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Staff Education for Registered Nurses Using the Teach-Back Method

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Walden University

College of Health Sciences

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Mary Sizer

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Walden University

2018

Abstract

Staff Education for Registered Nurses Using the Teach-Back Method

by

Mary E. Sizer

MS, University of Phoenix, 2010

BS, Widener University, 2004

Project Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Nursing Practice

Walden University

August 2018

Abstract

This purpose of this quality improvement project was to develop an educational training curriculum designed for staff nurses to use the teach-back method with patients with low health literacy during discharge instructions. Health literacy is associated with the ability to read, comprehend, and make appropriate healthcare decisions; the teach-back method asks patients to restate or explain health information in their own words, aiding retention and literacy. Effective staff education plays a critical role in the education of patients during discharge teaching: Nurses must help to ensure that patients and their families understand healthcare information and apply this information in their daily lives. The program was planned in an ambulatory care setting and used conceptual frameworks including the Iowa model and the Plan-Do-Study-Act cycle for quality improvement. The program was informed by evidence in the peer-reviewed literature. The curriculum was contextualized by needs of the care setting. The evidence was organized and analyzed using a review matrix to identify common findings among major studies that were applicable to the context. As an aid to operationalization of the program, an implementation plan and an evaluation plan were developed for use by the institution to move the program forward without additional planning. This project may effect positive social change by addressing a health care need that exists throughout the population and is prevalent in those of lower socioeconomic status. Increasing health literacy among patients is likely to promote improved health outcomes among those who are most vulnerable to illness.

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Dedication

This project is dedicated to my parents for giving me an incredible childhood, instilling great values and morals while providing a heartfelt foundation on which to build my future. Their loving kindness and support has made me the person that I am today. I honor them for all that I am and all that I will become in the future. I've like to thank my parents; Philip Bartholomew and Bernice Elizabeth Murray for an amazing life. I will be eternally grateful.

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Section 1: Nature of the Project

Over the past two decades, there has been an increasing interest on the effects of low health literacy on healthcare outcomes. Nurses are unable to discern the literacy levels of patients or their caregivers by sight, which may often result in patients with low health literacy skills having difficulty understanding their written healthcare information. This results in their inability to perform healthcare tasks such as adequately reading, understanding and applying healthcare information in their daily lives. In order for staff nurses to fully capture a patient's learning potential and deliver accurate patient education, they need to determine if any barriers to learning exist prior to discharge teaching. According to Paasche-Orlow et al. (2005), health literacy is the degree to which an individual has the ability to obtain, process, and comprehend basic healthcare information in order to make the appropriate healthcare decisions. According to the Institute of Medicine (IOM; 2004) other components of health literacy include a person's understanding of basic health information and the capacity to interpret written documents, read, write, and use quantitative (numeric) information. A person needs to be able to speak and listen effectively in order to apply newly learned healthcare information into their daily lives. Nurses need to ensure that patients with low health literacy understand exactly what they need to do to be successful with their homecare management. The educational program in this project will allow staff nurses an opportunity to explore patients' perceptions of the most effective and preferred method of accomplishing this, while utilizing the teach-back method to assess their understanding of medical information. There have been numerous studies conducted that have shown a

direct correlation between low health literacy skills and poor healthcare outcomes, especially with chronic health conditions such as asthma, diabetes and heart disease. This problem of poor health literacy is currently reaching epidemic proportions in the United States (Healthy People 2020, 2010). An evidence-based practice strategy, which has been documented by the Iowa Healthcare Collaborative (2013) to address this problem, suggests the use of the teach-back method to effectively increase the ability of patients with low health literacy to recall and retain healthcare information.

Currently, approximately 47% of Americans or an estimated 90 million people who have difficulty understanding written healthcare information (Kornburger, Gibson, Sadowski, Maletta, & Klingbeil, 2013). A report from both the National Quality Forum and The Joint Commission endorses the use of the teach-back method to evaluate whether the patient clearly understands their discharge and medication instructions. It is preferred that patients repeat in their own words the verbal instructions given while performing a return demonstration. The return demonstration substantially increases their understanding, retention, and recall and increases their adherence to their discharge and medication regime. Since nurses are at the forefront of patient care, they are able to identify if patients are experiencing any challenges related to their discharge teaching and incorporate additional educational interventions. Using the teach-back method can better prepare patients for their medical home care management. In this section of the project I identify the problem of low health literacy and provide the project's purpose statement, objectives, and significance to society, the healthcare system, and the overall healthcare outcomes of patients.

Problem Statement

Low health literacy has been determined to be directly related to poorer healthcare outcomes across a wide range of patient populations (Kendig, 2006). This problem is reaching epidemic proportions in the United States to date (Healthy People 2020, 2010). A review of the literature indicates that there are approximately 100 million Americans (36%) whom have basic or below basic literacy skills (Hixon, 2002). The literature acknowledges the estimated cost of low health literacy to be \$75 - \$100 billion dollars a year within the United States (Mayer & Vallaire, 2004). Individuals with low health literacy skills are often unable to take the necessary preventive care measures in order to avoid illness and disability. Patients with chronic healthcare conditions such as asthma, Diabetes, and heart conditions have a higher rate of hospitalizations, repeated emergency department visits, missed follow-up appointments, and prolonged complications due to the correlation between their inadequate health literacy skills and their difficulties learning and retaining healthcare discharge and medication regime instructions (Attwood, 2008). Patients with low health literacy are less likely to seek preventable measures to assist in the reduction of illness and disability (Benjamin, 2010). Multiple factors and barriers play integral roles in the health deficiencies of patients with low health literacy. As a result, millions of individuals suffer annually from adverse healthcare outcomes such as physical disability, noncompliance with medication regime, repeated or prolonged hospitalizations, or even death (Pignone, DeWalt, Sheridans, Berkman, Lohn, 2005). The problem addressed in this project is that patients with low health literacy have a higher incidence of negative healthcare outcomes due to their inability to comprehend

written information (Attwood, 2008). These vulnerable populations of patients require the additional use of communication strategies to assist them to recall, retain, and apply healthcare information into their daily lives.

Purpose Statement

Low health literacy skills have been identified as having a direct correlation to poorer healthcare outcomes. The Centers for Medicare and Medicaid Services place great emphasis on ensuring that patients are properly educated in order to perform self-care management. After a review and appraisal of relevant evidence, using the teach-back method will provide a stronger impact on improving the retention, recall and understanding of written healthcare instructions for patients with low health literacy. Healthy People 2020 (2010) have adopted health literacy as one of their top goals for their national health and disease prevention initiative. The National Action Plan seeks to engage organizations in a collaborative to improve low health literacy which aligns with the goals of Healthy People 2020 to ensure that everyone has access to healthcare services that are delivered in a manner that they can understand and will help them make appropriate informed decisions. Kendig (2006) contends that low health literacy results in an inadequate health status due to less patient knowledge regarding their condition and treatment options. The complexity of this problem is evident in a wide range of health disparities, one example being the number of asthmatic patients who have repeated hospitalizations, frequent exacerbations, and multiple office visits to their primary care physician. Paasche-Orlow et al. (2005) reported that asthma currently affects 5% to 10% of the American population and improvements are needed in discharge education to

decrease the health disparities related to low health literacy skills. The purpose of this quality improvement project is to develop an educational program to train nurses in an ambulatory care setting to use and reinforce the teach-back methods in teaching patients with low health literacy.

