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# Perception of Health Literacy Levels Among Nurses in Clinical Settings

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**Perception of Health Literacy Levels Among Nurses in Clinical Settings**

by

Chelsea Lancaster Oxendine

A project submitted to the faculty of  
Gardner-Webb University School of Nursing  
in partial fulfillment of the requirements for the  
Master of Science in Nursing Degree

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Date

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## **CHAPTER I**

### **Introduction**

Health literacy has been defined as “the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions” (Somers & Mahadevan, 2010, p. 7). Poor health literacy is directly and indirectly linked to negative health outcomes, to include an increased rate of mortality (Alijassim & Ostini, 2020; Wittenberg et al., 2018; Nantsupawat et al., 2020; Torres & Nichols, 2014).

### **Problem Statement**

Nurses, on the frontline of healthcare, lack the necessary training to provide high-quality health literacy support to patients. Specifically, nurses with 10 years or more of experience, have been identified as lacking the appropriate health literacy training (Wittenberg et al., 2018).

### **Significance**

Health literacy has been nationally recognized as an essential need in healthcare for many years. A health literacy survey, conducted by the United States (U.S.) Department of Education showed that 88% of adults in the US do not have adequate health literacy skills to successfully manage the demands of the current healthcare system and 36% have limited disease-related health literacy (Brega et al., 2018). In 2004, the Institute of Medicine (IOM) provided guidance highlighting the need for improved education and competency development in health literacy for health professionals to improve patient outcomes (IOM, 2004). The Agency for Healthcare Research and Quality (AHRQ), Quality and Safety Education for Nurses (QSEN), and United States

Department of Health and Human Services (USDHHS) also identified health literacy as a high priority due to the potential negative impact on individual health outcomes (USDHHS, 2010). The Center for Healthcare Strategies identified a link between low health literacy and poor adherence to treatment plans, medication errors, ineffective chronic disease self-management, increased use of hospital services, and increased mortality rates (Mahadevan, 2013). These poor health outcomes result in a high-cost burden (Loan et al., 2018).

An essential component for the effective delivery of health information is the use of “plain language”, which makes information easier to understand (Centers for Disease Control and Prevention [CDC], 2021). U.S. Congress passed the Plain Writing Act of 2010, and mandated organizations to communicate with patients in “plain writing”, which is defined as language specific to a field or subject, focused on the intended audience, and is well-organized, clear, and concise (CDC, 2021). Organizations were also mandated to train healthcare professionals in “plain writing”. The USDHHS provided a National Action Plan to Improve Health Literacy, which was released in 2010, which provided strategies to implement health literacy programs (USDHHS, 2010). More than 10 years later nurses are still struggling to provide effective health literacy support due to a lack of training.

Many nursing schools have implemented some form of health literacy training. Yet many nurses in the workforce graduated from school prior to the integration of those competencies and did not receive training (Dickens et al., 2013). There is little information regarding organizational training about health literacy assessment and support for nurses. Communication between a nurse and a patient is critical when

addressing health literacy; however, education and training provided by organizations for healthcare staff does not routinely address effective communication techniques using clear, plain language (Coleman & Fromer, 2015; Warde et al., 2018). Communication problems between healthcare staff and patients are worsened when healthcare staff assumes that a patient understands more of what is being discussed (Warde et al., 2018). Assumptions about a patient's understanding can be dangerous and even life-threatening. It is crucial that healthcare staff are provided with adequate training and education about health literacy assessment and support in order to learn effective communication skills that will encourage patient understanding and improve patient outcomes.

### **Purpose**

The purpose of this project was to design an educational session that will equip nurses with the knowledge and skills necessary to ensure that effective health literacy support is provided for patients in rural and medically underserved areas.

