the researcher and honesty among the participants, as well as my and the participants' time constraints. In addition, transferability may be limited because the 15 participants may not represent the views of all ambulatory RNs in southern California.

Biases that could influence the study outcomes included the RNs and my personal biases related to RN health literacy roles and patient communication in the scope of working with patients with health literacy challenges. I observed the parameters identified within the scope of this study as a reasonable measure to address limitations and dependability. I adhered to reasonable measures within the ambulatory care work environment without recruiting any participants for whom I am responsible for direct supervision. To reduce potential validity threats posed by the collection of information, I did not collect data from any participants from my department.

Significance

The significance of this study is that ambulatory RNs perspectives on their roles with health literacy and patient communication may improve health outcomes and optimal wellness. This study is important because more than 70% of nurses completed their nursing education before 1999, when nursing education did not include health literacy training (Dickens et al., 2013, p. 67). Individuals with inadequate health literacy have problems understanding their chronic disease, which contributes to confusion regarding the health information that they use to make health care decisions (IOM, 2014). Although no exact numbers, approximately one third of Americans have low heath

literacy skills (Stagliano & Wallace, 2013). Potential contributions of the study that advance knowledge in the discipline included an understanding of ambulatory RN perspectives on health literacy roles and patient communication.

Despite numerous attempts to improve health literacy awareness, health care providers may not have adequate training to recognize patients with low health literacy skills and the challenges those patients may encounter in health care settings (Smith, 2015). Limited health literacy is a patient health risk that nurses can improve through effective communication (Smith, 2015). Researchers suggest that patients who do not have a clear understanding of the available resources are more likely to make poor health-related choices, and these poor choices ultimately contribute to high health care costs (Berkman, Sheridan, Donahue, Halpern, & Crotty, 2011; IOM, 2014). Recent researchers (Harrington & Valerio, 2014; Himmelfarb & Hughes, 2011) have linked certain behaviors with low health literacy, failure to complete medical forms, not following medical treatment plans, missing or rescheduling medical appointments, asking no questions, stating that they forgot their glasses, or being passive. Patients with limited health literacy encounter many barriers in health systems and are often too embarrassed to ask for assistance.

This study may provide additional information on RN health literacy roles in communicating health information to patients, because these are necessary elements of effective communication needed for improving patient safety (IOM, 2014). RNs play an important role in assessing patient needs and providing health information to patients. Therefore, RN perspectives on health literacy roles are important. The implication for

positive social change in ambulatory services was increasing health literacy awareness, promoting RN understanding of health literacy roles, and improving nurse-patient communication in every patient encounter. In the health services environment, addressing health literacy contributes widely to better health outcomes.

Summary

I noted that health literacy was a public problem and shared by individuals, society, and health service providers (Hallyburton, 2016; IOM, 2014). The current health system is challenging and requires individuals to be proficient in reading, writing, processing medical information, and participating in informed health care decisions (Ivanov et al., 2015). The failure for patients to understand medical information may lead to health inequities and poor outcomes (Chervin, Cliff, Woods, Krause, & Lee, 2012: IOM, 2014). RNs in ambulatory services play a significant role in health promotion activities and disseminating health information. It is important to understand RN perspectives on health literacy roles and patient communication in ambulatory settings. In Chapter 2, I discuss the conceptual framework, synthesis of the literature, and key concepts related to this study.

Chapter 2: Literature Review

Introduction

Examining RN roles in ambulatory care may help explain concerns regarding health literacy barriers of patients. The problem that I addressed in this study was RNs roles in health literacy and communicating health information using words that the patient understands, because these are necessary links needed for optimizing health. RNs can help mitigate barriers associated with limited health literacy (Smith, 2015) by tapering the delivery of information to meet the patient's learning needs. The purpose of this study was to explore and describe ambulatory RN perspectives on health literacy roles and patient communication.

Mounting information directly links health literacy, health disparities, and poor health outcomes (IOM, 2014; Ivanov et al., 2015). Patients with low health literacy are reluctant to engage in making health care decisions and more than one third of U.S. adults have below basic health literacy skills, as noted by Harrington and Valerio (2014). This high number implies that understanding directions for managing health issues are problematic. Increasing patient engagement begins with changing the current approach to patient management (Koh, Brach, Harris, & Parchman, 2013) so that from the onset of patient care, health care workers assume that the patient may not fully understand the health information. Health care professionals should incorporate strategies in patient-provider communication (Green et al., 2014b; Koh et al, 2013) to ensure that the patient understands the health information. RNs in ambulatory care are the major providers of

health information. Therefore, it is important to understand RN perspectives on health literacy roles and patient communication.

In this chapter, I provide additional information on the complexity of health literacy phenomenon. This chapter also includes the literature search strategy, as well as the theoretical and conceptual framework concepts. Furthermore, this chapter includes the results of the current health literacy literature related to patient-provider communication, associated barriers, and raising health literacy awareness. Last, I address the themes in literature in the summary and conclusion.

Literature Search Strategy

I conducted the literature review by accessing the Walden University library. The iterative search process for this study was based on various words taken from the study questions using multiple searches performed using CINAHL, MEDLINE, ProQuest, Ovid Nursing Journal, and Nursing and Allied Health source databases. I used Google and Google Scholar to locate information from government agencies. Initial search terms included *literacy*, *health*, *ambulatory services*, *nurses*, and *health literacy.* The initial words did not produce sufficient articles for this research; therefore, I expanded the keywords to include *patient communication, health care providers, health promotion, primary care, health literacy assessments*, *health literacy instruments, functional health literacy*, *critical health literacy, numeracy*, *health literacy universal precautions*, *teach-back methods,* and *patient advocacy.*

The purpose of the literature review was to seek information about nurses' perspectives on health literacy roles and patient communication and to determine whether

gaps in the literature exist. I searched all keywords independently and in inclusive word combinations to assist with obtaining information related to the research questions:

RQ1: What perspectives do RNs have on their roles in health literacy?

RQ2: What views do RNs have on skills and strategies to communicate health information effectively to their patients?

RQ3: What challenges do RNs have recognizing whether the patient understands health information?

The literature review included 97 documents from journal articles, books, government reports, provider resources for providing consumer information for limited health literacy consumers, encyclopedic resource, and dissertation from 2011–2016. In addition, the literature review included a journal resource from 2000 addressing qualitative studies a governmental agency seminal report from 1992 that addressed measuring adult health literacy, and the IOM 2004 seminal report about health literacy. All articles and reports retrieved were in English. The organization of this review progressed from conceptual framework, searching literacy definitions, health care delivery systems, policy initiatives, provider-patient communication and ambulatory care.

The literature search yielded limited information about patient literacy levels identified by RNs when they are providing health information or when they are assisting patients with management of health issues. There were no studies on ambulatory RNs perspectives on health literacy roles and patient communication in ambulatory settings. Nevertheless, I used the information from previous studies dealing with communication between the patient and provider to expand on the importance of clear communication

using words that the patient understands. Understanding RN perspectives on their roles in health literacy is important because the words that they use to explain health information is likely to affect the way the patient makes decisions about their health (American Nurses Association [ANA], 2012; Green et al., 2014b). A discussion of how the conceptual framework will guide the study follows.

Conceptual Framework

Health literacy is a complex concept. As discussed in Chapter 1, the conceptual framework for this study was the NREM. A conceptual framework provides an explanation of the key concepts, variables and comparison of relation (Maxwell, 2013). The Donebedian model of quality care suggests a structure-process-outcome that identifies nurses' role in delivery of health care and links it to specific patient outcomes and cost of service in a hospital setting (Donabedian, 1997). The structure-process-outcome quality of care model developed by Donebedian influenced the design and framework to produce the NREM (Sidani & Irvine, 1998). The NREM seemed best suited as a seminal model to study the roles of health literacy among nurses compared with their communication skills and challenges.

In previous studies, researchers have utilized the NREM to examine the contribution of inpatient nursing sensitive patient outcomes in the context of health services (Doran et al., 2002). The nurse clinical experience (structure) and the nurse-patient communication (process) have significant effects on improved patient activities of daily living (outcomes) reported Doran et al. (2002). In another study, Amaral, Fereira, Cardoso, and Vidinha (2014) reported that improved patient health outcomes associated

with several variables including staffing ratios, nurse experience, nurse-physician relationships, health care environment and nurse role function. Based on this evidence, I have centered the research for this study on the NREM for optimal patient care and outcomes.

In this study, I examined nurse-patient communication as a variable of the structure process. I will not examine the patient outcomes. For this study, I considered the RN as a structure with education, knowledge and experience. I defined processes as activities or the function of the nurse in an independent, interdependent, or dependent role as recommended by Doran et al., (2002) and Rondelli et al., (2014). In Figure 2, I depicted the conceptual framework for the NREM as a guide to explore and describe RN perspectives on health literacy roles.

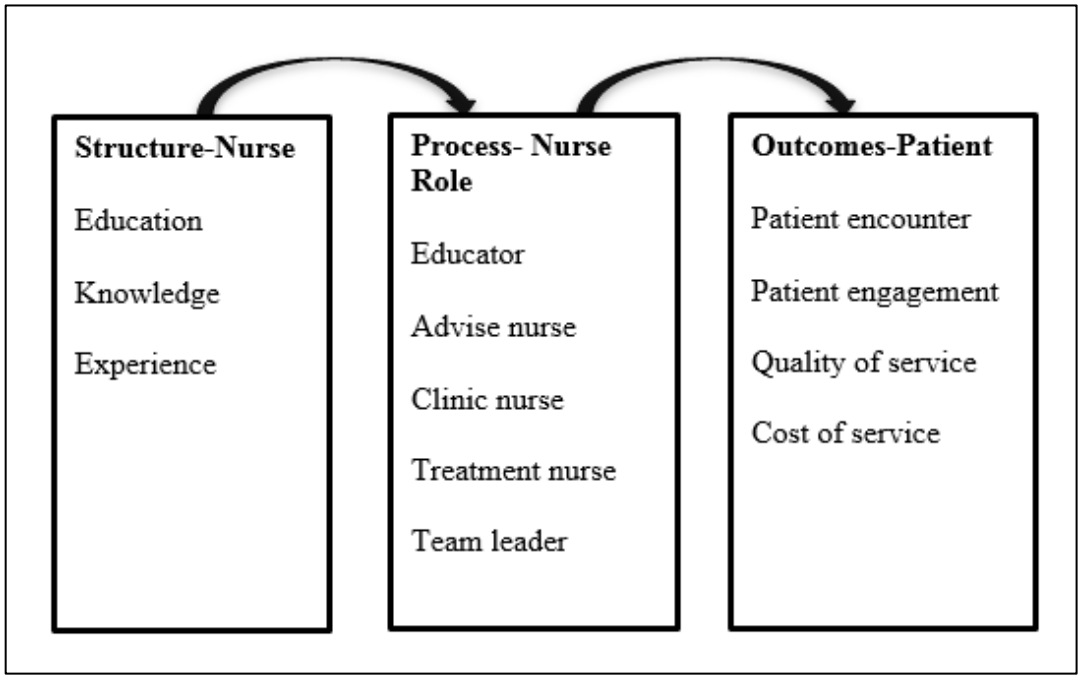

Figure 2. Nurse role effectiveness model.

More recently, researchers (Rondelli et al., 2014) have applied the NREM model to examine primary care and specialty RN self-reported activities and patient outcomes in ambulatory care. The study was the first of its kind to examine ambulatory RNs self-reported performance measures and clinical patient outcomes. In that study, RNs reported that patient assessment, message management, and patient triage were primary functions of their role. Per Rondelli et al. (2014), the findings supported previous works that ambulatory RNs are dealing with more complex patients and by their role RNs influence health outcomes. Per Rondelli et al. (2014), this study benefits from this framework as the NREM model of quality care demonstrates how structural variables examine nurse roles, nursing activities, and patient outcomes. Hence, this model served as a good model for this study.

Literature Review Related to Key Concepts

Key concepts for this literature review were public health, provider knowledge and awareness on limited health literacy, ambulatory nursing roles, and nurse-patient communication. RNs provide a wide array of services including care coordination, health promotion, health education, and patient advocacy (Mastal et al, 2012). Clinicians skilled in understanding health literacy are more perceptive of the patient needs notes McCune (2014) and that improves the quality of patient care. There is no agreement on the best approach to educate health care workers about health literacy.