Goals and Outcomes

The primary goal of this project is to educate the nursing staff to teach and reinforce the use of the teach-back method to assess patient recall and retention ability of healthcare information. Kripalani, Bengtzen, Henderson, & Jacobson (2008) agreed the use of the teach-back method improves patient outcomes because it enriches patient communication and validates their understanding. The outcome is to ensure patient understanding using “teach-back as a method for education confirmation. A positive outcome is confirmed when patients can correctly recall and restate the medical information to the nurse. This method may also be referred to as “closing the loop” or the “show me” method. In an effort to meet the project goal and outcomes to improve the healthcare status for this vulnerable population, an educational in-service will be developed for the nursing staff on the use of the teach-back method and delivered during scheduled monthly educational sessions for 6 months. The educational in-services will include necessary tools to alert them of an individual’s limited literacy skills. They will learn how to apply various strategies, interventions and communication techniques to reinforce patient discharge teaching. Since many healthcare professionals are unprepared to assist patients to overcome their shame and guilt associated with low health literacy skills, the nurses will use plain, simple language during discharge teaching. Once nurses

identify patients who are having difficulty recalling their healthcare information, the benefits of using the teach-back method will overwhelmingly improve their compliance with their healthcare management (Avşar & Kaşçıki, 2011). My hypothesis with this project is that by teaching nurses to use the teach-back method, it may significantly improve patient literacy skills and reduce the associated healthcare cost when treating patients with low health literacy.

Significance of the Project

Nurses play a pivotal role in patient education because they are at the forefront to deliver the necessary information needed for patients to make lifestyle modifications and manage their health. The economic consequences of treating patients with low health literacy are staggering and continue to rise daily. The estimated cost for treatment of patients with low health literacy is \$50 to \$73 billion dollars annually in the United States healthcare system (Mayer & Vallaire, 2004). Caring for patients with low health literacy skills is a daunting task but for patients with chronic health problems, their inability to comprehend and follow instructions and make appropriate healthcare decisions could result in severe complications or even death. However, they can be taught how to manage and control their conditions with proper training and education tailored towards their individual needs. Chronic health conditions affect an estimated 300 million people in the United States according to the Centers for Disease Control and Prevention (2013). Asthma, diabetes and heart conditions are among the most prevalent health conditions noted. Many patients report their inability to control, reduce, or eradicate their repeated symptoms due to their lack of understanding of their medication regime and written

discharge or follow-up instructions. Because health literacy involves the ability to read, comprehend and make appropriate decisions, it is imperative for patients to understand how to manage their symptoms and maintain healthy outcomes. Recently, there has been increased acknowledgement of the correlation between poor healthcare outcomes and adverse reactions as a result of the lack of patient education (Bartleson, 2009).

According to Mayer & Vallaire (2004), there are clear deficiencies in the skills necessary to understand and apply health-related materials and information such as patient education forms, medication directions, consent forms, or discharge instructions. Healthcare management requires understanding of both verbal and written healthcare information, which is critical to maintaining overall health (Benjamin, 2010). The teach-back educational program includes various methods for nurses to use to accommodate different learning styles, such as including real-life scenarios, role play, and auditory, visual, and kinesthetic examples. These features will assist in “closing the loop” and simulating patient interaction. According to Kessels (2003) 40%-80% of information given to patients are forgotten immediately or remembered incorrectly. Nurses must be able to give patients feedback in a nonjudgmental environment. Patients must also be able to navigate through the complex healthcare system in order to obtain necessary information to be sufficiently capable and empowered to self-manage their healthcare needs. Unfortunately, many patients with low health literacy are simply unable to translate the written healthcare information into tangible self-care behaviors (Attwood, 2008). A review of one study indicated that a contributing factor in the number of repeated hospitalizations, frequent emergency department visits, and multiple office visits

was a patient's inability to follow their medication directions. Low health literacy is widely associated with the lack of medication compliance due to patient's inability to understand and act on the written directions (Vernon, Trujillo, Rosenbaum, & DeBuono 2003). Researchers have identified that among the ambulatory population, patients with low health literacy are at a higher risk for making medication errors or practicing medication noncompliance due to their inability to understand written directions and act accordingly (Purnell, Osborn, Richard, Skripkauskas, & Wolf 2007). The noncompliance of discharge instructions, medication regime, and appropriate healthcare management has a direct correlation to increasing healthcare costs. Healthcare costs associated with this vulnerable population are expected to continue to skyrocket unless this epidemic issue is addressed broadly (Vernon et al., 2003). The incidence of low health literacy is not dependent on socioeconomic status, race, culture, or age; it can affect people from all walks of life but is particularly devastating for patients with chronic illnesses. According to the National Adult Literacy Survey (NALS) 2003 report (Kutner, Greenberg, Jin, & Paulsen, 2006), individuals with low health literacy had difficulty reading material with context-specific or unfamiliar terminology and concepts. Another notable contributing factor included the disparity between the individual's reading level and the reading level required by most printed healthcare educational materials. Studies have shown that patients with a fifth-grade reading level or below are considered as having low health literacy (Hixon, 2002). Low health literacy has no respect of person; however, it does impact minority populations, elderly, and non-English speaking patients disproportionately (Hixon, 2004). According to Keller, Wright & Pace (2008), the

majority of written healthcare information is written at a ninth-grade reading level. This could lead to a patient's lack of adherence with their medication regime, missed follow-up appointments, medication errors, and unwarranted fears regarding their health conditions (Mayer & Vallaire, 2004).

Implications for Social Change

The social implication of low health literacy skills is multifaceted; it impacts a person's employment and healthcare status and reduces opportunities for lifelong learning and professional development. Low health literacy skills may often become intergenerational if not addressed. With regard to its impact on health, patients with low health literacy, such as those with chronic conditions, may have difficulty following their medication regime and adhering to their discharge plan due to their lack of understanding of the written information. By having staff nurses educate patients using the teach-back method during discharge instructions, there is an opportunity for them to gain a broader perspective regarding the factors that could affect learners outside of the healthcare arena. For example, patients with low health literacy who are unable to be actively involved in their own healthcare may face social disapprobation. The consequences of low health literacy may be harmful in numerous ways and must be addressed broadly. There needs to be a national mandate that addresses the issue of low health literacy and its impact socially, economically, and individually. If the issue is not addressed, the 89% of individuals with low health literacy skills will continue to have difficulties on how to understand, function and navigate through the complexities of the healthcare system (Kutner et al., 2006).

Caring for patients with low health literacy skills is a challenging task; however, it is the burden of healthcare providers to ensure the delivery of healthcare information in a way that will provide optimal patient understanding for the self-management of their medical condition. Currently, the estimated cost of treating patients with low health literacy skills is estimated to be \$75 - \$100 billion annually; however, if no action is taken to resolve this public healthcare problem, the costs could rise to between \$1.6 trillion to \$3.6 trillion annually according to Howard et al. (2005). The associated cost of low health literacy can be reduced significantly once strategies are developed for nurses to provide written healthcare information using clear and simple language and the teach-back method during discharge teaching. It is imperative that healthcare policy makers collaborate to develop interdisciplinary healthcare policies that standardize written healthcare information in plain and simple language with the inclusion of pictures and other visual aids, as well as incorporating the teach-back method to improve patient comprehension and recall of instructions. Nurses should play an integral role in the development of such a quality improvement project.

Conceptual Framework

There are several theories that could be utilized as the basis this project. One would be Lewin's change theory. Lewin's theory describes a 3-step model which involves the process of unfreezing, changing and refreezing of educational information on how patients may incorporate healthcare information into their daily lives (Shirley, 2013). Nurses encounter patients who carry the stigma of shame and guilt due to their low health literacy skills daily. Therefore, putting the patient's needs first and tailoring

the education according to the patient's learning style would be consistent with best practices in the delivery of quality patient-centered care. The presentation of a personalized education plan may decrease the anxiety that many patients with low health literacy skills have during teaching sessions. They may be more likely to ask clarifying questions related to their discharge instructions. When written information is presented using the teach-back method with the incorporation of Lewin's theory, patients will be able to improve their health literacy skills and become empowered to manage their health conditions.