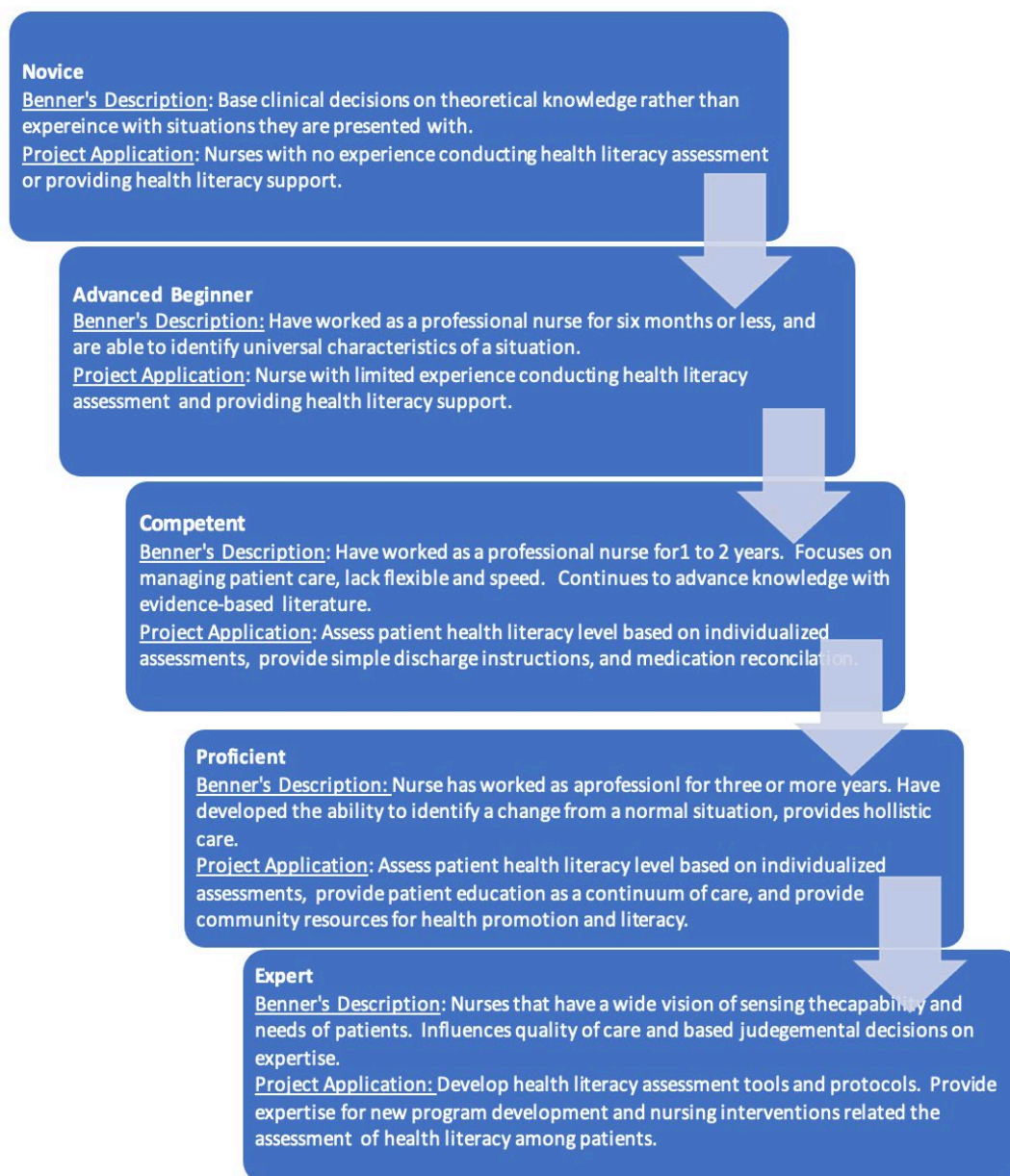
### **Conceptual Framework**

A conceptual framework serves as a guide for the selection of evidence-based nursing interventions that improve patient health and wellbeing. The concept central to the project is weak health literacy and its effects on the patient's ability to make rational healthcare decisions. Nurses who develop therapeutic relationships with patients and with appropriate training are able to conduct health literacy assessments and provide effective health literacy support.

The conceptual framework identified and incorporated as the foundation for this project is Patricia Benner's Theory, From Novice to Expert: Excellence and Power in Clinical Nursing Practice (Benner, 1984). Benner's Theory was selected because it

describes a structured process that each nurse completes when learning and implementing a new activity or procedure. The Novice to Expert Theory suggests that nurses with new knowledge move through five levels as their knowledge and experience increase. These levels are entitled novice, advanced beginner, competent, proficient, and expert (Benner, 1982). According to Benner (1982), the skills necessary to demonstrate advancement from one level to another include that a nurse must be able to: (1) Recognize a shift from reliance on abstract principles to reliance on personal experience; (2) View a situation in its entirety with specific relative parts as opposed to discrete entities; and (3) Be engaged as an active performer instead of an observer.

In Benner's conceptual model, the Novice nurse is one without experience to perform an assigned task. An Advanced Beginner nurse is one who can perform an assigned task with minimal experience and guidance. A Competent nurse has a significant amount of experience to perform a specific task with a focus on priorities and the associated long-range goals. Proficient nurses have experiences that allow recognition and anticipate abnormal events from a holistic perspective. They make clinical decisions based on their awareness and previous experiences. An Expert nurse can rely on experiences, rather than guiding principles, to perform tasks and make clinical decisions (Benner, 1982). Figure 1 illustrates Benner's Novice to Expert Concepts of novice, advanced beginner, competent, proficient, and expert and how they apply to this project.

**Figure 1***Benner's Concepts and Application to Project***Definition of Terms**

- Health literacy: “The degree to which individual has the capacity to obtain, process, and understand basic health information and services needed to make

appropriate health decisions” (Health Literacy Measurement Tools, 2019, para. 1).

- E-health: An emerging field in the intersection of medical information, public health, and business, referring to health services and information delivered or enhanced through the internet and related technologies (Kaur & Gupta, 2006).
- Electronic health record (EHR): Digital version of patient’s medical chart.
- Telemedicine: The diagnosis and treatment of patients with the implementation of telecommunication technology remotely.
- mHealth (mobile health): The use of wireless technology and/or mobile phones in medical care.

### **Summary**

Nurses are essential to the patient education process throughout healthcare settings. Competence and confidence in identifying and delivering information to improve patient and family health literacy is crucial to providing the highest quality, patient-centered care. For many nurses, this is a challenge because of the limitation targeted towards health education trainings, health literacy assessments, and effective communication with patients.

## **CHAPTER II**

### **Literature Review**

#### **Literature Related to Problem Statement**

A literature review was governed by searching a variety of search engines and databases. The following database was included in the completion of this literature review: Nursing Reference Center Plus, Cumulative Index to Nursing and Allied Health Literature (CINAHL), Health Source: Nursing/ Academic Edition, Nursing, and Allied Health Database, ProQuest, and the searches Google and Bing. The following key terms were included in the search: health literacy, nursing interventions, nursing experience, nurse knowledge of health literacy, and experience.

#### **Conceptual Literature Review**

A review of the literature illustrates there is limited research conducted regarding the knowledge and skills of nurses for health literacy assessments and effective health literacy support for patients.

#### **Health Literacy Among Nurses**

According to Nantsupawat et al. (2020), health literacy is identified as how individuals obtain, understand, use, and communication about health information to make informed decisions and make judgmental actions regarding their healthcare, health promotion, disease prevention, and life improvement actions. Health literacy is beyond a person's ability to read and write. It incorporates the process of completing forms, following directions, interacting with professionals, functioning in health care settings, and calculating and usage of basic mathematical skills.