Public Health

Patient Protection and Affordable Care Act in 2010 also known as the Affordable Care Act (ACA) revamped the health care system in the United States. The ACA requires

all legal residents to have health insurance. Koh et al. (2012) found that our current health care system is a challenge for most individuals to navigate and suggest that the current focus is on providing access, cost containment and, quality improvement. A focus for improving health care access, costs and quality of service should include recognition of health literacy barriers notes Koh et al. (2012). Similarly, Sentell (2012) noted that limited health literacy contributes to poor health outcomes, specifically for individual's misunderstanding basic health information. This study explored nurse perspectives on their roles with health literacy and patient communication.

Health care providers and health care organizations share the responsibility to neutralize the effects of health literacy deficits (IOM, 2014). As early as 2004, the IOM called for health literacy reform on behalf of health professionals, educators, community groups, government agencies, and educators. Health literacy is a silent epidemic (IOM, 2014), not widely understood, but research is mounting linking health literacy and health care disparities. Increasing health literacy awareness in health services and in the community will lessen the problems with limited health literacy (IOM, 2014). Several federal agencies have responded to the call by introducing policy initiatives that provide consumers additional resources aimed at reducing the gap between literate and low-literate populations in health care.

Health literacy lacks a universal definition notes Berkman et al. (2014). The IOM (2004) views health literacy as a dynamic process with unique characteristics for each individual and defines it as an "individuals' capacity to obtain, process and understand basic health information and services needed to make appropriate health decisions" (p.

32). Individuals who have basic reading, writing, and listening skills are functional health literate (Nutbeam, 2006). In Table 1, I listed common definitions of health literacy cited by researchers.

Table 1

Health Literacy Definitions

Source	Definition
WHO	The cognitive and social skills which determine the motivation and ability of the individuals to gain access to understand and use information in ways that promote and maintain good health.
AMA (2015)	The constellation of skills, including the ability to perform basis reading and numeral tasks required to function in a health care environment.
Nutbeam (2006)	The personal, cognitive and social skills that determine the ability of individuals to gain access to, understand, and use information to promote and maintain good health.
IOM (2004)	The individuals' capacity to obtain, process and understand basic health information and services needed to make appropriate health decisions.
Kickbusch, Wait, & Maag (2005)	The ability to make sound health decision(s) in the context of everyday life-at home, in the community, at the workplace, the health care system, the marketplace and the political arena. It is a critical empowerment strategy to increase people's control over health, ability to seek out information and ability to take responsibility.
Zarcadiikasm Okeasabt, & Greer (2003, 2005, 2006)	The wide range of skills, and competencies that people develop to seek out, comprehend, evaluate and use health information and concepts to make informed choices, reduce health risk and increased quality of life.
Paasche-Orlow (2011)	An individual's possession of skills for making health decisions and association with tasks performed.

Abbreviations. WHO, World Health Organization; AMA, American Medical Association; IOM, Institute of Medicine.

Note. From "Health Literacy and Public Health: A Systematic Review and Integration of Definitions and Models" by Sørensen et al. (2012). Reprinted with permission.

The various definitions for health literacy were important to consider when exploring nurse perspectives on their role with health literacy and patient communication for optimal wellness. Individuals with more advanced literacy skills use their knowledge to seek more health information and interact with their health care providers per Nutbeam (2006). Individuals with more advanced cognitive skills are more likely to obtain, examine and make health care decisions that affect their lives and are critical health literate (Nutbeam, 2006). For these reasons, it was important to explore nurse roles in health literacy and patient communication to assure optimal wellness.

In 2003, National Adult Assessment Literacy (NAAL) conducted a follow-up survey that included health literacy measures. The report found that 77 million people have difficulty with obtaining, processing and understanding basic health information (National Center for Education Statistics Association [NCESA], 2015). The NCESA published the findings of the first comprehensive NAAL survey conducted in 1992 defining literacy as the ability to "use printed and written information to function in society, to achieve one's goals, and to develop one's knowledge and potential" (NCESA, 2015, p.2). The NAAL survey measured literacy rates for adults defined as 16 years or older. The report concluded that more than 90 million people did not have the literacy skills required to be fully functional in current society (IOM, 2004). The report also found that an additional 50 million people are functionally literate, but they often encounter problems with understanding the context of printed material (IOM, 2014; NCESA, 2015). The 1992 NAAL seminal report did not measure health literacy; however, researchers noted that the data suggests that literacy is a precursor to health

literacy and that failure to address the problem increases health care costs associated with poor health outcomes.

Public leaders developed the NAP to Improve Health Literacy (HHS, 2010) to support public policy and it mandates that all governmental organizations provide information in terms that the average adult can understand. Legislation decided the action plan would reinforce that most adults cannot use health information in the way that health care systems provide. The framework for the action plan seeks to link all health information in a format that adults with low health literacy can use. The action plan seeks to promote improved health and quality of life for more people.

Health Literacy

In 1974, public school officials used the term health literacy to advocate for health education standards. Interest in the concept did not gain momentum until after the large-scale survey published by National Assessment of Adult Literacy (NAAL) in 1992. The NAAL marked the first time the U.S. measured health literacy, and the results noted that almost 90 million adults were reading at an eighth-grade level or below. The NAAL report was instrumental in describing that many adults lacked the ability to understand information needed to make health care decisions.

Evident in the literature review is the complexity of health literacy and the current complexities of health care systems. The lack of agreement about what constitutes health literacy is a system problem suggests Sykes, Wills, Rowlands and Popple (2013). Compounding the problem is the ongoing debate about the best approach for identifying and addressing health literacy.

For example, an individual's ability to describe symptoms or health problems will assist their health care provider in making a correct diagnosis. It is important that all health care providers understand barriers related to patients and health literacy, and that all providers approach every patient interaction with the mindset that the patient does not understand medical terminology. Individuals develop literacy skills through informal and formal education. Simultaneous psychological and cultural factors reinforce an individual's ability to use skills. Researchers (Stagliano & Wallace, 2013; Sykes et al., 2013) agree health professionals may determine the fluency of individual health literacy by the effectiveness of how good individuals express themselves. In Figure 3, I illustrated factors that influence literacy and development of health literacy skills as described by Parker and Ratzan (2012).

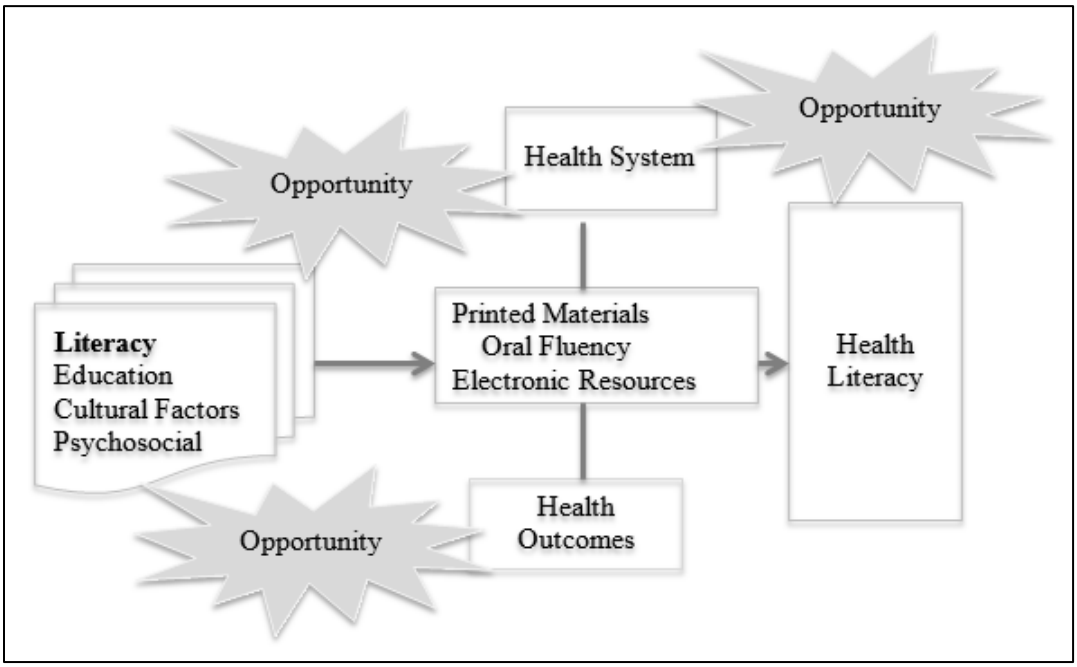

Figure 3. Health literacy skill development.

There is growing concern that clinicians are labeling patients as non-compliant to medications; non-compliance may be due to a lack of understanding on the purpose of the medication or a misunderstanding on taking the medications (Loueng, Fitz, Maack, & Miller, 2015). The IOM (2014) and Mackert et al. (2014) posit that there is a link between limited health literacy, health inequities, and poor health outcomes. Assessment tools to identify patients with limited health literacy are necessary for improving nurse-patient communication (Hallyburton, 2016). Chinn and McCarthy (2012) advocate the importance for developing a tool to measure functional, communicative and critical health literacy in primary care settings. There is no agreement on what is the best tool to use for assessing health literacy.

Ambulatory Nursing Roles

Ambulatory nursing is one of the largest multi-specialty nursing practices in the public and private sector. RNs working in ambulatory care settings have specialized training specific to their role and function within the organization (Mastal et al., 2012). Likewise, Gazmarian (2011) reported that ambulatory RNs specialize in focused and rapid, unpredictable assessments of patients in a considerably short span of time over the phone or in person. Nurses working in ambulatory care are strong patient advocates (Mastal et al, 2012) and provide high-quality patient care. Per Mastal et al. (2012) and Rondelli et al. (2014), the most common activities for ambulatory nurses include practices specific to their role such as:

- Multiple tasking, care coordinating, and disseminating health information.
- Administering immunizations.

- Patient evaluating for home blood sugar monitor.
- Coordinating of patient care from outpatient to inpatient placement.
- Assuring continuity of patient care for dressing changes and wound management.
- Educating family and patient with treatment of administering self-injections.

Researchers (Malazy, Sanjiri, Peirnani, & Mohajeri-Tehrani, 2012) have reported similar activities specific for nurse roles that include health promotion, disease prevention, patient care, and patient education for treatment compliance. Malazy et al. (2012) explained that nurses as educators, caregivers, consultants and patient advocates play a vital role in improving patient outcomes. Based upon the research, the role of nurses with health literacy in ambulatory care was significant for patient communication and optimal wellness.

Rondelli et al. (2014) conducted an exploratory study on ambulatory RNs self-reported activities and outcomes. In this small study, 187 participants self-reported specific role duties such as patient-assessments, message management advice, patient triage, and health promotion activities (Rondelli et al., 2014). Many of the RNs self-reported that they work in clinics in independent, dependent and interdependent roles (Rondelli et al., 2014) this is like RN roles described by Mastel et al. (2012). To date, the literature search did not yield any studies related to RNs health literacy roles in ambulatory settings. There are calls for RNs to understand health literacy (Smith, 2015) and for RNs to assess patient literacy levels (Abadie & Smith, 2013). This imperative

presented an opportunity to examine ambulatory RNs perspectives on health literacy roles and patient communication.

Nurse-Patient Communication

Nurses, in general, are responsible for providing health information and education to patients in their care. Health promotion, patient education, follow-up treatment, and care coordination are all nursing responsibilities that contribute to better health outcomes (Mastal et al., 2012). Communication between the nurse-patient must be clear notes Reddick and Holland (2015) to ensure there are no errors that could compromise patient safety. Dickens et al. (2013) conducted a study comparing nursing estimates of patient health literacy against the patients' health literacy using instrument tools to measure basic life literacy levels of patients. The nurses in the study all worked as in-patient hospital nurses. Dickens et al. (2013) concluded that 68 percent of the nurses overestimated health literacy levels as appropriate whereas, patient screening showed that only 22 percent of the patients had adequate literacy levels. Based on these statistics, the role of nursing with health literacy was significant in an ambulatory setting.

Although this study did not include ambulatory care nurses, the approach was meaningful in that it supported findings from an earlier study conducted by Macabasco-O'Connell and Fry-Bowers (2011) that nurses lacked an understanding in health literacy levels. Nursing communication explains Speros (2011) must incorporate evidence-based strategies that optimize the patient's health and wellness. Effective nurse-patient communication is a two-way process in which the sender and receiver actively participate

in exchanging information in words and contextual cues understood by the sender and receiver.