The integrated theory of health behavior change suggests that the patient be provided with various interventions, such as the teach-back method, to enhance and improve their health knowledge and skills (Ryan, 2009). Under such conditions, patients are empowered to engage in the management of their healthcare conditions. Orem's self-care deficit theory proffers that improved knowledge and recall ability will aid patients in their ability to change their beliefs regarding their low health literacy and self-regulate their healthcare behaviors, thus improving their overall healthcare outcomes.

Since communication plays an integral role in teaching patients with low health literacy, utilizing the most appropriate teaching method to help patients translate healthcare information into their daily lives for the promotion of self-care is paramount. Orem's theory validates using the teach-back method to improve healthcare outcomes for patients with low health literacy skills. This was verified by Wilson, Baker, Nordstrom, & Legwand (2008) based on their work assessing the relationship between parents' ability to comprehend and communicate the homecare management for their child after

the child received immunizations. The assessment of the parents' health literacy validated the successful translation of information needed to care for their child.

Definition of Terms

The principle terms used throughout this quality improvement project are:

Health literacy: The ability to obtain, process, and understand basic healthcare information needed to make appropriate healthcare decisions (Agency for Healthcare Research and Quality [AHRQ], 2010). The American Medical Association (AMA; 1999) defined health literacy as a person's ability to read and understand essential healthcare information in order to apply it to achieve optimal healthcare outcomes.

Literacy: The ability to read and write and use language proficiently (Kurashige, 2008).

Self-efficacy: A person's ability to accomplish a desired behavior (Keller, Wright & Pace, 2008).

Teach-back: Method used to confirm that the patient understands the instructions given and has the ability to recall or restate the information in their own words (Schillinger et al., 2003).

Adherence: The extent to which the patient continues the agreed upon mode of treatment under limited supervision when faced with conflicting demands (Benjamin, 2010).

Health: The state of being bodily and mentally vigorous and free from disease or illness (Benjamin, 2010).

Communication: The exchange of thoughts, messages or information, as by speech, signals, writing or behavior (Williams, Davis, Parker, & Weiss, 2002)

Assumptions

The following assumptions were made in undertaking this quality improvement project.

- It can be assumed that nurses may have obtained previous knowledge regarding the principles of teach-back; however, they were not using them during patient education, particularly with those with low health literacy skills.
- Patients with low health literacy should be able to recall information once it is given and be able to recall, retain, and apply it to their daily lives. Further instructions to provide additional education will be more time consuming in order to individualize their education.
- It is the patient's right to be educated with the appropriate education required to manage their health and wellness; this is an integral role of the nurse.

Limitations

The limitation of this project may be the ability of the nurses to use and reinforce the teach-back method accurately with all patient/family interactions during educational sessions. Initially, nurses may feel they need more time to incorporate the teach-back method into the discharge teaching plan, until they become familiar with the process. Because patients with low health literacy often develop various coping mechanisms, nurses must be educated to be able to identify the clues that may indicate a literacy

problem. Although some nurses may allow their own personal biases to interfere with their teaching or they may become frustrated because the patient cannot grasp what they are trying to teach them, they should be reminded of why they became a nurse: to help patients during vulnerable times and give them the care and the guidance that they need to successfully fulfill their healthcare goals. The evaluation of patient outcomes may be skewed based on the nurses' documentation of the teaching session. Nurses may need additional time to ensure proper use and reinforcement of the teach-back method.

According to Farrell, Kirkville, Eskra, Christopher, and Brienza (2009), it has been noted that once the nursing staff becomes familiar with the technique, teach-back typically only increases teaching time by a few minutes. The sample size, which will be patient dependent due to their health literacy level, could be a potential variable or limitation in this project. However, if the teach-back method is not used on this vulnerable population of patients, there will continually be increased healthcare costs, poorer healthcare outcomes, and patients will suffer prolonged or lifetime complications. The feedback from the proposed evaluation forms may be used to determine whether more studies need to be conducted to validate the impact of teach-back on patient discharge education.

Summary

Low health literacy is reaching epidemic proportions in the United States (Healthy People 2020 (2010)). The cost of caring for those patients is increasing. Interventions such as the development and utilization of a nursing educational program on the teach-back method needs to be mandated and disseminated throughout healthcare systems. It is imperative that healthcare professionals respond to the need to create a

health literate society. Healthcare organizations locally, regionally, and nationally need to take an active role in participating in education, research, and promotion to improve written healthcare information for better patient comprehension and understanding and incorporating the teach-back method into all educational patient teaching and training. Key stakeholders need to embrace interventions that will mitigate patients' low health literacy skills by removing literacy barriers (Wynia & Osborn, 2010).

Section 2: Review of Scholarly Literature

The purpose of this evidence-based project is to develop an educational program for registered nurses to use to reinforce education during discharge for patients with low health literacy. Registered nurses are tasked with providing accurate health information to patients in order for them to achieve optimal comprehension and understanding required to self-manage their healthcare needs and condition. However, patients with low health literacy often have difficulty performing this task and struggle with following written healthcare information. Unfortunately, this leads to poorer health outcomes and also decreases their ability to seek preventive measures in order to maintain health and wellness. In this section of the project I examine scholarly literature regarding how using teach-back can reinforce discharge information provided by nurses for patients with low health literacy in order to improve overall patient health by increasing their comprehension of written healthcare information.

Literature Search

I conducted the search for literature electronically using various databases: CINAHL, Medline, PubMed, EBSCO, and Cochrane Library. Articles older than 10 years were discarded unless they contained hallmark research for which clinical advancements were noted. The terms used for the literature search were *health literacy*, *health promotion*, *self-management*, *communication*, *teach-back*, *self-care*, or *self-management patient education*, *nursing education*, *discharge education*, *discharge teaching*, and related terms. In order to retrieve a larger volume of articles, Boolean

“and” and “or” were used between the other words. Searching the following terms provided 65 articles relevant to this topic.

Teach-Back Method

The teach-back method is used to confirm that the healthcare provider explained the healthcare information in a manner that allowed the patient to understand the instructions, which is evidenced by the patient’s ability to recall or restate in their own words the information and can apply it in their daily lives (Schillinger et al., 2003). Literacy can be defined generally as the ability to read, comprehend, and apply written information, whereas literacy in the context of healthcare involves the ability to read, understand, and apply essential healthcare information in order to achieve positive and sustained healthcare outcomes. The absence of confident health literacy can negatively affect a patient’s health outcomes and hinder their ability to take preventive measures to reduce further complications related to their healthcare conditions.

Teach-back is a communication method used with patients who have low health literacy skills. Teach-back offers an opportunity to tailor patient education using various teaching strategies to improve comprehension and recall. This process allows for active communication between the patient and the healthcare provider to assure focused and specific instructions are given that will enhance the learner’s understanding of the concepts being explained. Providing substantial patient education is pivotal for healthcare providers; however, it is not without its challenges and constraints (Keller et al., 2008).

Kemp, Floyd, McCord-Duncan, & Lang (2008) argued that there is clear evidence that a large portion of patients often leave their primary care doctor’s office, hospitals, or

emergency departments with a poor understanding of their diagnosis, discharge instructions, and recommended follow-up treatment due to their low health literacy level and lack of dedicated teaching or education regarding their condition. Kemp et al. (2008) conducted a survey that asked patients to explain the healthcare information recently provided to them by the doctor in their own words. Most patients were only able to recall 46%–63% of the information. It was noted that their recollection included gaps and errors from the initial instructions.