Patients are introduced to the healthcare system with a magnitude of health knowledge, health experiences, and health literacy (HL) competencies. The complexity of health care can be stressful to those that have a higher level of health literacy. However, for patients that have insufficient knowledge and lower levels of health literacy, determining the best decisions related to their health and wellbeing can be challenging. Patients that have a weak health literacy level are more prone to result to decreased preventative health services, increase emergency department visits, increased hospitalizations, and an increase in a financial burden for healthcare. At the forefront of the healthcare system, nurses are held accountable for providing patients the educational tools and materials related to healthcare based on patients' health literacy levels.

### ***Knowledge and Experience with Health Literacy Among Nurses***

Nesari et al. (2019) used a quantitative descriptive study evaluating 190 registered nurses in Tehran, Iran to determine their knowledge and experience with health literacy as a practicing nurse. A brief informative presentation was presented to attendees regarding the study and a printout of the survey was provided to participants that choose to move forward in the study. Utilizing the Health Literacy Knowledge and Experience Survey (HL-KES), data was collected to provide an overview of the participants' understanding and experience with health literacy. The modified version of the HL-KES consisted of the following three sections: demographics, health literacy knowledge, and health literacy experience. Study results illustrated a gap in knowledge and experience with health literacy (Nesari et al., 2019).

Nantsupawat et al. (2020), used a cross-sectional study to evaluate nurses' communication techniques, knowledge of health literacy, and present barriers associated



with implementing health literacy interventions. There were 1,697 nurses selected to complete a self-report measure survey. Simple sampling was implemented to randomly selecting 20-25 staff nurses that provide direct patient care. The Nursing Professional Health Literacy Survey (NPHLS) was employed to assess nurses' health literacy. Prior to the distribution of the self-reported surveys, participants were provided with information related to the research objectives, data collection methods, and participants' rights related to the study. Participants were asked to seal the complete surveys and return them to a secured lockbox at the designated unit within a 2-week timeframe. The results of the study determined majority of the nurses were not familiar with the concept or term health literacy. Based on the data collected, limited organizational techniques, and lack of strategies to train nursing staff on the concept of health literacy and effective assessment of health literacy among their patient population. This finding correlates with other studies that concurred health literacy knowledge among health care providers and nurses is limited (Macabasco-o'Connell & Fry-Bowers, 2011).

Knight (2011) used a cross-sectional study to examine health literacy experience, knowledge, and evaluate nurse's readiness to implement health literacy interventions among registered nurses in the state of Georgia. Participants were collected from the state's registered nurse registry consisting of 101,040 active nurses. From the registry using a systemically selected process, 1,500 nurses were chosen for the study. Participants were filtered based on 3 or more years of experience and currently practicing in the state of Georgia. Surveys were provided via mail to the participants and responses were requested. A total of 141 registered nurses were engaged in the study. The data was obtained using the Health Literature Knowledge and Experience Survey (HL-KES). The

study revealed that participants lack experience in areas associated with health literacy being the utilization of health literacy screening tools and assessing the reading level of educational material prior to implementing teaching with patients.

Macabaso-O'Connell and Fry-Bowers (2011), used a cross-sectional, descriptive study to assess the perception and knowledge of nurses related to health literacy in their profession. Two hundred seventy licensed registered nurses in the State of California were randomly selected from a public database of registered nurses within the state and invited to voluntarily participate via mailed letters in a web-based survey. Each participant was informed their information would remain anonymous. Nurses that engaged in the survey were entered into a prize drawing as an incentive for participating. The study explored the following bulletins:

- To assess self-reported nursing communication techniques used to aid individuals with limited health literacy.
- To identify nursing professional perception and knowledge on the impact of limited health literacy of individual patients and their nursing practice.
- To analyze nursing professional awareness of barriers associated with the implementation of health literacy programs at their place of practice for patients.

Participant's perception and knowledge of health literacy were evaluated using the Nursing Professional Health Literacy Survey (NPHLS). A total of 76 respondents engaged in the study, with the majority of the attendees possessing an advanced nursing degree (Masters or Ph.D.) reporting they were familiar with the term health literacy; however, many reported receiving no training or formal education while in the clinical setting related to the term. The results revealed nursing professionals' understanding of

health literacy and the role it plays with patient outcomes and their professional knowledge of health literacy was limited.

Chang et al. (2020) used a descriptive cross-sectional study to explore factors related to knowledge and experience of health literacy of 400 Chinese-speaking nurses from Taiwan hospitals and community health centers. This study incorporated a web-based survey for participants to complete virtually. Coordinators from various community centers and unit directors correlated with the research developer to arrange information sessions to educate participants of the study. Participants were provided with a QR Code to access the survey later. The study concluded that the majority of the participants were unaware of available health literacy screenings tools, with 80% reporting they rarely or never assessed their patient's health literacy using a validated tool, and 60% reporting they relied on their intuition.

### ***Nurses Perception of Health Literacy Among Patients***

Dickens et al. (2013) used a cross-sectional study to explore the comparison of nurses' estimation of a patient health literacy level to the patient's documented health literacy level. This study consisted of 65 patients and 30 nurses recruited from two cardiac units. Patients were asked to complete the Newest Vital Sign (NVS) tool and the Single Item Literacy Screener (SILS). The nurse was assigned to estimate the patient's health literacy level by choosing one question from the three health literacy categories of the NVS. Based on the NVS results, 63% of the patients in the study were identified as having limited health literacy; however, nurses reporting 19% of the patients having a limited health literacy based on their perception and assessment of the patient. The results demonstrated that nurses inaccurately identify patients with weak health literacy. The

study failed to identify the nurse's level of experience associated with the research. Therefore, the nurses documented experience of practicing and knowledge of health literacy with patients was unknown.