Implicit in the ANA communication standards are that RNs are responsible for ensuring that patients obtain, process, and understand health information necessary for optimal health and wellness. This is important because more than a third of adults or about 80 million have limited health literacy skills (Koh et al., 2012) and 24 million Americans are not proficient in English (Koh et al., 2012). In Figure 4, I have listed the standards for nurse-patient communication in compliance with the ANA Scope and Standards of Professional Nursing Practice in Communication.

Standard 11: Nursing Scope and Standards of Professional Nursing Practice in Communication from the American Nurses Association

- Assess communication format preferences of healthcare consumers, families, and colleagues.
- Assess her or his own communication skills in encounter with healthcare consumers, families, and colleagues.
- Seeks continuous improvement of communication and conflict resolution skills.
- Conveys information to healthcare consumers, families, the interprofessional team, and others in communication formats that promote accuracy.
- Questions the rationale supporting care processes and decisions when they do not appear to be in the best interest of the patient.
- Discloses observations or concerns related to hazards and errors in care or the practice environment to the appropriate level.
- Maintains communication with other providers to minimize risks associated with transfers and transition in care delivery.
- Contributes her or his own professional perspectives in discussions with the interprofessional team.

Figure 4. Nurse-patient communication standards from the ANA (2010). Nursing Scope and Standards of Professional Nursing Practice, p.54. Reprinted with permission (Appendix G).

In a study conducted by Wong et al. (2014) with a sample population of 291 limited health literacy patients the researchers concluded that a third the of patients had difficulty with print materials. Harrington and Valerio (2014) reported that patients only understand and recall 50 percent of information discussed and that patients with limited health literacy do not seek additional information nor do they ask questions. Multiple studies (Bramhall, 2014; Smith, 2015) supported nurse-patient communication using words that the patient understands as necessary for significantly improving health outcomes. Based upon the literature, it was apparent nurse roles with health literacy and patient communications are critical for optimal wellness.

Strategies for improving nurse-patient communication (Green et al., 2014b) include: (1) using plain language or words understood by the patient; (2) teaching using "chunks of information" and stopping to confirm using "teach-back" method; (3) increasing patient participation by using open-ended questions; and lastly, (4) providing culturally appropriate written materials that reinforce health information. RNs should have access to non-printed materials that aid in reinforcing health information.

In an exploratory study to support effective nursing communication, O'Hagan et al. (2013) conducted individual interviews and a focus group soliciting information from nurse educators and clinicians. Researchers specifically looked at nurse communication techniques using simulated patients and found that nurses in the study lacked self-awareness (O'Hagan et al., 2013). Although nurse educators and clinicians evaluated the nurses' communication techniques, the findings are important in that they supported the need for more effective communication training for nurses. Nursing communication

encompasses all areas of nursing activities, health promotion, disease management, health education, and improves quality of care (Kourkouta & Papathanasiou, 2014). Based on the evidence in the literature, I noted more training may be critical for nurses to understand their roles with health literacy and patient communication for optimal wellness.

Patient Education

Organizations have aimed to increase health literacy and patient education by health care providers with partnerships for clear health communication coalitions to seek possible improvement of health literacy awareness by enhancing provider-patient communication (American Medical Association [AMA], 2015). There are limited studies on patient education geared toward the role of the health care provider involvement for health systems to increase resources for educating health care providers on this global issue (AMA, 2015; IOM, 2014). Another well- known patient education program developed by the AMA (2015) called "Ask Me 3" promotes better provider-patient communication by encouraging patients to ask three specific questions related to: (1) defining the medical problem; (2) defining what to do; and lastly, (3) understanding why it is important to react. Additionally, the AMA also developed educational tools aimed at increasing awareness of health literacy and improving communication by supporting the use of plain language. Health care organizations, health care providers, and patient advocacy groups receive from these agencies educational kits on health literacy and patient understanding at no charge from AMA foundation.

Patients are less likely to change behaviors if they do not understand how it relates to their health condition (Edwards, Wood, Davis, & Edwards, 2012). Limited health literacy is characteristic of patients who express less interest in their health (Harrington &Valerio, 2014). Patient education and counseling may improve health literacy and adolescent obesity (Chari, Warsh, Ketterer, Hossain, & Sharif, 2014). Patient engagement increases when health care providers use plain language instead of medical terminology to explain health information, per research conducted by DeWalt et al., (2011) and Koh et al. (2013). In a study conducted by Green et al. (2014b), medical residents reported that they often overestimated patients' comprehension. These findings were consistent with research conducted by Harrington and Valerio (2104) exploring provider–patient communication. Physicians have reported overestimation of patient's health literacy in former communication studies but to date there are few studies on how effective nurses are in identifying patients with limited health literacy and providing meaningful health information in terms the patient can understand.

Health Literacy Assessment

The role in health literacy and patient communication among nurses is important especially since challenges exist in assessing the many levels of health literacy that are not practical to measure within a clinic setting. For example, the Test of Functional Health Literacy in Adults (TOFHLA) and the Short Test of Functional Health Literacy in Adults (S-TOFHLA) are common instruments in medical research. The TOFHLA instrument developed by Weiss et al. (2005) measures the knowledge of a patient toward health terminology. Using scenarios patients read several passages and medication labels

to gauge comprehension. The length of the instrument was a limitation when used in primary care. Baker, Williams, Parker & Gazmararian (1999) developed a shorter version of the instrument that reduced testing time to 12 minutes. Researchers have validated the two instrument tools as very effective in identifying limited health literacy skills. Health care administrators, however, have criticized the two tests as not practical and that they take too much time to administer in a primary care setting (Stagliano & Wallace, 2013). Since these tests are not always practical in a clinic setting, nurse perspectives from this study may contribute toward improved patient education techniques.

As another example, the Rapid Estimate of Adult Literacy (REALM) is a shorter health literacy instrument that consists of 125 medical words that individuals are likely to encounter in in education materials. The instrument measures how many medical words the individual can read. Clinicians widely used the instrument but were not always practical to use in clinical settings. Later, they revised the instrument (REALM-R) reducing the number of medical words to 66 thereby, decreasing the time it takes to administer and making it more practical to use in clinic settings. A limitation to this instrument is that it did not provide comprehension or numeracy. Nurse perspectives on their role with health literacy from this study could contribute toward medical vocabulary common for patients.

In addition, the Newest Vital Sign (NVS) is a quick screening tool to identify health literacy in primary care setting (Rowlands, 2014). This tool uses a food nutrition label to assess reading and comprehension. Recent studies have concluded that the NVS is as reliable as other longer instruments for identifying patients with limited health

literacy (Loueng et al., 2015). It has become a widely-used instrument in clinic settings because it is quick to administer. Nurse perspectives from this study could attribute to common examples nutritional awareness of patients and strategies to improve.

As another assessment tool, the Single Item Literacy Screener instrument identifies individuals who require assistance with printed materials. The instrument measures how often individuals ask help to read written health information. This instrument is quick to administer and therefore, practical to use in clinic settings. Additionally, health professionals have reported the SILS to be equally as effective as the S-TOFHLA in identifying limited health literacy individuals (Brice et al., 2014). Nurse perspectives from this study could contribute to strategies to recognize if a patient has limited health literacy with understanding the written documentation and treatment plans provided from the health care plan.

In addition to various assessment tests, researchers are now recommending better screening for health literacy for health care providers to adopt universal health literacy precautions (Hersh et al., 2015). The Agency for Healthcare Research and Quality (2015) along with the AMA also favor adoption of universal health literacy precautions and have developed a toolkit that is available for download for the public and private sector. The toolkit contains 25 resources to enhance provider-patient communication. Health professionals utilize this universal toolkit to promote health literacy awareness and clear communication using words that the patient understands. Hersh (2015) found that providers often overestimate health literacy skills in their patients and that a better approach to managing patients with limited health literacy is to advocate for the adoption

of the universal health literacy approach. In Table 2, I listed some instruments commonly used for assessing health literacy.

Table 2

Instruments for Assessing Health Literacy

Measurement	Tool	Time to administer	Number of items
Reading comprehension and numeracy skills	TOFHLA	22 minutes	3 prose passages, 17 numeracy items
Reading comprehension and numeracy skills	STOFHLA	12 minutes	2 prose passages and 4 numeracy items
Reading comprehension	REALM-R	5 minutes	66 medical terms that the individual reads out loud
Ability to read and apply information using a nutritional label	NVS	3 minutes	6 questions
Identifies individuals who require help with reading health information materials	SILS	1–2 minutes	1 question

Abbreviations. TOFHLA, Test of Functional Health Literacy in Adults; STOFHLA, Short Test of Functional Health Literacy in Adults; REALM-R, Rapid Estimate Of Adult Literacy in Medicine, Revised; NVS, Newest Vital Signs; SILS, Single Item Literacy Screener.

As mentioned, many tools and instruments exist to assess the level of knowledge a patient may or may not have toward health literacy yet not all techniques may be feasible in the clinical setting. For clarification on the application of health literacy for this study, I geared the research toward RN' perspectives of their role with health literacy and communicating with patients in an ambulatory setting for optimal wellness.

Communication Challenges

Recent researchers (Baur, 2011; Coleman, 2011) recommended expanding strategies for addressing limited health literacy to include improving health provider-patient communication skills. Coleman (2011) found that a measurably large gap exists among health providers and nurses in "awareness, knowledge, clinical recognition of low health literacy, and attitudes about patients with low health literacy" (p.71, para. 2). Baur (2011) posited that it is imperative that nurses lead in developing strategies for improving nurse-patient oral communication. Nurses have an obligation to secure visual educational information that reinforces the health information for patients with limited health literacy. Additionally, Baur (2011) noted that nurses are in a good position to make recommendations for selecting appropriate patient written material and to advocate on behalf of the patient for medication labels that use words that the patient understands.

More recently, Lambert and Keogh (2014) noted that nurses need additional training for identifying limited health literacy and for improving nurse-patient communication. Equally important, Harrington and Valerio (2014) noted that most of the information about health literacy is based on patient's literacy levels and numeracy levels and less is known about verbal exchange health literacy (oral communication). Numeracy refers to the skill that individuals use in interpreting information from labels or charts (Stagliano & Wallace, 2013). Researchers reported that to achieve health literacy proficiency that an individual's education, social factors and the capacity to understand the information provided by the health care system are essential (Sykes et al., 2013). Additionally, the IOM (2014) is clear that a full understanding of health literacy among

health care providers and health care delivery systems are integral to improving health-care outcomes globally.

Within the literature review, there existed a need to improve patient communication with nurses, social workers, pharmacists, and physicians. Results from nurse perspectives on their role with health literacy and patient education could contribute toward better opportunities with health literacy training, communication skills, and strategies to identify patients with limited health literacy. Ultimately, the literature review concluded a need to improvement for provider-patient communication. For this study, I specifically geared the research toward improved nurse communication for optimal wellness.

Optimal Wellness

Ambulatory RN perspectives on their roles with health literacy and patient communication for optimal wellness are important. Health care professionals require good communication skills to work successfully for optimal wellness with their patients especially the elderly in clinical settings, per research by Tarbuck (2015). When medical professionals use simplified verbiages to communicate high tech vocabulary, patients develop better rapport, trust, and have trust for better health outcomes (Dean & Street, 2015). Various researchers (Baur, 2011; Coleman, 2011; Himmelfarb & Hughes, 2011) have proven effective communication has affected improvement for optimal wellness. For example, colorectal cancer patients yielded higher success for effectiveness with treatment plans, physical activity, and improvement in patient outcomes from nurse-coordinated care to support the transition and increase follow-up treatment plans per

research by Young, Jorgensen, and Solomon (2015). In another recent example with neurosurgical treatment, good provider-patient communication identified as an important strategy to help patients understand complex medical information and to become more active participants in their own medical care (Meeusen & Porter, 2015). Further, research has proven more success with treatment in anesthetized pediatric patients when health professional provides effective communication to the parents (Feldman, 2015). The goal of this study was to fill the gap in the literature with nursing perspectives that may contribute better strategies for patient communication for optimal wellness in ambulatory settings.

Summary and Conclusions

In summary, health literacy is a multifaceted phenomenon that influences the quality of life and patient health outcomes. The literature search yielded sparse information about ambulatory RN awareness of effective nurse communication when they are providing health information to patients or when they are assisting the patient with self-management of health issues. Provider-patient communication in a language that patients understand is necessary and improves health outcomes (Findley, 2015; IOM, 2014; National Institute of Health, 2015). Understanding RN perspectives on health literacy roles and patient communication is important because the words that they use provide an excellent opportunity for RNs to engage patients in their health care and optimize health outcomes. The information gained from this study may provide the potential to fill gaps in RN health literacy roles and patient communication and make recommendations for improvement.