Various studies have been conducted to prove the benefits of using teach-back to improve patient's recall ability of healthcare information (AHRQ, 2010). A study conducted in England contributed 80% of the misunderstanding of patient instructions to their ability to retain information given during the consenting process for mammoplasty. When asked about their pre procedural instructions, they only recalled 25% of the correct information (Kessels, 2003). However, communication alone is not the only solution to this complex, evolving public health problem. Individualized care plans need to be developed and enforced utilizing a variety of teaching modalities to improve the understanding and applicability of healthcare information. Although the literature indicated a high prevalence of patients with low health literacy as well as the increasing cost associated with treating those patients, most healthcare providers do not assess their patient's literacy level nor do they check for understanding of the medical information provided. Healthcare costs have risen to approximately \$75- \$100 billion annually in the United States and rapidly increasing (Webster, 2011). The estimated cost of medication nonadherence alone is \$7.6 billion annually, which is a significant contributing factor in

the rising cost of healthcare and is often due to patients' low health literacy. Having the ability to dramatically reduce these costs could provide enough savings to deliver healthcare to approximately 47 million uninsured individuals (Vernon et al. 2009).

Specifically, teach-back allows for opportunities of both the patient and family to ask clarifying questions to improve their understanding of the healthcare condition, and if any deficiencies in the teaching are identified, they can be addressed immediately, and the education can be restated if needed. The teach-back method should be used with every patient during teaching sessions, regardless of a patient's literacy level. Teach-back will assist in the achievement of the intended teaching goals: enhance patient recall and improve comprehension, allow for better self-care management, decrease the number of medication errors, and increase patient satisfaction. In addition, patients will learn to become empowered to improve their health and wellness outcomes.

There are several literacy tools available to measure health literacy; some are used to measure reading and comprehension while others address word recognition or terminology. However, the limitations for most of the tools are that they are geared towards individuals 18 years or older (Teach back, 2011). Few studies have been conducted to assess health literacy in younger populations, specifically in an ambulatory care setting. To date there has not been any measurable testing on how individuals understand and apply health information, which is a critical criterion of health literacy (Keller et al. 2008).

Schaefer (2008) conducted an integrated study on patient literacy and learned that 36% of Americans have basic or limited health literacy skills. The study examined a

variety of different health literacy interventions. The primary results indicated the patient's ability to understand, process, and apply healthcare information regarding self-care and their ability to adhere to the medical regimen is contingent upon clear communication and the ability to ask clarifying questions when needed.

Recommendations were made that healthcare information should be written at a lower grade level with plain and simple terms. Schaefer (2008) indicated that further research is required in order to assess the effectiveness of the suggested health literacy interventions and strategies studied. It is imperative that nurses are at the forefront in the development of evidence-based interventions to meet the needs of patients with low or limited literacy skills.

Because low or limited literacy contributes to a major portion of the health related problems in the United States, studies suggest nurses should be instrumental in the implementation of clinical interventions or strategies that will improve the readability of health-related educational materials for patients and their families (Kornburger, C. et al., 2013). Wilson et al. (2008) indicated that parents with low health literacy skills have devastating effects on their children's health, and this problem is being largely ignored. More research needs to be conducted to address this problem.

Weiss, Mays, & Martz (2005) developed a quick and accurate screening tool for both English and Spanish speaking individuals with limited health literacy skills. The new instrument is called the Quick Assessment of Literacy in Primary Care: The Newest Vital Sign (NVS). This new instrument was administered to individuals with low health literacy in conjunction with the Test of Functional Health Literacy in Adults (TOFHLA)

(Weiss “et al.”, 2005). The results of the NVS supported previous findings that individuals with limited or low health literacy skills were less knowledgeable concerning their medical conditions and had difficulty applying basic healthcare information in their daily lives in order to make appropriate health-related decisions (Weiss et al., 2005).

The strength of the NVS tool is that it can be easily administered to patients in 3 minutes by healthcare professionals. Of the 500 individuals tested (250 English speaking and 250 Spanish speaking) the results have been proven reliable, valid, and accurate, as was the correlation with TOFHLA scores for assessing low or limited health literacy within a primary care settings (Weiss et al., 2005). However, the limitations were that the new instrument was not tested against the full version of the TOFHLA, and further examination is needed.

In a longitudinal research study conducted by Weiss (2007), the researchers debated the various factors that contributed to patients’ recall and satisfaction in the way that healthcare education was communicated and whether patients were able to apply the information correctly. The authors noted that simply because the education was delivered, it did not mean that it would be retained (Weiss et al., 2005). Healthcare professionals should not assume that the education delivered will be immediately translated into improved healthcare outcomes for patients. As nurses use the teach-back method during educational sessions, there will be consistent opportunities for increased effective provider/patient communication. Although nurses provide a multitude of patient education in various situations, sometimes it may be difficult to ensure that patients comprehend sufficiently to apply the instructions in their daily lives. Subsequently, when

all aspects of the education are successful, a patient's comprehension and recall retention abilities are enhanced. Patients feel empowered, having learned how to apply the instructions to improve their healthcare status (Wilson et al. 2008).

Betz, Ruccione, Meeske, Smith, & Chang (2008) conducted a quantitative study that identified health literacy as a pediatric nursing and public health concern. Low or limited health literacy contributes to a major portion of the health related problems in the United States. The study indicates that a low parental health literacy skill has had devastating effects on children's health, and the problem is being largely ignored. One of the recommendations from the study suggests nurses implement clinical interventions or strategies that will improve the readability of health-related educational materials for children and their families (Betz et al., 2008).

Background

Health literacy was initially brought to the forefront of the healthcare professional in 1974. Simonds (1974) acknowledged the importance of informing healthcare professionals of the correlation between low health literacy and negative healthcare outcomes consequences. Health literacy is fundamentally new to many members of the healthcare community but has quickly gained the attention of researchers, policy-makers and medical clinicians due to its widespread impact on healthcare outcomes and patient well-being. Within the healthcare arena, low health literacy exists between the clinical and the patient due to gaps in communication. Inadequate health literacy is more prevalent among vulnerable populations and a stronger predictor of health outcomes than social and economic status, education or age. Garmararian et al. (2006) agreed that

deficiencies in one's health literacy skills are responsible for their inability to seek preventive healthcare measures. The ramifications of low health literacy include patient's inability to assume positive self-management, increased cost related to medication and treatment errors, more frequent hospitalizations or longer hospital stays, more visits to their PCP as well as being able to identify preventive healthcare services (Osborne et al. 2011). Unfortunately, to date the cost of treating patients with low health literacy is accelerating constantly and spiraling out of control. Currently it is estimated that the United States spends upwards to \$50-\$70 billion annually in related healthcare cost for these patients. Based on a review of the current literature, clinicians generally do not assess patient's literacy level during office visits (Kripalani & Weiss, 2006). This information is extremely surprising since it determines a patient's level of understanding and definitely influences their self-management and healthcare outcomes. Patients with new healthcare diagnosis need to be taught how to manage their care and the necessary follow-up instructions in such a way that they can adhere to the treatment plan and medication regime. As healthcare providers, it is our due diligence to ensure that patients receive quality care despite their low health literacy status.

Nurses should set the environment for teaching sessions with patients who have low health literacy skills through clear communications. According to Fidyk, Ventura, & Green (2014), having effective teaching methods on how to teach nurses how to teach is to establish focused strategies using evaluative methods to collect feedback and determine the effectiveness of patient education based on the nurses' perception and their self-assessment of their patient teaching methods. The integration of various teaching

strategies and communication methods offer aid in the enhancement of comprehension and understanding of written healthcare information. An effective communication method requires time and the delivery of effective education mandates even more time (Ridge, 2015). There are some specific elements that can assist in improving patient's experience when they are incorporated during teaching sessions with patients with low health literacy skills. As healthcare organizations begin to address the barriers to learning and the inefficiencies which contribute to patient misunderstanding, not only will the patient's health status improve but so will the organization's patient satisfaction scores. According to the Hospital Consumer Assessment of Healthcare Providers and Services (HCAHPS), patient satisfaction scores are largely influenced by their interactions with their healthcare providers, The feedback from the HCAHPS survey is particularly important for patients with low health literacy skills because it gauges the hospital's effectiveness to provide services for this vulnerable population. Depending upon the patient satisfaction scores from the NDNQI report prior to the implementation of the teach-back would indicate that further investigation needs to be done on whether successful implementation of teach-back techniques had any impact on patient satisfaction related to patient education and nurse communication. In order to substantiate and quantify improvement in patient satisfaction scores, all nurses within the Ambulatory Care Network would need to receive training on teach-back and consistently incorporate them into practice.