### ***Novice Nurses Versus Experience Nurses and Low Health Literacy Population***

Wittenberg et al. (2018) used a cross-sectional survey design to explore communication challenges for nurses with low-literacy patients by measuring the nurses' experience with patient health literacy needs, perceived barriers with low-literacy patients, and comfort with health literacy support. Seventy-four nurses enrolled in a COMFORT communication training session participated in the survey that consisted of 70 open-ended items. The COMFORT communication training was delivered on a 2-day session providing attendees with a curriculum targeting communication. The survey was distributed and completed prior to receiving the course content. The survey consisted of open-ended questions related to challenges associated with health literacy and patient scenarios with low health literacy that asked to indicate the frequency of providing care. The results from this study determined that the group of nurse's awareness to care for patients with weak health literacy was limited; however, felt comfortable with health literacy support. Nurses with less than 10 years of experience reported a higher comfort level of care for patients with weak health literacy compared to nurses with more than 10 years of experience.

### ***Nursing Student's Perception of Health Literacy***

McCleary-Jones (2012) used a comparative study to assess the knowledge of baccalaureate nursing students related to health literacy before and after the implementation of an online educational module. Eighty-nine baccalaureate nursing

students completed a demographic data sheet and pretest to determine current knowledge related to health literacy; however, upon completion of the health literacy module, only 53 nursing students completed the assigned post-test. Participants were informed the purpose of the study was to assess current knowledge of health literacy and the data obtained would be utilized for future curriculum planning. All students complete a pre-test consisting of five questions related to health literacy and patient care. All students were reminded via e-mail to complete the post-test after completing the assigned health literacy module. The study concluded that students who reviewed the assigned module and completed the post-test reached a higher level of knowledge compared to the data that was obtained from the pre-test assessment.

Balmer et al. (2020) used a cross-sectional study to establish the health literacy profiles of undergraduate nursing students between international regions among level one and level two students. The study aimed to determine if health literacy between level one and level two nursing students from various international regions were significantly different in comparison. Four regions were designated in the study as followed: Pacific A, Pacific B, Southeastern Asia, and Europe. Eight hundred and forty-five students participated in the study and were invited to complete the assigned online Health Literacy Questionnaire (HLQ) survey anonymously. Students were recruited through verbal announcements, social media platforms, posters/flyers, and email. The study concluded that undergraduate nursing students in South East Asia compared to other regions have a higher level of understanding related to health literacy across the program. The influential factor was noted as student's expectations of the healthcare system or cultural differences.

### **Strengths and Limitations of Literature**

A review of the literature identified numerous studies focusing on health literacy levels and the impact a patient's ability to obtain, understand, and process information affects their decisions related to healthcare (Nantsupawat et al., 2020). Nurses represent a vital role in patient care and providing patient-centered education according to the patients' health literacy level. The literature provided evidence that nurses' ability to assess and determine a patient's health literacy level can impact the patient's self-care tremendously. Several studies have evaluated nurse's perception, knowledge, and experience related to health literacy revealing limitations related to health literacy assessments and often overestimating a patient's level of health literacy (Knight, 2011; Macabasco-O'Connell & Frye-Bowers, 2011; McCleary, 2012; Nesari et al., 2019).

The most compelling gap in health literacy was the experience and knowledge of nurses that participated in several studies implied that nurses are not competently prepared to provide sufficient health literacy interventions (Knight, 2011). Based on the literature review, proficient nurses, nurses with more than 3 years of experience, illustrated a limitation when assessing a patient's health literacy level and relied on their institution to identify that patient's ability to process health-related information (Wittenberg et al., 2018). Based on this information, nursing educational institutions have placed a higher level of prioritizing and incorporating health literacy into academia. Providing earlier exposure as a novice nurse to health literacy and proper assessment has illustrated a higher level of confidence and understanding for patient care related to health literacy (Torres & Nichols, 2014).

Significant limitations in the literature were unknown years of nursing experience with health literacy, lack of diversity in ethnicity/race within the nurse population, limited sampling sizing, limited response rates to surveys, and inability to govern variability in the study environment. In addition, various studies focused on acute care nurse's knowledge and experience compared to nurses that practiced in other settings.

This project pursues to focus on addressing the limitations, weaknesses, and gaps identified in the literature through establishing fundamental sessions within the acute care setting targeting registered nurses and health literacy associated care. Limited studies have been identified targeting a nurses' ability to provide adequate patient care based on knowledge and experience with patient's health literacy levels. Additional research is necessary to support training for health literacy screenings in the clinical setting for nurses. This project will aid in the design of training sessions/programs targeting the education of nurses on implementing health literacy measurement tools to provide patient education based on patients' learning abilities.

### **Summary**

The review of literature provides evidence that nurses lack the ability to adequately provide patient education based on patient's health literacy levels. This limitation is formed on the lack of training, experience, exposure, and knowledge of health literacy related to nurses and their ability to incorporate HL into their practice. Introducing the concept of health literacy and programs that target this concept in nursing can increase patient wellbeing and management of self-care among the patient population.

## **CHAPTER III**

### **Needs Assessment**

Health literacy has been nationally recognized as an imperative need among nurses in the healthcare setting. Nurses are the leading patient educators in the inpatient and outpatient settings. Providing nurses with the proper tools to better grasp the concept of health literacy and how it relates to their patients, increases health outcomes with self-care management. The purpose of this project was to implement an educational session that will equip nurses with the knowledge and skills necessary to ensure that effective health literacy support is provided for patients in rural and medically underserved areas.