In this chapter, I introduced health literacy and provided a literature review that focused on understanding health literacy, explored the concept of identifying patients with limited health literacy, and elaborated upon how nurse-patient communication plays an important role in good health outcomes. RNs in ambulatory services are responsibility for providing and promoting understanding of health information. Despite numerous calls for health literacy awareness the literature review illuminated existing research gap related to lack of information on ambulatory RN perspectives on health literacy and patient communication. The information obtained from this qualitative research study will build upon previous studies that seek to understand RN their roles in health literacy in ambulatory settings. In the next chapter, I provided further details on the qualitative research design and rationale for this health literacy study, the role of the researcher, methodology, procedure for the pilot study, issues of trustworthiness, ethical procedure, and summary.

Chapter 3: Research Method

Introduction

The purpose of this study was to examine and describe ambulatory RN perspectives on health literacy and patient communication. In this chapter, I include details on the research design and my role as the researcher. The methodology section includes the selection process of the participants, sites, and sampling methods. The final sections of this chapter include information on pilot study procedures, study instruments, issues of trustworthiness, and ethical procedures, as well as a summary of the research methodology.

Research Design and Rationale

I derived three qualitative research questions from the problem statement and the purpose of this study to examine and explore ambulatory RN perspectives on health literacy roles and patient communication to improve optimal wellness.

RQ1: What perspectives do RNs have on their roles in health literacy?

RQ2: What views do RNs have on skills and strategies to communicate health information effectively to their patients?

RQ3: What challenges do RNs have recognizing whether the patient understands health information?

In this chapter, I further deconstructed the research questions to align with specific survey questions related to the conceptual framework and prominent themes of this study.

The central phenomenon of interest for this study was ambulatory RN working in direct patient care. The central focus of my study was RNs perspectives on health literacy roles and patient communication. Health literacy is a shared responsibility between the consumer and the health care provider (IOM, 2014; Ivanov et al., 2015; Speros, 2011). Health care providers can facilitate the information the patient needs to know by using words that the patient easily understands (Ivanov et al., 2015; Reddick & Holland, 2015). In their roles, RNs assume the responsibility of developing and improving communication skills required in nurse-patient encounters.

The research tradition for this study was qualitative. This type of research tradition is the standard method for straight descriptions of the phenomena (Sandelwoski, 2009). Qualitative studies contribute in various health disciplines to evidence base practices (Sandelwoski & Leeman, 2012). As with other qualitative approaches, researchers (Elo et al., 2014; Sanjari et al., 2014; Vaismoradi et.al, 2013) noted that qualitative studies provide the researcher with the opportunity to look at an event or phenomenon more in-depth from a naturalistic inquiry.

Qualitative studies seek to understand beliefs, knowledge, and behaviors from the participant's perspective (Sandelwoski & Leeman, 2012; Sanjari et al., 2014). Qualitative studies enable the researcher to summarize what individuals say and the effect on others (Vaismoradi et al., 2013). Phenomenology, grounded theory, and ethnography are qualitative studies used in nursing research; however, in the other qualitative methods, the researcher reinterprets data using other terms. Qualitative studies are well suited for research when a "straight description of the phenomenon is the desired outcome"

(Sandelwoski, 2009, p. 334). Qualitative researchers represent information pertaining to the event or phenomenon with words similarly used by the informant (Sandelwoski & Leeman, 2012; Sanjari et al., 2014; Vaismoradi et al., 2013). In qualitative research, scientists view the environment as socially constructed by individual perception(s) and is different from the physical world. As described by Sandelwoski (2009), I listed the major tenets of qualitative studies in Table 3.

Table 3

Qualitative Design

Design issue	Design specifics
Philosophy	Pragmatic, naturalistic inquiry, and may influence other approaches (phenomenology, ethnography, grounded theory)
Sample	Purposeful sampling and maximum variation sampling is especially useful
Data Collection	Semistructured open-ended interviews, individual or focus groups, observations, and review of documents
Analysis	Content analysis using coding systems, data reported describing informants' experiences using low level interpretation, quasi-statistical analysis methods using numbers to summarize data with statistics, and NVivo 10 software works well
Outcomes	Straight description of the data presented and organized to fit data (chronologically, relevance, etc.)

Note: *In Neergard et al. (2009) as proposed by Sandelwoski (2009).*

The philosophical design of qualitative studies may be pragmatic, use a naturalistic inquiry or influenced by other approaches (Elo et al., 2014). The focus groups may use sampling when there is no newer captured information (Sandelwoski, 2009). Data collection may consist of interviews, observations, questionnaires and review of documents (Vaismoradi et al., 2013). Qualitative method works well because the design provides a process for the researcher to develop a comprehensive summary using terms

common to the phenomenon or event (Elo et al., 2014, Sandelwoski, 2009). An advantage of using qualitative method is that the investigator views the phenomenon in its context, whereas, using a quantitative method would entail a narrow hypothesis that relies on closed ended questions (Vaismoradi et al., 2013). For this research study, a qualitative method was the best option for exploring nursing perspectives on their roles in health literacy and patient communication for optimal wellness.

Role of the Researcher

I was the researcher. My role was that of an observer and it included designing the study, developing the instrument, recruiting participants as well as collecting, analyzing, and storing data. Research is a human activity and influenced by the researcher's personal views and life experience (Cha, Fung, & Chien, 2013). During the data collection process, I was an RN working in ambulatory care but I did not supervise the work of the participants. As the researcher, I had no relationship with the participants that could establish power differential over their involvement. I consulted with subject matter experts in ambulatory services and a team advisor for the guidance of instrument development, data review, and data analysis.

I managed my bias primarily by using the systematic data analysis of coding data, a data analysis approach from Neergard et al (2009) as proposed by Miles and Huberman (1994). Organizing data, extracting, reflecting on the data, sorting to identify similar phrases, patterns or themes and includes acknowledging preconceived ideas and setting these ideas aside so that they do not interfere with emergent themes (Vaismoradi et al., 2013). I used NVivo 10 software to store the transcription files. Using NVivo 10 allowed

me as the researcher to upload voice recordings and organize transcription files for easy retrieval while maintaining participant responses as the participant intended them to be. Using NVivo 10 to transcribe, store, and review the raw data mitigated any researcher bias because it helped with differentiating between participant's perspective and that of the researcher.

I completed the National Institute of Health's human research subject training (Appendix E) to ensure protection of human subjects. I also completed web-based health literacy for public health professionals training module (see Appendix I). There are no anticipated ethical dilemmas specific to the self-reported questionnaire because the participants can choose to stop at any time or the participant can complete the interview. I did not provide monetary incentive for the participants due to budget constraints.

Methodology

Participant Selection Logic

The populations identified for this study were RNs working in direct patient care in ambulatory settings. The sampling strategy for this study was to present my study to ambulatory RNs working in direct patient care, post a digital recruitment flyer through Facebook, Twitter, and secure permission to post my flyer at bulletin board at several coffee shops near ambulatory settings. Purposive sampling refers to a sampling method were selected participants provide purposeful information germane to the study (Dudoveskiy, 2015). There is no agreement on sample size for qualitative studies instead the design of the study or by the concept of saturation guide the study (Marshall, Cardon, Poddar, & Fontenot, 2013; Oppong, 2015). A sample size of 5–50 participants may

suffice as noted by Dworkin (2012). I recruited 15 ambulatory care RNs. Smaller sampling sizes in qualitative studies permit the researcher to focus on the missing gap in literature to understand the views of the participants (Marshall et al., 2013). I selected participants based on the following requirements: adult female RNs working full time, part time or per diem, adult male RNs working full time, part time or per diem. Although, I did not target pregnant females for this study, it was possible that a participant was pregnant. The exclusion criteria for this study included nurse managers and RNs in non-patient care services (staff development, human resources, quality improvement, etc.).

Upon approval from the Walden University Institutional Review Board at Walden I launched procedures to identify, contact, and recruit ambulatory RN participants for this study by distributing a recruitment flyer (Appendix B) at local ambulatory centers. I outlined full details of specific procedures in the IRB application. The recruitment flyer contained an explanation of the study and researcher contact information. Additionally, I obtained some participants through social networking sites with network administrator approval from Facebook, LinkedIn, and Twitter using the recruitment flyer.

I based the aim of the study on the relationship between sample size and saturation with sampling strategies specific to the purpose of gathering data for the specific inquiry. Sample sizes in qualitative studies are generally smaller than in quantitative studies (Marshall et al., 2013). Larger samples do not always add to the research topic and the information gathered may be redundant or saturated (Marshall et al., 2013). The nursing profession since the early 1970s has favored qualitative methods to examine and describe health care issues and perceptions (Sanjari et. al, 2014).

Researcher information from previous studies has contributed to the development of nursing knowledge reflected in improved health outcomes.

Data Collection and Instrumentation

As the primary investigator, I was the primary instrument for this research along with the semistructured interview tool (Appendix D). I developed an interview protocol (Appendix D) to ensure a systematic process for obtaining data. For validity purposes, a team of subject matter experts (SME) including ambulatory, quality assurance, and staff development RNs reviewed and approved my list of interview questions to be in alignment and scope with my problem statement, research questions, and other content of my study. Please see Table 4 for interview questions and their alignment with the NREM and research questions.

Table 4

Alignment of the Questions With NREM and Research Questions

Interview question (IQ)	NREM	Research question
IQ 1	Structure	RQ1
IQ 2	Structure	RQ1
IQ 3	Structure	RQ1
IQ 4	Process	RQ2
IQ 5	Process	RQ2
IQ 6	Process	RQ2
IQ 7	Process	RQ3
IQ 8	Process	RQ3
IQ 9	Process	RQ3

Upon approval from Walden IRB, I posted flyers (see Appendix B) in public areas and coffee shops to recruit registered nurses from local ambulatory care facilities.

Each research participant signed an informed consent prior to interviews. Participants selected whether they wished to participate in a face-to-face or phone interview.

Procedures for Pilot Study

Pre-test pilot participants answered interview questions to determine if the questions allowed the researcher to obtain data that answers the research questions. Pilot testing helps the researcher determine any revisions that are necessary before conducting the study (Maxwell, 2013). Two participants participated in the pilot study. Upon approval from the Institutional Review Board (IRB) at Walden University, ambulatory RNs agreed to participate after a presentation of this proposal at a local meeting in southern, California and dissemination of a recruitment flyer (Appendix B). Some participants agreed to participate from the same recruitment flyer used through social networking by Facebook, LinkedIn, and Twitter.

RNs who expressed interest to participate in the research study responded to the recruitment flyer (Appendix B). All research participants completed informed consent. I followed the same data collection and data analysis procedures from the pilot study for the main study reporting the pilot study in Chapter 4, but not incorporating in the results of the main research study. The results from the pilot study indicated no major modifications. If the information from the pilot study had indicated that major modifications, I would have submitted request to the IRB for modifications before proceeding with the main study.

Procedures for Recruitment, Participation, and Data Collection

As previously stated, upon approval from the IRB at Walden University, I recruited the participants for the study with the recruitment flyer (Appendix B). I provided this flyer to RNs at local meetings and posted the flyer in the employee lounge. Recruitment did not occur while the participant was working. This investigator was available to present information about the study to interested individuals or groups. Additionally, I recruited participants by social networking sites Facebook and Twitter using the same recruitment flyer (Appendix B). I provided all participants full details about the purpose of the study, inclusion criteria, and exclusion criteria. I also provided all participants with the primary investigator contact information if the participant needed additional information.

Participation in this study was voluntary and the participant could choose to stop answering questions at any time. I informed participants that there is no compensation for participating in the study. The study included only completed interviews. I obtained participant follow-up information to establish accuracy of the transcribed interview.

Data Analysis Plan

Replicated by Neergard et al. (2009), the data analysis plan for this study used a six-step qualitative analytical approach originally developed by Miles and Huberman including coding data, recording themes, sorting similarities, identifying differences, deriving generalizations, and examining results. The six-step analytical process works well with nursing studies because it allows the researcher to remain close to the data (Clarke & Braun, 2013; Sandelwoski & Leeman 2012). Further, the researcher reviewed

transcripts to devise meaningful data to report for results and conclusions then sorted and classified by related words, sentences or paragraphs and then examined for similarities or differences that revealed patterns or themes. In Table 5, I listed a summary that I replicated from Neergard et al. (2009) as proposed by Miles and Huberman (1994) the six-step analytical process for data analysis for this qualitative study.