Implications for Using Teach-Back on Nursing Practice

Utilizing the teach-back method for the enhancement and retention of patient healthcare information is imperative to improve the overall health outcomes especially for patients with low health literacy skills. Various organizations and theoretical models validate the use of the teach-back method for improving communication and ensuring patient understanding but as a safety practice. During the educational in-service nurses will receive a Teach-back session outline which will assist them in the identification of patients with low health literacy which will allow them to adapt their teaching strategies for better patient comprehension. All healthcare providers should incorporate the teach-back methods and encourage their patients to speak up when they have questions regarding their treatment plan. When the nurses use the teach-back method, it reinforces open communication and provides opportunities to discuss patient barriers, identify clues of low health literacy and ultimately bring awareness of this rising epidemic. Some clues and barriers that may indicate low health literacy skills may be incomplete forms, inability to follow discharge instructions, and failure to keep scheduled follow-up appointments. Some of the most common excuses patient have used are “I cannot see to read the information because I forgot my glasses or the print is too small.” Patients with low health literacy skills have been able to mask their disability even from their family members due to their shame and embarrassment. The patient-physician communication role definitely needs an overhaul (Williams et al. 2002) acknowledged that the focus of low health literacy should be on the physician’s ability to better communicate with

patients by determining the most effective technique or method on how they learn best and implement those strategies during patient education.

The concept of health literacy has recently become a popular topic of conversation among many healthcare organizations and society as a whole (Egbert & Nanna, 2009). When nurses reinforce the use of the teach-back method it can help to dispel the scope of low health literacy and explore ways that researchers and clinicians can reduce its negative impact on healthcare outcomes. Teach-back can serve as a platform for healthcare reform and clinicians can advocate for improvement and discuss the challenges and strategies of low health literacy while addressing it on all levels of society. Researchers can identify needed areas which can advance the conceptualization of health literacy.

Impact of Low Health Literacy on Patient Safety

The delivery of effective patient education is an integral component of quality care, patient safety and patient satisfaction (Tamura-Lis, 2013). Patient safety is one of the optimal healthcare goals for organizations. The key objective for patient safety for all healthcare organizations should be to have zero incidents of preventable harm. Teach-back has been highly regarded as one important patient safety initiative as well as a proven method as a universal safety practice within healthcare environments National Quality Forum. (2005). This is a difficult task to accomplish for patients with low health literacy due to their difficulties understanding, recalling and applying written healthcare information into their daily lives. Nurses are at the forefront of patient care and education therefore; it is essential that they use and reinforce a confirmatory method to ensure the

healthcare instructions are understood. Tamura-Lis (2013) agreed that one of the most successful and confirming evidence-based method is the teach-back method. All members of the healthcare team, especially physicians should be taught to adapt their communication teaching strategies to comply with the literacy levels of their patients. When low health literacy skills have been identified, using teach-back enables the healthcare clinician the ability to evaluate whether learning has occurred. More efforts need to be developed to focus on a just culture, aimed at influencing specific techniques to improve patient safety (AHRQ, 2010). The consequences associated with low health literacy which threatens patient's safety may result in patient misunderstanding of self-care instructions, unnecessary and prolonged complications, debilitating healthcare outcomes and increased medication errors (Tamura-Lis, 2013).

Theoretical Framework

Despite various others theories as mentioned previously that are applicable to patients with low health literacy, Orem's theory provides a greater understanding of how positive change can occur when patients become empowered and engaged in their healthcare management. Orem (2001) stated that when patients retain only limited amount of healthcare information and a lack of understanding coupled with limited medical judgement, making appropriate healthcare decisions are difficult and hinder their ability to self-manage their healthcare needs. The consequences of their lack of knowledge can result in disability or severe and devastating life altering conditions. Therefore, communication plays an integral role in ensuring a patient's ability to comprehend and understand written healthcare information. Since nurses are at the

forefront of patient education, it is essential that they ensure patients and families understand all of the healthcare information required to reduce their risk of lifelong complications. Utilizing appropriate communication is imperative in influencing positive healthcare outcomes, especially for patients with low health literacy. Unfortunately, according to the literature more research needs to be conducted to exam how patients are able to translate healthcare information into their daily lives while being affected with low health literacy.

Orem's theory consist of fundamental capabilities of self-care having the principles of reading, writing and reasoning as the requirements for one's ability to perform self-management of care (Orem, 2001). Comparatively, the phenomenon of patient/health literacy mirrors one's ability to read, comprehend and apply both verbal and written healthcare information to achieve positive healthcare outcomes. A study was conducted using teach-back with mothers of children due to receive childhood vaccines to determine their ability to recall pertinent information. Using both Orem's theory and teach-back aligned the focus of pairing the education with the mother's ability to understand and recall the vaccine information. The combination of both allows the mother to re-state the need for the vaccine, the possible side effects and when to call for doctor's office for any vaccine related emergent issues (Wilson et al, 2008).

Orem's Self-Care Deficit Nursing Theory argues that patients experience health related limitations or barriers that may inhibit their ability to perform self-care or dependent care. Orem's theory consists of several propositions, such as:

- self-care is an individual's responsibility;

- individuals who engage in their own self-care already have some knowledge and skills, but need further assistance in their understanding of health information;
- deficits occur from one's lack of knowledge of their condition and limited educational resources for self-care;
- when self-care behaviors are instituted, individuals experience improvement related to their life, health and wellness.

Orem's use of Teach-back enhances and promotes better understanding for patients with low health literacy (Villaire & Mayer, 2007). Although the implications are mixed depending on the researcher, most continue to argue that communication is critical in increasing patient's knowledge and understanding. The majority of articles reviewed, stated that when nurses use and reinforce the teach-back method and effectively use communication skills in conjunction with individualized teaching modalities, patient's not only improve their recall, understanding and applicability to manage their care but it also increases their self-worth and allows them to feel empowered.

Iowa Model of Evidence-Based Practice to Promote Quality Care

The Iowa Model of Evidence-Based Practice is a guide most often used in healthcare to translate research evidence into clinical practice to improve the quality of patient care. Titler et al. (2001) described the seven key components in the process based on evidence findings from observational studies, qualitative research, meta-analyses and RCTs. Each of the seven steps describes how the collection of all the relative data aids in the project imitative to ultimately improve patient care.

The first step identifies your patient care topic which needs to be improved upon. It is clearly documented that health literacy is rapidly becoming an increasing social and economic problem in healthcare. The magnitude of this problem is sky rocking daily and has major impact on patient healthcare outcomes.

Step two of the Iowa Model; it involves the formation of a team who will be responsible for developing the anticipated project outcomes. The team should consist of clinical subject experts, key organizational stakeholders, healthcare providers and nurses as the end-users of the project. Each member of the team will offer unique perspectives in their specific area of expertise based on health literacy (Doody & Doody, 2011).

A thorough literature review occurs in step three. A search to find evidence on health literacy and its impact on healthcare outcomes was conducted through various electronic databases such as CINAHL Plus, Cochrane Library, MEDLINE and MEDLINE with full text, PubMed and EBSCO. Peer reviews on health literacy were also searched for contributing information. In order to retrieve a sufficient amount of information, key terms relative to health literacy were used in the search.

Step four consists of systematically evaluating the evidence on health literacy. This is a vital step in the Iowa Model because the content experts need to appraise critique and determine the strength of the evidence and its relevancy to the project (Joanna Briggs Institute, 2008).