### **Target Population**

The population associated with this project will consist of registered nurses currently practicing in the acute care setting who provide patient care and education. Nurses from the emergency department, intensive care, medical-surgical, obstetrics, pediatrics, progressive care, and telemetry units will be included. There were no additional exclusion criteria. This researcher is interested in including nurses with greater than 10 years of experience, as the literature has identified that registered nurses with advanced years in practice have limited experience and knowledge related to patients' health literacy levels and the effects these limitations have on patient's ability to make component health decisions (Dickens et al., 2013).

### **Target Setting**

The setting for this project was a 104-bed, rural hospital which predominately serves low social-economic minority groups. The mission of the hospital focuses on creating and maintaining the following components: high quality, safe, compassionate,



and sustainable care to their patients. Incorporating the values and vision of being a health care system that is community-owned and focuses on accountability and transparency within the community, provides an opportunity to evaluate how effective health literacy programs are within the community.

### **Sponsors and Stakeholders**

Several project sponsors have been identified as influential in providing needed access to data for this project. Sponsors were designated from the patient's interdisciplinary care team to include case management and risk management. Individuals that have been identified as internal stakeholders in this project are nursing administration consisting of the hospital's Chief Nursing Officer (CNO), three departmental directors, five-unit managers, and all unit staff nurses associated with the hospital. Involving nurse leadership incorporates the authoritative support needed to produce the desired outcomes. Unit managers will be able to provide guidance to nursing staff regarding weekly health literacy rounding to determine if patients are receptive to the quality improvement project objectives. Unit directors can develop goals, financial incentives, and accountability to staff for empowering patient engagement. The CNO can report performance on patient satisfaction associated with quality improvement to the board management team for additional funding to promote health literacy training/sessions among nursing staff.

### **SWOT Analysis**

#### **Strengths**

- Back to basic funding provided if the unit has a limited number of re-admitted patients for the fiscal year

- Incorporating patients in the plan of care
- Providing health education literature to all patients prior to discharge formatted for easy read viewing
- Sufficient staffing to decrease nurse to patient ratio providing opportunities for nurses to focus on direct patient care

### **Weaknesses**

- Genuine educational evaluation assessment completed each shift by the assigned nurse
- Involvement of all interdisciplinary team members with patient education
- Providing target patient education from admission to discharge related to plan of care
- Implementation of the teach-back method and use of plain language while communicating with patients
- Misinterpreting and assuming all patients maintain a higher level of health literacy

### **Opportunities**

- Completing quarterly competency skills checkoff focusing on health literacy knowledge
- Training focused on effective health literacy assessment among staff nurses in all assigned departments
- Implementing trainings targeting open-ended communication among patients

- Providing education promoting a shame-free environment among patients to decrease judgement
- Providing educational sessions focusing on the interpretation of uncomfortable body language
- Providing educational sessions for other disciplinary team members on how to evaluate a patient's health literacy score prior to completing assigned task or education

### **Threats**

- Funding to promote continuous training/sessions for nurses
- Patient rapport in the hospital to provide safe care conflicted from previous experience
- Lack of interdisciplinary team communication
- Decreases engagement with community participants and partners due to funding

### **Available Resources**

Implementing training focusing on furthering nurses' knowledge and skills towards health literacy will require alternating existing programs such as new nurse graduate orientation programs and developing new training for practicing nurses within the organization. Resources that will need to be allocated consist of personnel (voluntary or paid staffing), utilization of education lectures rooms, creation of digital scenarios for visualization, and development of a network learning program for annual competency. Incorporating unit managers to allocate additional funding designated for nurse education may also be needed during the budgeting process.

### **Desired and Expected Outcomes**

Desired outcomes associated with the implementation of health literacy training are that nurses will retain the knowledge and skills related to health literacy assessments and incorporate them into practice providing patients with the education that is specific for their health literacy level.

### **Team Members**

Individuals that are involved in the development of this quality improvement project are listed below. Each role will contribute to the success of health literacy among staff nurses to provide safe and effective care starting with a strong understanding of health literacy and how it relates to their practice.

#### **Project Leader**

The project leader provides advanced knowledge of the material being implemented to the targeted group (staff nurses). With the experience of floor nursing and direct patient care, the project leader can provide valid information and insight from a nursing perspective related to health literacy.

#### **Training Coordinator/Nurse Educator**

The training coordinator/nurse educator can be incorporated into the development of team members as a point of reference during the beginning stages of the training and assist with program development and engagement of attendees. This individual's expertise and background can provide guidance related to how to effectively conduct a training session with the participants to maximize engagement.

**Scheduling Coordinator**

The Scheduling Coordinator can construct designated dates for training sessions to be completed based on staffing and patient census. This individual can analyze yearly patient census reports to determine a flexible schedule to accommodate participants' schedules during cycles of decrease patient admissions/ratios.

**IT Software Developer**

The in-house Information Technology department can assist with developing possible software or proficiency assessments for annual competencies. Annual competencies are designed in-house; therefore, implementing another competency into the existing program will eliminate having to provide capital to another vendor for troubleshooting errors and future updates.

**Nurse Manager**

Nurse unit managers will assist with ensuring nurses receive appropriate compensation for participating in the training sessions. Each unit is provided a designated amount of funding for staff education each fiscal year.

**Cost/Benefit Analysis**

Incorporating a cost versus benefit analysis for implementing nurse education related to health literacy provides a comparison of the monetary value and advantage of implementing the proposed project. The numerical values associated with the analysis are provided below. With the predicted positive outcome of this training and incorporation into patient care, it is anticipated that re-admission rates for patients with chronic medical conditions will decrease resulting in an increase in revenue to the organization by not having to compensate for repeat re-admission costs within 30 days post-discharge.