Table 5

Analytical Process for Data Analysis in Qualitative Research

Step	Action	Data Analysis Process
1	Coding	Coding data from interview, notes or observation.
2	Extracting	Recording insights and reflection on data.
3	Sorting	Sorting through the data to identify similar phrases, patterns, themes, sequences and, important features
4	Looking	Looking for similarities and differences among the data and extracting it for further consideration and analysis
5	Generalize	Generalizations to that which holds truth for the data
6	Examining	Examine generalizations in the context of what is known

Note: *In Neergard et al. (2009) as proposed by Miles and Huberman (1994).*

Issues of Trustworthiness

Credibility

Potential participants noted credibility of the study through my compliance with the IRB approved data collection process and by demonstrating a professional behavior while engaging with potential participants. I completed trustworthiness training by completing the course on Protecting Human Research Participants from the National

Institute of Health Office of Extramural Research (Appendix E). Implementation of procedures reduced potential validity threats and protected validity by providing participants full details on the nature of the study and gaining participant trust.

Transferability

In this study, description of findings to the degree that other researchers might be able to generalize the need for more studies allowed transferability to examine ambulatory RN perspectives on their roles in health literacy. Additionally, I plan to disseminate the information from this study in nursing conferences accepting my application for poster boards and abstracts on nursing research with recommendations to advocate health literacy in ambulatory settings.

Dependability

Careful examination of raw data assured dependability and reliability from the data collected from the interviews using NVivo 10 software for data storage and a systematic process to examine data and, data reduction by identifying themes (Table 4).

Conformability

My role as the researcher focused on learning the meaning that participants ascribed to health literacy. This study measured ambulatory RN perspectives of their role in health literacy, views that RNs have towards strategies to communicate health information effectively to their patients and how RNs recognize if the patient understands the health information using content analysis. Triangulation strategy for this study included peer review, bias clarification, and consulting with advisory team, measures noted by Morse (2015). NVivo 10 software allowed the researcher to manage data in an

organized database for transcription recordings and storage. The software required the user to work methodically providing rigor to the analysis process. NVivo 10 software allowed for easy data audit using different queries to confirm the data.

Ethical Procedures

As the researcher, I was a Walden University student enrolled in the PhD Health Services program, not associated with any other organizations. Upon approval of the IRB application, I included the approval code in the documents used to recruit participants. This included the recruitment flyer (Appendix B) that I distributed at a nursing meeting and through social media. I informed all participants that taking part in the study was voluntary. I informed participants that there was no compensation for taking part in the study and that the survey would take approximately 45-60 minutes. I informed participants that they could withdraw at any time. There were no risks associated with this study. A potential benefit for participating in this study was to contribute information about RN knowledge about health literacy roles and patient communication. I secured the data in a password-protected file on a personal computer used only by the researcher. I retained the information for duration of five years as required by Walden University.

Summary

In summary, the purpose of the study was to understand RN perspectives on health literacy roles and patient communication. This chapter detailed the research design and rationale, role of the researcher, methodology, participant selection logic, instrumentation, explained procedures for pilot study, recruitment, participation, data collection, data analysis plan, issues of trustworthiness, and ethical procedures. Health

literacy awareness is a core element in provider patient communication and is integral to improving health outcomes. Implications for possible social change in health services include promoting RN health literacy roles and improving effective communication strategies for patient behavior changes and health outcomes for optimal wellness. Upon proposal approval from the IRB, I began data collection.

Chapter 4

Introduction

The purpose of this qualitative study was to examine and describe ambulatory RN perspectives on health literacy roles and patient communication. The RQs were the following:

RQ1: What perspectives do RNs have on their roles in health literacy?

RQ2: What views do RNs have on skills and strategies to communicate health information effectively to their patients?

RQ3: What challenges do RNs have recognizing whether the patient understands health information?

The three qualitative questions related to the problem statement and purpose of this study to describe RN perspectives on health literacy roles and patient communication. This chapter includes a description of the pilot study, research setting, demographics, data collection, data analysis, evidence of trustworthiness, and study results. In addition, included is an overview of the key results of ambulatory RN perspectives on health literacy roles and patient communication.

Pilot Study

A pilot study allows the researcher an opportunity to make any necessary changes in the study design and methods before proceeding to the main study (Doody & Doody, 2015). Before conducting a pilot study in June 2016, I conferred with a subject matter expert to determine that the interview questions aligned with the research questions of this study. For pilot studies, Simon (2011) asserted that 10% to 20% portion of the

participant members is a reasonable sample. For my study, 10% to 20% of 15 participants yielded two to three participants. Thus, I recruited two participants for the pilot study using a flyer (Appendix B) and interviewed the participants with the use of an interview tool (Appendix D). The pilot study participants were RNs who work in direct ambulatory patient care.

The purpose of the pilot study was to determine if the instrument tool would yield valid responses for the study. After conducting the pilot study, a final adjustment to the data collection procedure was to incorporate probing questions to elicit detailed responses. The pilot study interviews averaged 35 to 45 minutes. A subsequent meeting for transcript review with each participant averaged 15 minutes.

The pilot study was independent of the main study without the results included in the dissertation. The outcomes from the pilot study reflected the interview tool and techniques were effective to collect data in line for this study. Thus, the original proposal sufficed to proceed to the main study, without the need to consult with IRB for revisions.

Setting of the Study

Data collection for this qualitative study took place in July and August 2016. Study participants resided in a county located in the central valley in the state of California. The use of labels of Participant 1 to Participant 15 protected participant identity in an electronic calendar protected by passcode. No participants withdrew, and only one participant requested to reschedule the initial appointment owing to a conflict with another obligation. I met face-to-face with participants at libraries conveniently located near their places of employment. No personal or organization conditions

influenced participants or their experience at the time of the study. The participants consented to participate in the study; the interviews took place during nonworking hours, and the participants received no monetary compensation.

Demographics

The demographics and characteristics of the 15 RN participants included age, gender, race, RN degree, number of years of experience working as an RN, and number of years of experience working in direct patient care in ambulatory settings. Table 6 includes these characteristics.

Table 6

Characteristics of the Participants

#	Age	Gender	Race	RN Degree	RN Experience	Ambulatory Experience
1	41	Female	Hispanic	Associate	5	4
2	58	Female	White	Associate	31	20
3	65	Female	Asian	Associate	35	12
4	56	Female	Asian	Associate	36	10
5	61	Female	Asian	Associate	33	14
6	63	Female	Asian-Indian	Associate	42	17
7	49	Female	Filipino	Bachelors	9	7
8	43	Female	Black	Masters	16	13
9	61	Female	White	Associate	19	14
10	54	Female	Asian-Indian	Associate	24	19
11	55	Male	White	Bachelors	25	12
12	44	Male	Hispanic	Associate	9	9
13	55	Female	White	Associate	16	16
14	31	Female	Filipino	Associate	7	6
15	43	Female	Hispanic	Associate	8	2

Data Collection

Interviews

Study participants included 15 RNs working in direct ambulatory patient care. The first part of the interview consisted of a brief self-introduction, explanation of the study purpose, and reviewing of the informed consent. Participants provided informed consent and answered questions during interviews recorded with AudioNote by Luminant Software. I collected data using the interview tool in Appendix D. Subject matter experts working in ambulatory services and staff development whose professional experience aligned with the scope and content of the study validated the interview tool.

Numeric numbers beginning with 1 and ending with 15 protected participant identity in an electronic calendar protected by passcode. After the interviews, I transcribed the recordings into a Word document and with all identifiable information removed from the transcript. Participants agreed to a follow-up interview for transcript review. There were no significant changes to the responses identified by the participants. I used NVivo 10 software to store the Word documents and field note memos for each interview.

Profiles

Participants included RNs representing a wide spectrum of services in ambulatory nursing including case management, discharge planning, screenings, triage, and various types of medical interventions to maintain and restore their patients' health. All the participants were practicing at the time of the study. I have listed narrative descriptions for each participant below.

Participant 1 was a 41-years-old female at the date of the data collection. The participant identified herself as Hispanic. She reported Spanish to be the primary language spoken at home. The highest level of education completed was an associate degree in nursing. The participant reported a 5-year work experience as an RN and a 4-year work history in ambulatory care.

Participant 2 was a 58-year-old female at the date of the data collection. The participant identified herself as White. She reported English to be the primary language spoken at home. The highest level of education completed was an Associate Degree in Nursing. The participant reported a 31-year work experience as an RN and a 20-year work history in ambulatory care.

Participant 3 was a 65-year-old female at the date of the data collection. The participant identified herself as Asian. She reported Tagalog to be the primary language spoken at home. The highest level of education completed was an Associate Degree in Nursing. The participant reported a 35-year work experience as an RN and a 12-year work history in ambulatory care.

Participant 4 was a 56-year-old female at the date of the data collection. The participant identified herself as Asian. She reported Tagalog to be the primary language spoken at home. The highest level of education completed was an Associate Degree in Nursing. The participant reported a 36-year work experience as an RN and a 10-year work history in ambulatory care.

Participant 5 was a 61-year-old female at the date of the data collection. The participant identified herself as Hispanic. She reported Spanish to be the primary

language spoke at home. The highest level of education completed was an Associate Degree in Nursing. The participant reported a 33-year work experience as an RN and a 14-year work history in ambulatory care.

Participant 6 was a 63-year-old female at the date of the data collection. The participant identified herself as Asian-Indian. She reported Punjabi to be the primary language spoken at home and reported she also spoke Farsi. The highest level of education completed was an Associate Degree in Nursing. The participant reported a 42-year work experience as an RN and a 17-year work history in ambulatory care.

Participant 7 was a 49-year-old female at the date of the data collection. The participant identified herself as Filipino. She reported Tagalog as the primary language spoken at home. The highest level of education completed was a Bachelor of Science in Nursing. The participant reported a 9-year work experience as an RN and a 7-year work history in ambulatory care.

Participant 8 was a 43-year-old female at the date of the data collection. The participant identified herself as African-American. She reported English as the primary language spoken at home. The highest level of education completed was a Master of Science in Nursing. The participant reported a 16-year work experience as an RN and a 13-year work history in ambulatory care.

Participant 9 was a 61-year-old female at the date of the data collection. The participant identified herself as Caucasian. She reported English as the primary language spoken at home. The highest level of education completed was an Associate Degree in

Nursing. The participant reported a 19-year work experience as an RN and a 14-year work history in ambulatory care.

Participant 10 was 54-year-old female at the date of the data collection. The participant identified herself as Asian-Indian. She reported Punjabi as the primary language spoken at home. The participant also reported that she spoke other dialects of Farsi and Bengali. The highest level of education completed was an Associate Degree in Nursing. The participant reported a 24-year work experience as an RN and a 19-year work history in ambulatory care.

Participant 11 was a 55-year-old male at the date of the data collection. The participant identified himself as Caucasian. He reported English as the primary language spoken at home. The highest level of education completed was a Bachelor of Science of Nursing. The participant reported a 25-year work experience as an RN and a 12-year work history in ambulatory care.

Participant 12 was a 44-year-old male at the date of the data collection. The participant identified himself as Hispanic. He reported English as the primary language spoken at home. The highest level of education completed was an Associate Degree in Nursing. The participant reported a 9-year work experience as an RN and a 9-year work history in ambulatory care.

Participant 13 was a 55-year-old female at the date of the data collection. The participant identified herself as White. She reported English as the primary language spoken at home. The highest level of education completed was an Associate Degree in

Nursing. The participant reported a 16-year work experience as an RN and a 16-year work history in ambulatory care.

Participant 14 was a 31-year-old female at the date of the data collection. The participant identified herself as Filipino. She reported Tagalog as the primary language spoken at home. The highest level of education completed was an Associate Degree in Nursing. The participant reported a 7-year work experience as an RN and a 6-year work history in ambulatory care.

Participant 15 was a 43-year-old female at the date of the data collection. The participant identified herself as Hispanic. She reported Spanish as the primary language spoken at home. The highest level of education completed was an Associate Degree in Nursing. The participant reported an 8-year work experience as an RN and a 2-year work history in ambulatory care.