In accordance with step five, the project team synthesis the evidence and make clinical practice recommendations. The recommendations for improving the healthcare status for patients with low health literacy need to be feasible, meaningful and offer

strategic interventions for the translation of effective communication utilizing the teach-back method.

In step six, the project team implements the evidence-based practice upon approval of the organization and ensuring that all policies and procedures are align with the organizations evidence-based practice guidelines. The development of an effective communication plan to disseminate the new practice findings is imperative.

The final step in the Iowa Model involves the evaluation of the implementation of the evidence-based clinical practice. According to Titler (2001) the evaluation phase provides valuable feedback information to the project team to determine if revisions to the project are needed.

Plan-Do-Study-Act Cycle: Evidence-Based Practice Model for Improvement

As the DNP student overseeing the project, the responsibility for examining the results of the pre-implementation survey will be placed upon this student, who will then disseminate the information to the team. The feedback results will serve as the baseline for the formulation of the job aid or job aid. The project team will develop a charter, project timeline and will be given task assignments based on their area of expertise. While the DNP student will continue to ensure collaboration occurs within the multidisciplinary team throughout the course of the project. The basic premise of the Plan-Do-Study-Act (PDSA) cycle is to perform a small test of change to learn, refine and drive continuous improvement efforts for an identified initiative. Using this proven evidence-based practice method, PDSA cycles serve to investigate small tests of change processes while rapidly implementing evidence-based practice or influence common

sense changes for the use of the teach-back method (Sirwardena, 2009). The PDSA cycle guides the direction of the plan, which includes the involvement of the team, the “do” how the plan will be carried out, the “study” measures the initiative and summarizes what has been learned and as the team “acts” on what to keep and what needs to be omitted or revised. During the “act” phrase, the team determines the next steps (Sirwardena, 2009). Using the PDSA cycle supports continuous quality improvement by progressing through multiple phases of a specific process on health literacy until a solution is established. Once a standardized teach-back program has been developed, a mechanism for monitoring the new process will be implemented and evaluated periodically.

Other Confirmatory Teaching Methods

Ask Me 3

Ask Me 3 is a communication that assists in bridging the gap between patients and their healthcare provider to ensure the translation of education is received properly. The program was developed by the Partnership for Clear Health Communication at the National Patient Safety Foundation (NPSF). NPSF is a national coalition of various organizations that work collaboratively to promote awareness and identify solutions to address low health literacy and its impact on the safe delivery of care and patient’s healthcare outcomes (IHI, 2005). It consists of having the patient ask their healthcare provider three simple questions during all healthcare interactions:

- What is my main problem?
- What do I need to do?
- Why it is important for me to do this?

The Ask Me 3 provides various practical strategies that are available for patients to help with their low health literacy issues. This method is quite similar to using the teach-back method because it allows for confirmation of patient understanding. The Ask Me 3 is also used to enhance the nurse-patient communication as it helps nurses gain confidence in their teaching methods to patients with low health literacy. The Ask me 3 plays an essential role in patient education because of the shared responsibility of communication, which bridges the gap between the patient and the nurse. According to studies conducted by National Quality Forum (2005) there was substantial increases in patients understanding, confidence and improvement in their healthcare outcomes, using Ask Me 3.

Pictorial Aids

According to Peregrin (2010) compared to other interventions to improve low health literacy; pictorial aids reinforces the understanding, recall and retention ability by using visual clues to enhance healthcare information during educational sessions. This method is especially helpful with improving medication adherence. Patients can be given medication cards with pictures of their medication and a picture of a clock set to indicate what time they are to take their medicine. Kripalani et al. (2008) conducted a study that used “pill cards” with patients, and the results indicated that of the 209 patients enrolled in the study, 83% acknowledged that the “pill card” was an effective resource as a reminder of when to take their medication. Through several studies and systematic reviews, much emphasis has been placed on the importance of combining pictures with both oral and written information to improve patient understanding and avoid

misinterpretation of information being taught (Peregrin (2010)). Patients with low health literacy often prefer the use of pictorial aids to enhance understanding. An example of using pictures to increase patient's adherence to their medication regime is to have them take pictures of their medications on their cell phones and denote on each one the time that they are due to take it. This method will clarify the medical terminology of b.i.d, t.i.d or hs, which patients with low health literacy have a difficult time understanding. When pictures are included in patient education, especially with medication instructions, patient satisfaction scores improved (Katz, 2006).

Closing the Loop

Although health literacy is a new concept in healthcare, physicians in ambulatory care settings rarely assess their patient's literacy levels. The consequences of overlooking this vital step can lead to negative clinical implications (Schillinger et al. 2003). Studies have been conducted that stated patients recall as little as 50% of the instructions given by the physician prior to leaving the office (Schillinger et al. 2003). Another communication strategy that has been proven to be effective with patients with low health literacy is a method whereby the physician will have the patient restate the information or instructions to ensure comprehension or assess the patient's perception. This is called the interactive communication loop. The principles of "closing the loop" as they relate to the delivery of education using the teach-back method are shown in Figure 1.

Teach-Back: Closing the Loop

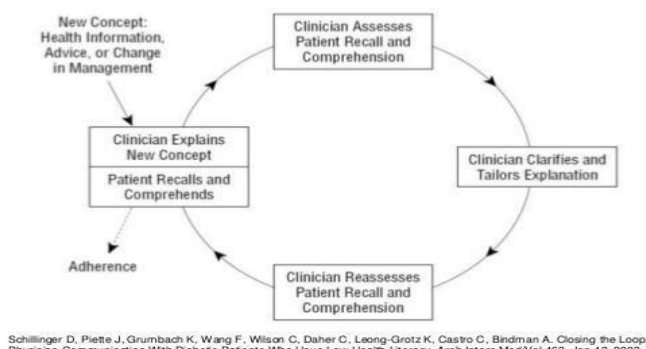


Figure 1. Teach-back: Closing the loop.

Summary

The literature review focused on the use of teach-back to increase the comprehension and recall of patients with low health literacy. The literature clearly described how patients with low health literacy experience poorer healthcare outcomes due to an inability to self-manage their care and to seek preventive measures to ensure positive health and wellness. The healthcare costs of low health literacy are as high as \$75 - \$100 billion annually (Webster, 2011). According to Williams et al. (2002), all healthcare providers should be addressing patients' literacy and communication skills across the continuum of their care. Using proven, evidence-based teaching methods such as using plain language during both verbal and written instructions, focusing on key points, and asking the patient to repeat back the healthcare information can be a strong predictor of a patients' healthcare outcomes. Most importantly, patients should be engaged in their healthcare, and strategies for educating patients should be adjusted according to the individual's learning style. Using teach-back is an evidence-based

method that confirms patient understanding and helps them to manage their healthcare needs.

Section 3: Design and Methodology

The purpose of this evidence-based project is to develop a nursing staff educational program to reinforce the use of the teach-back method. The use of the teach-back method can improve patients' comprehension and recall abilities of written healthcare information for self-care and home management. This section will outline how the project will accomplish the developmental activities using the following steps:

1. Review relevant literature and evidence.
2. Develop educational program curriculum.
3. Develop an implementation plan.
4. Develop an evaluation plan.

Formation of the Project

As the DNP student developing this evidence-based project, it will be instrumental that the development and design of the educational program for the teach-back method be clearly defined and structured to improve the healthcare outcomes of patients with low health literacy. The Children's Hospital of Philadelphia is the nation's first hospital devoted exclusively to care for children. The hospital was established in 1855 with 12 beds; to date the hospital has grown to house 535 beds, multiple specialty departments, and The Richard D. Wood Pediatric Ambulatory Care Centers. Children's Hospital of Philadelphia has over 30 ambulatory sites within its network; however, upon approval, the initial teach-back educational program could be conducted at one of the ambulatory care network sites, the Nicholas and Athena Karabots Pediatric Care Center, which is located in an urban environment. The center has a staff of over 75 nurses

including CRNPs, RNs and LPNs. The demographics consist of patients from all walks of life with varying educational, social, and professional backgrounds. The selection of nurses who would be invited to attend this project would be based on their knowledge of this patient population, their area of expertise, and their commitment to improve patients' healthcare literacy skills. A plethora of peer-reviewed articles were found from the literature search which provided content from subject matter experts, which was influential in the development this evidence-based teach-back project.