Program development for the information technology department will average \$2,990.00 for the initial development stage and pricing will vary for updates depending on the request alternation. A \$100.00 expense will be allocated for the development and production of hardcopy pre-test assessments with the post-test assessment available in the online module.

Program development + Pre-test assessment + Unproductive staff training= total cost

$$\$2,990.00 + \$100 + \$1,047.00 = \$4,137.00$$

Cost of care for a patient that is re-admitted into a rural hospital averages \$13,500.00 per patient visit with an average re-admission rate of 20.8% (Gerhardt et al., 2013). Utilizing the average cost and re-admission rate in comparison to the facilities allotted beds, the facility re-admitted patient care averages an estimate \$280,800 per year. Implementing the benefit-cost/ratio  $\$24,403/\$280,000 = 0.087$ . Based on a positive value and the total benefits exceed the cost, this is an indication that investing and implementing the health literacy program is feasible and beneficial. Revenue retained after the incorporation of successful training was due to the decrease in re-admission rates within 30 days. It provides a significant benefit for the program continuum within the facility and provides staff nurses with the skills and tools needed to effectively provide patient education based on a patient's health literacy level.

## CHAPTER IV

### Project Design

The following chapter will illustrate a plan to address the quality improvement project targeting the implementation of educational sessions to equip nurses with the knowledge and skills necessary to ensure effective health literacy support while caring for patients in the acute care setting.

#### Goals

The following goals and objectives will provide guidance towards the development of health literacy training to establish successful outcomes for staff nurses.

- **Goal One:** Provide registered staff nurses with background information on national initiatives that targeting health literacy improvement.
  - Objective: To increase health literacy awareness among acute care nurses through in-service small group sessions targeting weak health literacy assessments and cultural influences.
- **Goal Two:** Enhance the knowledge and skills of staff nurses to identify at-risk populations for low health literacy.
  - Objective: Implement pretest and posttest assessments to training attendees to evaluate proficiency and techniques demonstrated in the assigned sessions targeting health literacy among nurses.
- **Goal Three:** Identify and incorporate assessment skills used in the clinical setting to provide effective literacy education.
  - Objective: Incorporate small group sessions with nurses focusing on incorporating health literacy tools, communication techniques, and

assessment of body language into practice through pre-test and post-evaluation 1 month after in-service training has been completed.

### **Plan and Material Development**

Staff nurses will be asked to attend a 30-minute educational session on health literacy. During the session, the Staff Nurse Health Literacy PowerPoint (Appendix A) will be utilized to present the information to staff nurses. The PowerPoint is designed to be presented over 15-minutes. Prior to the PowerPoint presentation, each staff nurse will complete a Staff Nurse Health Literacy Assessment (Appendix B) and a Nurses Perception of Health Literacy Survey (Appendix C) to assess knowledge of health literacy. Both of these surveys were developed by the researcher for the purposes of this project. Thirty days following the training, staff nurses will complete the surveys again to determine the effectiveness of the training.

### **Timeline**

It is expected that this project will be implemented over 7 weeks (Appendix D). Week 1 consists of completing several daily in-service sessions during 30-minute intervals. During weeks 2-4, staff nurses will incorporate health literacy strategies into patient care practices, including the use of the Universal Health Literacy Assessment incorporated into the nurse flow sheet. During week 4, staff nurses will be asked to complete the Staff Nurse Health Literacy Assessment and Nurses Perception of Health Literacy Survey again. Week 5 will consist of comparing the pre-test and post-test surveys to determine if the training sessions were effective among staff nurses. Week 6 is designated to evaluate the success of health literacy among staff nurses using a Plan-Do-Study-Act (PDSA) to gauge health literacy outcomes.



## Budget

The projected budget requested for this training is based on the numerical values presented in Figure 2. A total of 75 nurses will attend 30-minute training sessions with each session allotting 10 participants per session. It is estimated that each staff nurse's hourly rate is approximately \$27.96. The annual competency module has a total funding allocation of \$4,000.00, with an estimate of \$2,990.00 being needed for development and implementation into the current employee net learning program. The remaining funds are reserved for program updates. It is anticipated that supplies will cost approximately \$100.00. This price includes nurses receiving hard copies of the Staff Nurses Health Literacy Assessment and the Nurse Perception of Health Literacy Survey. Hard copies of black and white ink printed forms average \$0.29/copy. Each participant will receive two forms averaging \$43.50 for hard copy forms. The remaining funds will assist with the cost of additional printouts as needed.

**Table 1**

*Anticipated Cost to Implement Project*

Account	Total Allocated	Fixed Amount	Total
Nurse Salaries <i>75 participants at \$13.96 (per hr. wage/ 0.50 minutes)</i>	\$1,500.00	\$1,047.00	\$1047.00
Annual Competency Module	\$4,000.00	\$2,990.00	\$2,990.00
Supplies <i>Printed materials for evaluation</i>	\$100.00	\$100.00	\$100.00
Total	\$5,600.00	\$4,137.00	\$4,137.00

### **Evaluation Plan**

During the evaluation phase, several components will be reviewed to determine if health literacy trainings were effective among staff nurses and being applied in practice with patients. The Plan-Do-Study-Act (PDSA) tool (Appendix E) will be utilized to determine if the desired outcomes were fulfilled. This PDSA targets how effective the information sessions were among staff nurses and provides progress for enhancement if desired. Another tool to determine if nurses are providing effective patient teaching would be Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey questions that concentrate on patient education and if the patients were provided educational information, they were able to understand.