Data Analysis

Researchers frequently use the qualitative methodology in nursing studies because it allows the researcher the opportunity to remain close to data (Sandelwoski, 2009; Sanjari et al., 2014). For this study, participants agreed to participate in recorded interviews. I audiotaped, transcribed verbatim, verified transcription accuracy, and stored the interview data using NVivo 10 software and hand-coding techniques to reflect a final description that aligns with the participants' experiences related to patient communication and health literacy.

The data analysis process in this study replicated the six-step analytical process proposed by Miles and Huberman methodology in data reduction, code, extract, sort

review, generalize, and identify themes. I read each transcript several times to obtain a good understanding of the data. The inductive approach included data reduction, or transformation of the data that included moving raw data gathered in the interview from selected statements (coded units) to categories and themes that support evidence-based research as recommended by Sandelwoski and Leeman (2012). In Table 7, I have provided examples as to the facilitation of data reduction with NVivo 10 software for the display of meaningful unit quotes, categories, and themes. There were no discrepant cases in this study.

Table 7

Examples of Meaningful Unit Quote, Category, and Theme

Meaningful Unit Quote	Category	Theme
"I have to be honest, this is the first time I have heard the term 'health literacy'. If I had to guess, I would imagine it must do with the patient's understanding of health care processes. For medical workers, it may apply to how we can best communicate health information to patients."	No Health Literacy Training	Limited Awareness of Health Literacy
"…I think health literacy is about the patients being able to read information. When we ask patients to sign forms, or fill out forms, do they understand what they are doing? Can the patient read the forms? All of that has to do with health literacy but I really don't know because it is not something I was ever trained on."	No Health Literacy Training	Patient Health Literacy Skills
"I am not familiar with health literacy. I think it is related to a person's ability to read. But I don't know that I understand it…"	No Health Literacy Training	Literacy Skills

Evidence of Trustworthiness

Credibility

The researcher established credibility by following all procedures outlined in the IRB packet when meeting with participants during the data collection process. Each study participant provided full consent for recorded and transcribed interviews. I adhered to using the interview guide (Appendix D) to ask questions that related to the research questions. The sample size was 15 because Marshall et al. (2013) recommended minimizing reaching saturation to the point of new or relevant information. To ensure trustworthiness, participants agreed to schedule a brief follow-up interview to clarify any unclear responses.

Transferability

Within this study, I established transferability protocols to the degree that other researchers may be able to generalize the need for more studies to examine ambulatory RN perspectives on health literacy roles and patient communication. Participants agreed to face-to-face interviews with open-ended questions to capture participant experiences in ambulatory services and perspectives on health literacy roles. The study supports existing literature calling for health literacy awareness and oral communication using plain language and nurses to lead by example (Mayer, 2011). The plan is to disseminate the information from this study in nursing conferences accepting my application for poster boards and abstracts with recommendations to advocate health literacy in ambulatory settings.

Dependability

NVivo 10 for data storage, organization, and data analysis assured dependability. The participants agreed to recorded interviews, which ensured exact words as reflections of the participants' experiences and perspectives on health literacy roles. Additionally, careful examination and review of the data in a systematic process reduced any unnecessary clutter and enabled dependable coding of the data.

Conformability

As Sandelowski and Leeman (2012) suggested, qualitative findings include the researcher's interpretations. To assure conformability, I used strategies to ensure that the outcomes would reflect the participants' responses without bias on my part as the researcher. Data analysis conformed to Miles and Huberman's strategy for managing raw data by coding the data, reflecting on the data, sorting through the data, looking for similarities among the data, generalizing facts that hold true for the data, and examining generalizations in the context of what is known. Additionally, documentation of an audit trail, self-awareness and conferring with dissertation supervisory committee chair enabled conformability.

Results of the Study

The NREM specifically addresses the variables of organizational structure-nurse, process-nurse role, and outcomes related to how nurse care affects patient outcomes (excluded from this study). The key concepts central to the research include structure-nurse related to education, knowledge, and experience. RN responsibilities include assessing, interpreting, and communicating health information (Rondelli et al., 2014). As

noted by Rondelli et al., (2014) education, knowledge, and experience affect role performance. The nurse role function, task, or activities are independent and dependent. Independent roles refer to activities that RNs complete to coordinate or promote patient care. Dependent roles are activities or tasks that require other members of the team such as carrying out medical orders or coordinating care services for the patient. Depicted in Figure 5 are the education, knowledge, experience, and various roles reported by the participants.

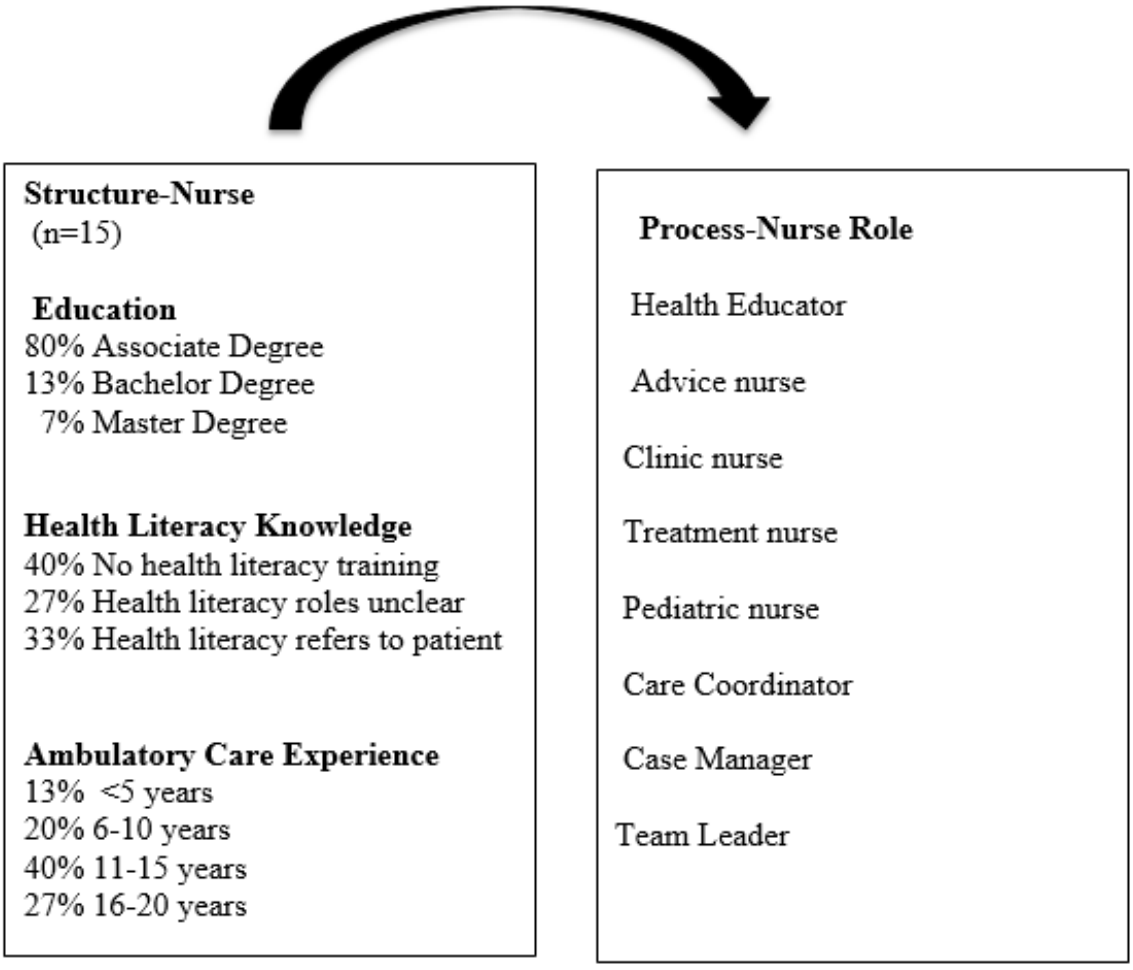

Figure 5. Nurse structure, nurse role, and participant findings.

As for percentages of the participants, 80% reported an associate degree in nursing, 13% reported a bachelor degree in nursing, and 7% reported a master's degree in nursing. Further, 70% of the participants completed their nursing education prior to 1999 when nursing education did not include health literacy training. In regards to health literacy knowledge 40% of the participants reported that they had not been trained in health literacy, 27% of the participants reported that health literacy roles were unclear, 33% of the participants reported that health literacy refers to the patient's ability to read and understand basic health information. Ambulatory care experience reported by the participants varied 13% less than five years, 20% reported 6 to 10 years of experience, 40% reported 11 to 15 years of experience and 27% reported 16 to 20 years of experience.

As a recap of the results of the study, I have compiled a narrative summary in accordance to each research question (RQ), interview question (IQ), and common thematic results:

- For RQ1, limited health literacy awareness and no health literacy training, limited patient health literacy skills and limited RN health literacy skills, and limited understanding of health literacy nurse roles were the common themes for the first interview question (IQ1). Improved patient communication and patient education, respect patient preference, and RNs coordinate patient care services were the common themes for the second interview question (IQ2). Increased patient knowledge, increased patient engagement, and improved health promotion were the common themes for the third interview question (IQ3).

- For RQ2, improved nurse-patient personal connection, patient centered care, and team focused care were the common themes for the fourth interview question (IQ4). Better oral exchange, participatory decision-making improves patient safety, and "plain" language use health outcomes were the common themes for the fifth interview question (IQ5). Patient learning styles vary, communication tools lead to better patient management, and technology acceptance reinforces health information were the common themes for the sixth interview question (IQ6).
- For RQ3, communication challenges and misunderstandings, patient limited literacy, and young and elderly communicate differently were the common themes for the seventh interview question (IQ7). Limited English proficiency, non-compliance to treatment plan, and limited use of health services were the common themes for the eighth interview question (IQ8). Learning need assessment, teach-back method, and skill practice or return demonstration were the common themes for the ninth interview question (IQ9).

As a summary of the thematic results, Table 8 outlines the top 3 result themes that coincided with the NREM framework and aligned research questions (RQs) and interview questions (IQs).

Table 8

Result Themes

Research Question	Interview Question	Result Theme 1	Result Theme 2	Result Theme 3
RQ1	IQ1	Limited Health Literacy Awareness and No Health Literacy Training	Limited Patient Health Literacy Skills and Limited RN Health Literacy Skills	Limited Understanding of Health Literacy Nurse Roles
RQ1	IQ2	Improved Patient Communication and Patient Education	Respect Patient Preference	RNs Coordinate Patient Care Services
RQ1	IQ3	Increased Patient Knowledge	Increased Patient Engagement	Improved Health Promotion
RQ2	IQ4	Improved Nurse-Patient Personal Connection	Patient Centered Care	Team Focused Care
RQ2	IQ5	Better Oral Exchange	Participatory Decision-Making Improves Patient Safety	"Plain" Language Use Improves Health Outcomes
RQ2	IQ6	Patient Learning Styles Vary	Communication Tools Lead to Better Patient Management	Technology Acceptance Reinforces Health Information
RQ3	IQ7	Communication Challenges and Misunderstandings	Patient Limited Literacy	Young and Elderly Communicate Differently
RQ3	IQ8	Limited English Proficiency	Non-Compliance to Treatment Plan	Limited Use of Health Services
RQ3	IQ9	Learning Need Assessment	Teach-Back Method	Skill Practice or Return Demonstration

In the upcoming sections, I expound upon the themed results though the aligned interview questions. Within each interview question, I clustered the results from the participants and reported the top three themes along with frequencies that emerged from each interview question. Furthermore, I provided completed detailed results from each of the interview questions.

Research Question 1

I used three interview questions (IQ1, IQ2, and IQ3) to investigate the perspectives that RNs have toward their roles in health literacy. With the first interview question, I investigated RN participants' understanding of health literacy. The ambulatory RN participants reported the top three results:

- limited health literacy exists due to lack of training, awareness, and understanding (6 of 15 [40%]);
- patient literacy skills and health literacy refer to the patients' ability to understand health information, ability to use the information to learn about treatment options and use the information to manage their conditions (5 of 15 [33.3%]); and
- health literacy roles refer to the healthcare providers' awareness to communicate using words the patient can understand, process, and use the information to make health care decisions (4 of 15 [26.7%]).