According to Hodges & Videto (2011), the literature review would identify which key content experts would play an integral role in planning and developing the educational program as well as those who should support the project goals and be invested in and committed to the project's outcomes. The choice of key stakeholders should include noted scholars in the field of health literacy who understand the impact of health literacy on patients' healthcare outcomes. The collaboration of various peer reviewers offers a multitude of expert perspectives to give an overall assessment of both the patient's needs and the nurse's perspective on teaching strategies. I will serve as the facilitator for the project in the identification of relevant content for the teach-back educational program.

Review of Evidence

When conducting an evidence-based project, it is imperative that the goals and outcomes align with the organization's values and mission. Having access to the latest and most relevant research will assist in quantifying the project's outcomes and validity. The primary purpose of conducting the literature review for this DNP proposal was to

identify and evaluate the current research related to using the teach-back method. Once the articles are critiqued, the I will evaluate the contents to determine the strengths and weaknesses of the articles and how the peer-reviewed literature can assist in the development of the teach-back educational program. The results of the literature review will provide guidance for the project and determine which method or theoretical framework will be the best method for the development of the teach-back program. The teach-back method will be used with patients with low health literacy, and it will confirm that the patient comprehended the education or instructions given. This method will allow patients to ask clarifying questions for increased understanding or for the nurse to repeat the instruction. Due to the multiple complexities involved with low health literacy, it is imperative that patients fully understand and have the ability to incorporate the healthcare information into their daily lives. (Kripalani & Weiss, 2006). When healthcare material is written in short sentences of fewer than 10 words, simple language, include pictures and bullet points, in addition to using the teach-back method, there is less confusion and an opportunity to clarify any questionable concerns (Attwood (2007).

Teach-Back Educational Program

The primary focus of this evidence based project is to develop an educational program to assist registered nurses when delivering discharge instructions to patients with low health literacy increase their comprehension and recall ability. Because patients with low health literacy have difficulties taking the necessary measures to utilize written healthcare information into their daily lives, they may incur prolonged illnesses; have medication errors, repeated hospitalizations and more frequent visits to both their primary

care provider and the emergency department (Mayer & Vallaire, 2004). Utilizing an effective individualized teaching plan, using the teach-back method, it will enhance the patient's ability to recall and apply healthcare information into their homecare management plan. The feasibility of this proposed will provide clear and concise communication techniques and strategies to increase patient's comprehension and understanding, which will allow them to comply with their healthcare regime. The education will include the following primary purposes:

- enhance and ensure nurses use effective communication,
- promote improved patient safety, and
- increase patient satisfaction and compliance.

The developed educational program will be used for patients with low health literacy during educational teaching, sessions if the nurse identifies a patient with low health literacy skills. The educational curriculum will offer education on defining teach-back, its benefits and concepts as well as utilizing it as an educational cornerstone for this vulnerable population of patients. The nurse will then tailor the teaching plan according to patient's individual needs. Regardless of whether a patient demonstrates low health literacy skills, healthcare providers should take the necessary steps to ensure they are using clear and simple communication. As noted by Hocevar (2015) even the best healthcare advice doesn't get used, if it's not clearly understood.

Development of the Implementation Plan

Although this evidence based project will not be implemented as a requirement for DNP graduation, the educational program will be established for future consideration.

If the program's proposal were to be approved by the hospital's key stakeholders all of its essential components from the Health Literacy Universal Precaution Toolkit would be endorsed by AHRQ (2010). The program will focus on specific modalities of the teach-back method to ensure that all nurses learn how to utilize the interventions to help patients with low health literacy recall, retain and apply healthcare information into their daily lives. The primary objectives of the program will include the definition of teach-back, the benefits of using this evidence-based practice method in clinical practice and the significance of incorporating Orem's Theory of Self-Care to demonstrate the value of assessing patient's literacy levels. There would be several resources available to assist nurses in the use and reinforcement of the teach-back method. The hypothesis of this project is that not only would it improve patient's literacy skills and improve their healthcare outcomes but reduce the associated healthcare cost and improve societal economics (Webster, 2011).

Development of the Evaluation Plan

According to Berwick (2009) when instituting a new innovative evidence-based project there may be many challenges, especially if the project proposal has not been designed from a well-developed and structured plan. Therefore, when disseminating the evaluation plan, the key project components should be developed during the initial planning phase of the program's design. This DNP student will rely on the literature from the peer reviewed content experts to develop and validate the evaluation plan for the program. There may be revisions to the program, if warranted. The success of the

program should include both short and long term goals when assessing the incorporation of the teach-back method into clinical practices.

Summary

Utilizing a new practice job aid for patients with low health literacy will consist of incorporating various communication skills and teaching strategies to improve their comprehension and recall abilities of written healthcare information. This DNP student will also embrace the use of the various strategies and interventions to further promote, enhance and clarify better healthcare outcomes (Wood & Bolyard, 2011). The project will integrate the nurses' understanding of how they can impact patients with low health literacy outcomes. Nurses are at the forefront to be able to identify and understand the structure, processes, outcomes, cultures and vulnerabilities of this patient population. To date, low health literacy is a rising epidemic and it definitely needs to be addressed immediately within the entire healthcare system and on local, national and global levels of government.

Section 4: Discussion and Implications

The healthcare system is a complex, confusing, and a daunting institution to navigate, particularly for patients with low health literacy. A quality improvement project to educate staff nurses to use the teach-back method encompasses an evidence-based best-practice methodology. According to Mayer & Vallaire (2004), several research studies have been conducted that identified a direct correlation between patients with low health literacy and poorer healthcare outcomes, especially those with chronic health conditions. Consequently, the teach-back educational program was developed solely from the content of peer-reviewed literature. I critically appraised the peer-reviewed literature using the Johns Hopkins Nursing Evidence-Based Practice tool. The educational training program was developed to assist the nurses in their ability to discern patients with low health literacy or limited literacy skills and tailor their discharge teaching instructions to the patient's individual learning style, thus empowering patients with low health literacy to retain the written healthcare information and apply it in their homecare management. The intended outcome is to confirm and enrich the comprehension and recall ability of patients with low health literacy. The educational initiative was designed to substantiate the value of nurses using the teach-back method during discharge instructions. Social and economic implications of treating patients with low health literacy were taken into consideration in the development of the project. It was imperative that the integral focus of the program was on increasing the patient's comprehension of their written healthcare information in order to improve their healthcare outcomes.

Project Implications

This project will serve as a catalyst for staff nurses to use the teach-back method to validate patient understanding. The teach-back method is an excellent strategy in the delivery of patient education (Fidyk et al., 2014). Health literacy impacts all aspects of healthcare and nursing education. Therefore, barriers to learning need to be addressed, and effective individualized discharge teaching plans should be developed. The teach-back plan should consist of various modalities that will provide enrichment of the patient's ability to recall and apply their homecare management instructions. The use of a variety of different teaching modalities improve the nurse-patient relationship through increased patient engagement. According to Kornburger et al. (2013, there was no standardize method for nurses to educate patients with low health literacy, which resulted in inconsistencies in discharge education. When verbal and written information are taught together, it is imperative that nurses assess whether learning occurred. There should be confirmation that the patient or caregiver understands what they need to do in order to follow their discharge instructions (Burkhart, 2008). Research clearly indicates there is a direct correlation between misunderstood or not adequately understood discharge instructions and noncompliance with required healthcare regimes (Lerret, 2009). Several national organizations are recommending the use of teach-back to ensure improved patient understanding: the National Quality Forum (2009), The Joint Commission (2007), and Healthy People 2020 (2010) have stated that when patients repeat their discharge instructions in their own words, both learning and retention are increased (Schillinger et al, 2003).