## **CHAPTER V**

### **Dissemination**

This chapter gives a review of the dissemination activity, the limitation of the project, the implications for nursing, and future recommendations. The primary purpose of the project was to equip nurses with the knowledge and skills to provide effective health literacy support in their practice.

#### **Dissemination Activity**

This project was presented to unit managers, departmental directors, and randomly selected staff nurses in a walk-through event. Each invited colleague received an overview of the proposed in-service training sessions, and materials were emailed individually per request. The majority of administrators agreed with the proposal stating, rural community hospitals should implement health literacy training for staff nurses. The unit director requested additional information to incorporate this in-service into the new graduate mentoring program. The overall presentation was successful with providing health literacy awareness among nurses to nursing administration for quality improvement among nurse practice patient care.

#### **Limitations**

During the development of this project, the initial format model consisted of a more informative environment that focused on group engagement and activities for several hours. As the project progressed, it was noted that the benefit of such information was needed; however, should be provided in smaller sessions with 30 minutes allotted per session targeting an in-service presentation versus the classroom setting. In developing this project, limitations that should be noted are poor patient feedback and staff

turnaround. The patient perspective is important during the implementation and evaluation phase of the project. Providing skills and knowledge to staff nurses regarding health literacy and proper assessments was the target goal; however, determining if the patient has a deeper understanding of their care and disease are determining factors of whether the nurses' assessment and patient teaching was effective. The patient population associated with the assigned facility provides little feedback on hospital performance. This project was developed during the COVID-19 pandemic leading to national nurse shortages. The staff included in this project would consist of permanent and temporary nursing staff. Completion of the initial in-services would be beneficial; however, challenges may be presented during the evaluation phase with collecting accurate data due to staff turnaround of new assignments.

### **Implications for Nursing**

Implementing health literacy programs and in-services trainings for nurses provides educational opportunities to strengthen health literacy skills and knowledge that can increase patient outcomes. With the proper technique and education focusing on literacy assessment skills, nurses can develop a unique education plan for each patient they encounter. Incorporating health literacy in-service trainings and programs into routine nurse practice supports nurses to provide authentic patient-centered care.

### **Recommendations**

Health literacy among staff nurses is a problematic concern that should be approached collectively by the healthcare system, public health system, and the education system. In current practice, there are limited resources and guidelines to navigate health literacy assessments and communication skills for staff nurses. Implementing simple

communication techniques and educating nurses on the importance of health literacy when corresponding with patients, increases patient's awareness of their health and promotes successful health outcomes. This process also improves confidence in patient care and assessment skills among nursing staff. Additional research is needed to target assessment skills and knowledge of health literacy in the acute care setting among nurses. National standards for health promotion and education should be incorporated to promote a universal health literacy system that nursing staff are familiar with.

### **Conclusion**

Poor health literacy has been linked to negative health outcomes among acute care patients. Many of which have been due to the patient's lack of understanding of their health conditions and diagnosis. Providing staff nurses with the proper skills, techniques, and education targeting health literacy assessments increases nurse's confidence in patient care and establishes a foundation of education for the patient based on their health literacy level. This process starts with organizations taking the initiative to equip nurses with the training and skills needed to provide educational information to patients based on their health literacy level. With the introduction of health literacy among the nursing staff and incorporating skills to increase health literacy awareness in the acute care setting, every patient will receive an education based on their level of understanding versus the presumed stigma that all patients have the same health literacy level.

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## Appendix A

### Staff Nurse Health Literacy PowerPoint

INCREASING HEALTH LITERACY AMONG NURSES

PRESENTED BY  
CHELSEA L.  
OXENDINE, RN



**HEALTH LITERACY:**  
What Is It and Why Is It Important?


## WHAT DOES HEALTH LITERACY MEAN?

"the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions."

Somers & Mahadevan, 2010, p. 7


## PATIENT'S CONNECTIONS WITH HEALTH LITERACY

- Became a targeting focus for health care in the early 2000's
- Patients with low health literacy levels experience more adverse outcomes.
- Patient demographics: low income, limited education, cultural, and religious influences
- Patient depend on family to help with forms & provide medical information



## CONTRIBUTING FACTORS

- Limited exposure to health literacy screenings
- Health care providers assume all patient have the same level of health literacy
- Nurses provided limited education based on "gut feelings" vs. health literacy score.
- The Famous "Do you understand?" question.
- Nurses focus on completion of nurse task vs. patient-centered care.
- Fail to provide a shame-free environment
- Avoid additional assessments beyond what is "REQUIRED".

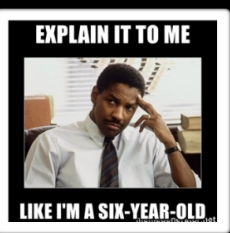


Nurses are patient advocates  
Nurses focus on patient education

## NURSES ARE PERFECT FOR INCREASING HEALTH LITERACY

## NURSING INTERVENTIONS TO IMPROVE HEALTH LITERACY

- Avoid medical jargon
- Use plain language
- Ask the patient, "How do you learn?"
- Limit information dumping
- Incorporate open-ended communication into practice with patients
- Ask me 3
- Present information a child could understand.
- Assume your patient has a HL score of "0".



## NURSING INTERVENTIONS TO IMPROVE HEALTH LITERACY (CONT.)

- Organize information with the most important points first
- Breaking down complex information into pieces that are easy to understand.
- Using language that is simple and offering a definition of any technical terms.
- Presenting information in an active and interested voice



"Ask me three questions about your care, medicines, or diagnosis."