With the second interview question, I explored how RN participants' experiences as an ambulatory RN influenced or did not influence health literacy roles in patient communication. The ambulatory RN participants reported the top three results:

- effective patient communication is vital in the many opportunities in the ambulatory setting to educate patients about health issues, health information and to promote health preventative services for improved nurse-patient communication and better patient education (15 of 15 [100%]);
- the nurse role with communication and health literacy in the ambulatory settings improves chances to better manage health, respect patient preferences, and understand experiences that patients face during health setting treatments (6 of 15 [40%]); and
- RN communication and roles in the ambulatory settings enhance care coordination, arrange patient medical care, identify services for the patient needs, and help the patient navigate the health system (7 of 15 [46.7%]).

With third interview question, I examined how ambulatory RNs feel that communicating health information can improve the quality of care. The ambulatory RN participants reported the top three results:

- RNs increase patient knowledge by focusing on the patients' learning needs to improve or optimize health (13 of 20 [65%]);
- RN-patient communication increases patient engagement by communicating health information to the patient and emphasize the benefits of the treatment plan so the patient will be more receptive to making the necessary changes to improve their health (12 of 20 [80%]); and

- RNs contribute to health promotion and empowerment by helping the patient understand their health issues so they feel more confident to manage their chronic conditions (10 of 15 [66.7%]).

Research Question 2

I used three interview questions (IQ4, IQ5, and IQ6) to investigate the perspectives that RNs have toward their roles in health literacy. With the fourth interview question, I investigated RN participants' experiences in face-to-face communication of health information to patients. The ambulatory RN participants reported the top three results from face-to-face communication:

- improved RN-patient personal connection with face-to-face encounter that enables the nurse the opportunity to develop rapport with the patient as part of the health care team (12 of 15 [80%]);
- patient centered care and one-on-one encounters provide the opportunity for conversional ice-breakers to relieve anxiousness and nervousness between the nurse and patient that open to communication channels for the patient to ask details about health information, directions how to take medications, and discuss concerns (13 of 15 [86.7%]); and
- team focused care with face-to-face communications enable a positive experience for the nurse to explore missing gaps in the care plan (incomplete laboratory tests, missed medications, etc.) and encourage the patient to follow through with the gaps (8 of 15 [53.3%]).

With the fifth interview question, I explored ambulatory RN experiences using "plain language" to communicate health information. The ambulatory RN participants reported the top three results regarding using "plain language" to communicate:

- better oral exchange occurs enabling the patient to learn more about their health and allows the patient feel more comfortable to ask questions for clarifications (15 of 15 [100%]);
- listening to the patient and making sure to speak at the patient level of understanding improves health outcome and success with communication of patient with low education levels (6 of 15 [40%]); and
- plain language prevents complications so the patient understands the health information encouraging patients to be more receptive participate more in their care, manage their health conditions better through lifestyle changes and taking medications as prescribed (6 of 15 [40%]).

With the sixth interview question, I examined ambulatory RN experiences using different types of communication technology and tools to support oral communication. The ambulatory RN participants reported the top three results:

- some patients learn better with the use of visuals, diagrams, and 3-D models to reinforce the health information such as dialysis medical care techniques (5 of 15 [33.3%]);
- using different communication tools lead to better patient management and self-management glucose monitoring patients by offering options to attend

diabetes health education class or utilize online learning modules (12 of 15 [80%]); and

- technology allows the opportunity for the RN and the patient better discuss health information or reinforce health information; for example, deaf patients and interpreter technology (13 of 15 [86.7%]).

Research Question 3

With seventh interview question, I investigated RN ambulatory nurses' clinical experiences that may or may not have contributed to health communication challenges. The ambulatory RN participants reported the top three results:

- communication challenges increase with mismatch communication and misunderstandings when the physician sends the patient to ambulatory care for health education or diabetic coaching without informing them of their medical condition in advance for them to learn the reason in the class (9 of 15 [60%]);
- patients with special learning needs often have limited or low health literacy skills and often require more time, explanation, and repetition with explaining their health information (4 of 15 [26.7%]); and
- young and elderly population often present challenges with communication; for example, teens do not offer their full attention and talk on their phones during their consultations whereas the elderly often has hearing and vision impairments or just do not understand correctly (5 of 15 [33.3%]).

In the eighth interview question, I explored ambulatory RN perspectives on "red flags" that signal when the patient may be having problems understanding the health information. The ambulatory RN participants reported the top three results as "red flags" toward patients understanding health information:

- limited English proficiency are "red flags" that contributes to problems with the patient understanding; for example, patient may refuse a translator or sometimes have thick accents not easily understood (6 of 15 [40%]);
- non-compliance to treatment plan increases when the patient does not follow the treatment recommendations (5 of 15 [33.3%]); and
- patients who limit their use of health services can be a "red flag" that the patient has problems understanding; for example, the patient might become angry, not ask questions, or miss appointments. (8 of 15 [53.3%]).

In the ninth interview question, I examined ambulatory RN perspectives on preferred methods to confirm the patients' understanding of health information. The ambulatory RN participants reported the top three results:

- the nurse must assess the learning needs of the patient to determine if addition teaching strategies are necessary (9 of 15 [60%]);
- teach-back method and summaries are effective to confirm if the patient understands; for example, asking the patient to repeat back in their own words the heath information to assure proper understanding (15 of 15 [100%]); and

- skill practice and demonstration are helpful; for example, using a glucometer to demonstrate the steps then ask the patient to check their own blood sugar using their glucometer. (8 of 15 [53.3%]).

Summary

The purpose of this qualitative study was to examine ambulatory RN perspectives on health literacy roles and patient communication. The three research questions yielded several themes. The first research questions focused on RN perspectives on health literacy roles. Themes that emerged with this research question are RNs limited awareness of health literacy and a lack of health literacy training. RNs attribute health literacy as a patient characteristic and RNs are aware that they play a vital role in disseminating health information to patients. The second research question examined RN experience in the face-to-face communication of health information. Emerging themes form this research question reported are that face-to-face encounters present opportunities for establishing nurse-patient relationships, that there is a better oral exchange and that RNs adapt communication to meet the learning needs of the patient. Additionally, RNs recognize that using "plain" language and different communication tools improves patient health knowledge. The third research question studied RNs clinical experiences that may or may not contribute to health communication challenges. The themes that emerged with this research question are that providers do not always disclose the diagnosis to the patients and this contributes to patient misunderstanding health information; limited health literacy presents a challenge for many patients; and other age-related barriers are due to communication differences among young and elderly patients.

In summary, Chapter 4 included an overview of the key results of ambulatory RN perspectives on health literacy roles and patient communication. I described the pilot study, demographics, data collection, data analysis, evidence of trustworthiness and, results. In chapter 5, I present the interpretation of the findings, limitations of the study, recommendations, implication and, conclude with the key essence of the study.

Chapter 5

Introduction

The purpose of this study was to examine ambulatory RN perspectives on health literacy roles and patient communication. Qualitative approaches are common in nursing studies and provide a method to present results using words specific to the phenomenon of health literacy roles and patient communication. Studies address health literacy roles in the inpatient setting; however, ambulatory RNs health literacy roles and patient communication research is scant. The aim of my study was to examine ambulatory RN perspectives on health literacy roles and patient communication.

The qualitative the method of inquiry enabled a flexible design and is a favored method when the goal is to provide straight description of the phenomena, as recommended by Sandelwoski and Leeman (2012). Face-to face interviews using semistructured, open-ended questions for data collection. Participants provided demographic, education, and work experience information. The research questions were important for framing descriptions of ambulatory RN perspectives on health literacy roles and patient communication. The strategy I used to examine the raw data replicated Miles and Huberman's six-step approach for data analysis to understand RN perspectives on health literacy roles and patient communication.

Key findings related to the lived experiences of ambulatory RNs toward regarding literacy roles and patient communication revealed significant percentages of RNs were not familiar with the term *health literacy*, did not have formal training on the concepts of health literacy, and informally assessed patients' understanding of health information.

Understanding of this issue is important because health literacy depends on the health care professional ability to identify patients who do not understand health information.

Principal findings related toward the views that RNs have toward skills and strategies to communicate health information effectively toward their patients disclosed multiple themes. The theme from the second research question disclosed that RNs are aware that patients rely on the health information that RNs provide. Participants reported face-to-face communications seemed to be the best method to establish nurse-patient communication, improving patient engagement and communicating health information.

Chief findings from the third research question, what challenges do RNs have recognizing if the patient understands health information revealed that RNs utilize the teach-back method to check patient's understanding health information. Additionally, RNs reported that if they suspect the patient is having trouble understanding health information they will informally assess learning needs and provide the patient an opportunity to practice a new skill.

Interpretation of the Findings

This study addressed the problem of RNs roles with health literacy and effective patient communication. It is important to understand this issue because RNs play an important role in assisting patients with chronic condition management, with medication management, disseminating health information, and coordination of patient care services (Rondelli et al., 2014). Health literacy, as defined by IOM (2004), relates to "the degree to which an individual has the capacity to obtain, communicate, process and understand basic health information and services to make appropriate health decisions" (p.32).

Health literacy is an active process between the health care provider and the patient. The findings from this qualitative study may add to the knowledge related to ambulatory RNs health literacy roles and patient communication.

This study centered on three research questions using the interview guide (Appendix D). The NREM conceptual framework was the lens that I used to discuss challenges and opportunities to suggest implications for ambulatory organizations to promote health literacy awareness and effective patient communication. For interpretation of findings, I reduced the data from the interviews reported in chapter 4 into theme synthesis as outlined in Table 7. Qualitative researchers may translate findings in different presentation formats (Sandelwoski & Leeman, 2012) to enhance the usability of the information. Researcher may use visual representations such as graphs, figures, or tables to elucidate findings and appeal to wider audiences, as noted by Sandelwoski and Leeman (2012).

To convey the findings from this study, Table 9 lists the thematic findings from the participant responses related to the NREM and the three research questions. RQ1 included care coordination, health communication, patient education, health literacy roles, health promotion, patient knowledge, health literacy training, patient engagement, patient literacy skills, and patient respect. RQ2 included better oral exchange, patient management, health outcomes, decision-making, patient centered care, personal connection, team focused care, technology acceptance, and visual learners. RQ3 included access learning needs, age, behavior, communication, language concordance, literacy issues, mismatch, non-compliance, skill practice, and teach-back method.

Table 9

Findings

RQ1 Nurse Health Literacy Roles	RQ2 Nurse Communication Oral Skills	RQ3 Nurse Health Communication Challenges
Care Coordination	Better Oral Exchange	Access Learning Needs
Health Communication	Patient Management	Age
Patient Education	Health Outcomes	Behavior
Health Literacy Roles	Decision Making	Communication
Health Promotion	Patient Centered Care	Language Concordance
Patient Knowledge	Personal Connection	Literacy Issues
Health Literacy Training	Team Focused Care	Mismatch
Patient Engagement	Technology Acceptance	Non-Compliance
Patient Literacy Skills	Visual Learners	Skill Practice
Patient Respect		Teach-Back Method

Research Question 1

The first research question related to ambulatory RN health literacy roles. To answer this question, I aligned the NREM nurse structure (education, knowledge and experience) to explore health literacy understanding, RN health literacy roles and how communicating information improves the quality of care. Some of the participants in this study reported that they did not have any health literacy training and that they were not familiar with health literacy (IQ1). Participants guessed that health literacy referred to the RN's ability to explain health information and the patient's ability to understand health information. Health literacy as previously mentioned includes a set of skills used by individuals to acquire and understand basic health information. The NAP to improve health literacy notes that healthcare professionals are responsible for communicating health information using words that the patient understands (HHS, 2010). Patient participation improves health outcomes (IOM, 2014). Clear communication using words

the patient understands allows the patient the opportunity to participate in health care decisions. Findings from this study are like the findings by Macabasco-O'Connell and Fry-Bowers (2011) in their study 17% of 240 nurses reported no prior knowledge of health literacy or a lack of understanding that there is a link between limited health literacy and patient care outcomes.

In this study, all the participants reported that most their worked involved providing or reinforcing health information to patients (IQ2). This finding supported previous research conducted by Rondelli et al. (2014) that found ambulatory RNs self-reported daily activities include assessments, teaching, care-coordination, and interventions. RNs play a key role in communicating health information to patients therefore, understanding their role in health literacy is important.

Participants expressed that it was important for the patient to report if they had problems with health literacy and it was equally important for the nurse to note if the patient had difficulty understanding health information (IQ3). Health literacy is a complex concept notes the IOM (2014) involving alignment of the patient's ability to process health information to meet their needs in managing health issues and healthcare workers identifying low health literacy). RNs are patient advocates and well-positioned to reduce disparity gaps and improve health outcomes notes Parnell (2015) and Speros (2011). Increasing awareness of health literacy is crucial for supporting learning and skills important for good health.

Research Question 2

The second research question related to ambulatory RN skills and strategies to communicate health information effectively to their patients. To answer this question, I aligned the NREM process structure (nurse role; educator, clinic nurse, advise nurse, team leader) to the views RNs have toward skills and strategies to communicate health information effectively to their patients. The most important theme in face-to face communication identified by all the participants is that it provides an opportunity for better oral exchange (IQ5). Principles of communication are part of nursing curriculums (Kourkouta & Papathanassiou, 2014) and it applies to all nursing activities. Good oral communication is a skill that requires the nurse to understand the needs of the patient.

Other common themes from participants included communication is bidirectional and it requires participants to send and receive messages; engagement in oral communication and treatment plans is less likely to occur in patients with limited health literacy skills; and the face-to-face communication is an efficient method for nurses to informally assess a patient's health literacy skills. These themes coincide with results noted by Speros (2011) that nurses recognize the needs of the patient and equally important that nurses use words that the patient understands in all patient encounters.

Building a good rapport with the patients is an essential component of providing patient-centered care per the participants (IQ4). The value of patient-centered care cannot be understated notes Raja et al. (2015) the goal is to deliver health services that are in the best interest and respective of the patient (IOM, 2014). RNs need to involve the patient in

all aspects of their care. When the nurse establishes a good relationship with the patient it fosters trust and can influence patients to be more engaged in health care decisions.

An important strategy that participants use to improve health communication includes various electronic mediums (IQ 6). For example, patients who have diabetes may enroll in different types of electronic programs that provide health information or access for patients to upload glucose levels. The nurse can than review the information and reach out to the patient to provide guidance on medication management to improve glucose control. Videos are frequently used when the patient has limited language proficiency. The use of technology in health service delivery has gained wide acceptance reported Wickham and Carbone (2015). It is a valuable tool for managing various chronic conditions that allow healthcare organizations another method to provide health information that address the needs of the patient.

Research Question 3

The third research question related to challenges ambulatory RNs have recognizing if the patient understands the health information. To answer this question, the NREM nurse-role structure enabled exploration to find out the challenges RN's have recognizing if the patient understands the health information. There was an agreement among all participants that there were different ways to tell if the patient understands the health information that includes body and verbal cues (IQ 7). Patients with limited health literacy are generally more reserved and ask fewer questions. Patients often do not report if they cannot read or understand health information. Additionally, participants reported that patients often nod in agreement but when they checked for understanding the patient

was not grasping the information necessary for managing their health condition. Other communication challenges encountered are when elderly patients failed to acknowledge that they do not understand the health information and when adolescent patients answer telephones when the nurse is providing health information.

All participants were confident that they recognized patients who may be having problems with understanding health information (IQ8). Participants reported that signs that the patients may be having problems understanding health information includes not taking medications as prescribed by provider, the patient frequently reschedules or misses appointments and patients with limited English proficiency. These findings are consistent with the information published by AHRQ (2015) in the universal toolkit designed to promote health literacy awareness in health services. Other findings reported by AHRQ (2015) include patients who are poor historians, patients who ask few questions and patients who cannot name their medications or why they are taking them.

All participants reported that they employ the teach-back method to ensure that the patient understands the information as explained to them (IQ9). The teach-back method by AHRQ (2015) is as an effective method to use to educate and assess patient understanding of the health information. Diabetes management improved when health care providers used the teach-back method (ARQ, 2015; IOM, 2014) to explain diabetes self-management. The literature (ARQ, 2015) also notes the adjuvant effect that assessing the learning needs and providing the patient an opportunity to practice the new skill improves health outcomes.

RNs in ambulatory services play an important role in the delivery of patient care. There are limited studies about RN health literacy education notes Macabasco-O'Connell and Fry-Bowers (2011) or recommendations for health literacy education competency. Health literacy educational competency refers to a health professional's knowledge and skills needed to address the needs of patients with low health literacy (AHRQ, 2010). Failure to address RN educational competency has the potential to increase healthcare disparity for vulnerable populations.

Limitations of the Study

Limitations related to the design of this qualitative study included researcher time constraints, using a purposeful-convenience sample and, self-reported data. The focus of this study was to examine ambulatory RNs perspectives of health literacy roles and nurse-patient communication. There are limitations associated with using self-reported data (1) selective memory in that a participant may or may not remember an experience, (2) participants may exaggerate, (3) participants may attribute positive outcomes to an experience (4) the reported event may be different than the time-frame (University of Southern California, 2016). The convenience sample of 15 participants may not be representative of the views of all ambulatory RNs in southern California.

Recommendations

Upon review of the findings in this study, more research may support the need to better understand health literacy training in ambulatory services. Within this study, 40% of the RNs were not familiar with the concept or health literacy terminology. Health literacy skills for professionals are essential for communicating health information to

vulnerable populations. Implementing educational programs to increase health literacy educational competency will increase the RNs knowledge of health literacy and reduce health literacy related-barriers for vulnerable populations.

RN positive contributions include health education, health promotion and patient safety. Health literacy is a complex and dynamic concept and affects many people. Health literacy is a public problem per the IOM (2014) because the demands of healthcare exceed the consumer's skills and ability to use health services. Researchers (Green et al., 2014b; Ivanov et al., 2015) have noted that when healthcare professionals use clear language and avoid medical terminology that patient health outcomes improve. Adopting a universal approach to nurse-patient communication enhances patient-care services and improves health outcomes.

Based on the key findings revealing significant percentages of RNs were not familiar with the term health literacy, did not have formal training on the concepts of health literacy, and informally assess patients' understanding of health information; I would recommend that ambulatory services leverage technology as a tool to enhance nurse-patient communication. Some participants mentioned that they worked with a large population of limited English proficiency. Digital mediums may be effective to deliver targeted health information to culturally diverse population. Another recommendation would include health literacy educational consumer videos.

Implications

Ambulatory RNs must possess skills and knowledge to manage more medical complex patients that often have difficulty understanding basic health information.

Ambulatory RNs are well positioned to influence discussions and policies that define nurse health literacy roles. A positive contribution from this study includes promoting the implementation of the NAP to improve Health Literacy provides nurses the conceptual framework for understanding health literacy roles.

Positive social change implications in this study include advocating awareness of RNs health literacy roles. Face-to-face encounters are arguably the best way to establish strong nurse-patient relationships; however, more organizations are utilizing technology to address the needs and care of the patient. For consumers to benefit, healthcare delivery systems need to support nurse education programs using technology for patient communication. This recommendation aligns with the IOM (2010) report calling for nurses to take a leadership role in the demands of the changing health care system. It also aligns with the NREM nurse role for improving health outcomes and patient safety.

Opportunities may exist to disseminate the summary results to health delivery services, administrators and nurses through poster presentations. Additionally, this study may extend the literature by addressing the research gap in peer reviewed print and electronic journals. The findings from this study provided the opportunity for ambulatory nurses to express their views on health literacy roles and patient communication. The scope of this qualitative study was to target potential transferability.

Conclusion

The goal of qualitative research is to translate the findings of the study into a comprehensive summary while maintaining the integrity of the data. The results of this study disclosed that ambulatory RNs view their role in providing health information on

many topics as an essential function of their job. The data also showed that ambulatory services need to invest more in health literacy training to promote the concept of health literacy.

At the service level, identifying health literacy barriers remain an important component of the nurse-patient communication. The IOM (2014) has been clear that health delivery systems must make organizational changes that incorporate addressing the needs of consumers with limited health literacy. Nursing leaders have called for nurses to take the lead role by identifying health literacy needs of the patient to ensure patient safety and high quality care. The National Plan to Address Health Literacy provides the framework for health administrators to adopt delivery systems and the universal toolkit provides evidence-based tools to enhance nurse-patient communication. The findings of this study may improve ambulatory nurses' perspectives on health literacy roles and patient communication in efforts for more awareness of the term health literacy, increased formal training on the concepts of health literacy, and techniques to formally assess patients' understanding of health information.

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Appendix A: Permission to use Health Literacy Definitions

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Appendix B: Recruitment Flyer

Doctoral Research Study

My name is Gloria Redden, a PhD student in Health Services at Walden University, conducting a research study related to Ambulatory RNs' Perspectives Toward Health Literacy Roles and Patient Communication.

I am seeking registered nurse participants to interview who work in direct patient care. The face-to face interview takes approximately 45 to 60. At any time during the interview, the research participant may withdraw if she or he does not want to continue.

There is no compensation for participating in the study. This researcher hopes the study will benefit nurses, patients and administrators by promoting health literacy awareness and effective patient communication.

The Institutional Review Board (IRB) approval number from Walden University for this study is XX-XX-XX-XXXXXXX and expires on XX-XX-XXXX

If you have any questions, please feel free to contact me at (XXX) XXX-XXXX.

Sincerely,
Gloria Redden, MSA, RN

Note: Photo reprinted with permission from iStock.

Appendix C: Demographic Questions

Number	Questions	Definition	Data Measurement
DQ1	What is your age?	Self-reported years of age calculation based on RN's birth date	Mean
DQ2	What is your gender?	Self-reported gender-male or female	Categorical
DQ3	What is your race?	Self-reported race	Categorical
DQ4	What is the highest level of education completed?	Self-reported highest degree held (Associate, Bachelor, Master's or higher)	Categorical
DQ5	How many years have you been working as an RN?	Self-reported years of experience as an RN	Mean
DQ6	How many of those years have you worked as an RN in ambulatory care?	Self-reported years working in ambulatory care	Mean

Appendix D: Interview Guide

Introduction: Provide the name of the researcher, title of the study, the research purpose, and the IRB approval number. Obtain demographic information; age, gender, race, education, years working as a registered nurse, and years working as a registered nurse in ambulatory direct patient care.

Nurse Roles

- IQ1: Tell me what your understanding of health literacy is.
- IQ2: How have your experiences as an ambulatory RN influenced you or not influenced you toward health literacy roles in patient communication?
- IQ3: Explain how communicating health information can improve the quality of care.

Communication

- Q4: Describe your experience in face-to-face communication of health information to patients.
- IQ5: Tell me about your experiences using "plain language" to communicate health information.
- IQ6: What are preferred methods to confirm the patients understanding of health information?

Challenges

- IQ7: Tell me about clinical experiences that may or may not have contributed to health communication challenges.
- IQ8: Describe some "red flags" that signal when the patient may be having problems understanding the health information.
- IQ 9: Tell me about your experiences using different type of communication technology and tools to support oral communication.

Conclusion: Express gratitude to the participant for their time as a research participant.

Debrief: Explain to the participant what happens next and explain how they will be contacted for follow-up and verification. Inform the participant that their data will be protected.

Appendix E: NIH Certificate

Certificate of Completion

The National Institutes of Health (NIH) Office of Extramural Research certifies that **Gloria Redden** successfully completed the NIH Web-based training course "Protecting Human Research Participants".

Date of completion: 05/25/2015

Certification Number: 1769306

Appendix F: Centers for Disease Control Certificate

The Centers for Disease Control and Prevention (CDC)

certifies that

Gloria Redden

has participated in the educational activity

Health Literacy for Public Health Professionals (Web-based)

WB2364

and is awarded

1 Contact Hour(s)

on 1/10/2016

The Centers for Disease Control and Prevention is accredited as a provider of Continuing Nursing Education by the American Nurses Credentialing Center's Commission on Accreditation.

Signature Redacted

Sharon L. Hall, RN, PhD
Acting Administrator, Continuing Education
Centers for Disease Control and Prevention
1600 Clifton Road NE, MS E-96
Atlanta, Georgia 30333

Appendix G: Permission to Use Nurse-Patient Communication Standards

From: xxxxxxx xxx

Subject: Permission Request Response

Date: March 3, 2016 at 9:13:17 AM PST

To: Gloria Redden

Good Afternoon Ms. Redden:

Please forgive my delay in responding to your permissions request!

ANA will grant permission for you to use Standard 11: Communication of its Nursing: Scope and Standards of Practice (2010) provided it does not extend to revisions, future works, nor does it extend to derivative works, world distribution in different languages and that no ANA content will be altered or changed. Please five full credit of the source.

I will be happy to waive the permissions fee due to this content being used solely for educational purposes.

Thank you.

Regards,
xxxxxxx xxx