## Appendix B

### Staff Nurse Health Literacy Assessment

1. Health literacy is defined as:
  - a. The ability to read and write, identify, understand, interpret, create, communicate, compute, and use printed, and written materials associated with varying context.
  - b. An individual's capacity to obtain, process, and understand basic information and services needed to make appropriate decisions regarding their health.
  - c. The ability to identify what information is needed to understand how information is organized, identify the best source of information for a given need, locate those sources, evaluate the sources critically, and share the information.
  - d. The knowledge and ability to use computers and related technology efficiently, with a range of skills covering levels from elementary use to programming and advanced problem solving.
2. What are some of the potential health outcomes for patients with low health literacy? (Select all that apply)
  - a. Decrease in hospitalization rates.
  - b. Increase use of emergency services.
  - c. Difficulty understanding verbal and written medical documentation.
  - d. Inability or difficulty following medication guidelines.
  - e. Good health outcomes
3. Which of the following tool is commonly implemented to assess health literacy?
  - a. DDST
  - b. BCRT
  - c. REALM-R
  - d. DRETT
4. Which of the following behaviors are signs of a weak health literacy score?
  - a. Patient can provide names of their medication and explain the reason the medication was prescribed.
  - b. Patient is compliant with medication regimens.
  - c. Patient has difficulty completing medical forms and misses appointments frequently.
  - d. Patient attends all referral appointments.
5. Which of the following strategies are for educating patients with weak health literacy? (Select all that apply)
  - a. Use short sentences and simple wording on a 4<sup>th</sup>-6<sup>th</sup> grade academic level.
  - b. Avoid the use of pictures.
  - c. Focus on key points first.
  - d. Be observant to cultural preferences.
  - e. Incorporate information about anatomy, physiology, and disease statistics.

*This survey was developed by the researcher to evaluate nurse knowledge and skills related to health literacy for the purposes of this project.*

## Appendix C

### Nurses Perception of Health Literacy Survey

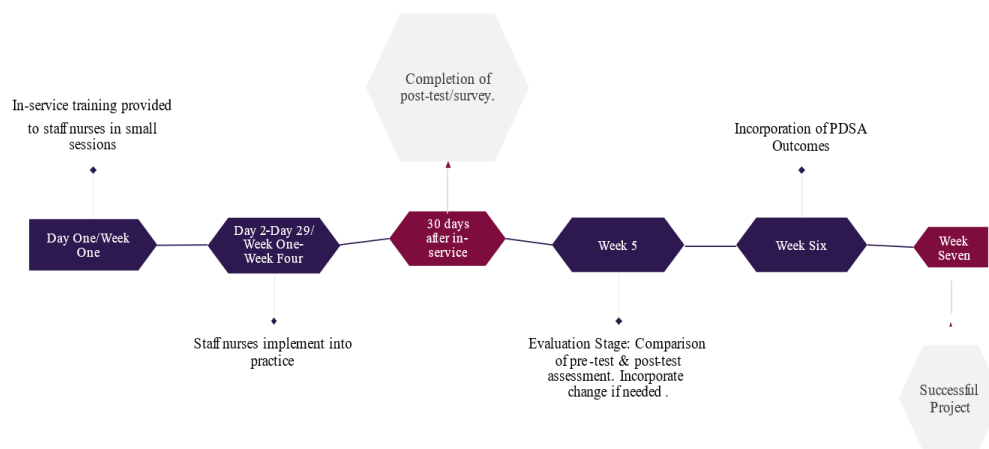
Items	None/a little	A moderate amount	A great deal
To what degree does low health literacy interfere with your patient's ability to:			
Understand health information.			
Obtain appropriate health services.			
Follow through on recommended treatments.			

How often do you	None/Rarely	Sometimes	Often/Always
Ask a patient if they understand instructions or have any questions.			
Ask a patient if they have difficulty reading medical information or completing medical forms			
Ask a patient for the last grade they completed.			
Have a patient repeat instruction back to you			
Formally assess health literacy with a validated questionnaire			
Use your "gut feeling" as a clinician to assess health literacy.			

*This survey was developed by the researcher to evaluate nurse knowledge and skills related to health literacy for the purposes of this project.*

## Appendix D

### Project Timeline



## Appendix E

### Plan Do Study Act Model

The Plan-Do-Study-Act (PDSA) cycle will be implemented in the study to evaluate the effective measures of health literacy assessments among nurses. The study is still under evaluation and observation stage of the process.

**I. Plan:** Plan the test, including a plan for collecting data.

#### **Inquiry and Attention Reference**

- Provide staff nurses with informative health literacy in-service trainings focusing on effective nursing health literacy assessments targeting patients learning abilities and providing education based on that ability.

#### **Proposal and Procedures**

- Implement in-service trainings with staff nurses during 30-minute sessions.
- Provide nurses with educational tools to properly assess patient's health literacy level.
- Provide nurses with annual competency or refreshers on continued education.
- Encourage staff nurses to implement informative tools into practice.

**II. Do:** Run the test on a small scale.

- Carry out the above noted proposal for a scheduled 30 days after completion of in-service.
- Document problems and unexpected observations during the implementation phase.
- Collect and begin to analyze the data for program enhancement.

**III. Study:** Analyze the results and compare them to your predictions.

- Complete, as a team, if possible, analysis of the data.
- Compare the data to prediction.
- Summarize and reflect on what was learned.

**IV. Act:** Based on what was evaluated from the test, plan for the next step.

- Adapt (make modifications and run another test), adopt (test the change on a larger scale), or abandon (do not do another test on this change idea).
- Prepare a plan for the next PDSA.

*Resource: (Institute for Healthcare Improvement · ihi.org QI ESSENTIALS TOOLKIT: PDSA Worksheet)*