Primary Product

Health literacy is defined as the ability to obtain, process, and understand basic health information and the services required to make appropriate healthcare decisions (IOM, 2004). Health literacy is a significant public health problem that is reaching epidemic proportions (Healthy People 2020 (2010)). Low health literacy is associated with poorer healthcare outcomes and prolonged complications, and can negatively affect patient safety or even lead to death. Currently, there are an estimated 90 million Americans who have difficulty understanding healthcare information given to them by healthcare providers (Weiss, 2007). One essential component of teach-back is that it is an “interactive communication loop” whereby the responsibility of ensuring the information that has been explained and correctly understood lies with the healthcare provider. This communication loop allows patients to ask clarifying questions and explain the information back in their own words. Teach-back allows nurses to reassess any misunderstood information while promoting patient safety.

Teach-Back Program

The primary product developed for the teach-back program will explain the best practice techniques for communicating with patients with low health literacy. The program interventions will be used to educate staff nurses working in an ambulatory care environment on the specific content and delivery structure for using the teach-back method (Appendix A). The educational intervention will describe the contents and the various blended learning methods for the program’s deliverables. The incorporation of blended learning methods will assist in the engagement of the attendees in the program.

The structure of the program will direct the nurses on when and how to use the teach-back method during discharge education. The use of a well-developed standardized teaching method will enable the nurses to increase their discernment for patients with low health literacy. This will allow the nurses to develop individualized teaching plans to enhance their patient's recall ability. Through patient engagement, the use of open ended questions, and clarifying any misunderstood information, patients should have a better opportunity to improve their overall healthcare outcomes. Nurses will begin to see the value of using the teach-back method when patients become more actively involved in their healthcare decisions and can comply with their healthcare. No patients will be involved in the educational sessions. The program agenda will be developed based on peer-reviewed literature to outline how the course will be delivered to the attendees. The contents will include essential components of the teach-back method and available resources. The education intervention will focus on providing patients with low health literacy clear and concise instructions in a mode of communication they understand, thus allowing them to comply with their healthcare regime. Healthcare organizations need to address this daunting and specialized healthcare problem on a global level. Doing so may help decrease the spiraling cost of healthcare and patient health outcomes may start to improve (Webster, 2011).

Secondary Products

The secondary products developed for the project were the implementation and evaluation plans, which served as a guideline for the transition of the teach-back into clinical practice. The goal of the implementation and evaluation plans are to promote

increased awareness of educating patients with low health literacy by incorporating the use of the teach-back method to increase the understanding and recall of written healthcare information for this particular population of patients. In addition to the implementation and evaluation plans, the program will provide the nurses with a teach-back resource job aid to assist them in identifying patients with low health literacy (Appendix D).

Implementation Plan

Prior to the implementation phase, a program timeline was developed that delineated the required steps needed for the implementation of the teach-back education. The population sample consisting of 58 ambulatory nurses in an urban environment was chosen. A pre survey was sent to the nurses to gain their baseline knowledge of the teach-back method and health literacy. The nurses' responses were kept anonymous. The implementation of the educational training program was developed to assist the nurses in their ability to discern patients with low health literacy or limited literacy skills and tailor their discharge teaching instructions to the patient's individual learning style. The selected group of nurses will attend one session comprising of 2.5 hours of didactic education within a 6-week period (Appendix A). The initial pilot program will be conducted at one of the ambulatory care network sites within the organization that is located in an urban environment. The proposed practice change will use concepts from the PDSA cycle. The development of the plan for this evidence-based practice project was based on current literature using the PDSA cycle. The implementation of the teach-back educational program (Appendix B) was developed incorporating best practices

while defining the key components of health literacy, societal implications, the value of using the teach-back method, and an evaluation of its sustainability to improve patient healthcare outcomes.

The content for the teach-back educational program will consist of a PowerPoint developed by clinicians at the Iowa Health System entitled “Teach-Back: A Health Literacy Tool to Ensure Patient Understanding.” The PowerPoint has been endorsed by AHRQ as part of the Health Literacy Universal Precautions Toolkit, which can be found online and includes a section entitled “The Teach-Back Method” (AHRQ, 2010). To help foster the education, three short videos on teach-back method will be used, allowing nurses the opportunity to role-play using actual patient scenarios and the teach-back resources to be given to all of the attendees. The objectives include defining health literacy and its key components, defining the essential components of the teach-back method, and how to incorporate the teach-back method into the nurse’s discharge education for patients with low health literacy (Appendix A). The PowerPoint presentation provides evidence-based information on various teaching modalities from when the teach-back method should be used to clear examples of how the teach-back method should be delivered, and it offers a multitude of internet resources citing research that supports the use of teach-back to improve patient comprehension. The short videos used during the teaching session will augment learning. Because nurses may use various educational concepts and techniques during teaching sessions, a review of the current literature suggests the use of Orem’s theory of self-care (2001), which emphasizes the importance of assessing patients’ literacy levels prior to conducting any educational

teaching in order to promote learning and enrich the patient's ability to retain the information. During the educational program, the participants will be provided with a review of resources comprising of effective components they may find helpful when teaching patients with low health literacy (Appendix D). The available resources will include various communication strategies and skills nurses may use during teaching sessions, clues that may indicate low literacy skills, and examples of what some patients may feel as a result of having low literacy skills. As healthcare professionals begin to use and reinforce the teach-back method consistently for patients with low health literacy during discharge instructions, a multitude of opportunities may be identified that will assist in further research and discovery of other approaches to address this daunting public health problem. Following the 4-week post implementation phase, nurses will be asked to complete a post survey, which will assess their ability to use the components they learned during the educational program and to evaluate the effectiveness of the teach-back program.

Teach-back Project Timeline and Outcomes							
Project Outcome	Timeline						Comments
	1 week	2 weeks	3 weeks	4 weeks	5 weeks	6 weeks	
Literature review	Yellow						Peer-review scholarly journals and articles
Teach-back background	Orange						Formulate background information for using teach-back to confirm patient understanding
Development of Implementation plan		Green					Development of pre and post surveys. Determine participant sampling
Primary products		Blue					Program design and determination of educational resources
Secondary products		Yellow					Implementation plan and evaluation plan
Educational resources		Grey					Development of teach-back forms: program agenda, implementation plan, evaluation plan, job aid, teach-back ID badge, and course evaluation
Conduct teach-back course						Red	Collect completed course evaluations

Figure 2. Teach-back project timeline and outcomes.

Evaluation Plan

According to Berwick (2003) the implementation and evaluation of a new innovative program can be very difficult and not without its challenges. Therefore, when disseminating an evaluation plan it is essential to include key stakeholders in order for the program to be successful and more importantly sustainable. It is imperative to have developed a well-designed and structured plan to help simplify the discovery of its success. Since the delivery of the initial program will be evaluated against the development and contents from peer-reviewed literature, the primary evaluation will be

conducted at the conclusion of the educational sessions by “closing the loop” and assessing the attendees’ knowledge of the presented topic (Appendix C). This quality improvement project will provide an educational training program for staff nurses who work within an Ambulatory Care environment. The program was designed to use and reinforce the teach-back method when teaching discharge instructions to patients with low health literacy. The efficacy of whether using the teach-back method for patients with low health literacy improves their ability to recall, retain and restate their written healthcare information in their own words once it was taught by the nurse using the teach-back method, remains to be determined. The program’s intention was to be able to show an improvement in patient’s comprehension of written healthcare information and improvement in their overall healthcare outcomes. The nurses in the educational program were asked to discuss their perception of the course objectives and if the program would add value to their discharge educational sessions. The feedback is intended to identify the quality of the speaker’s knowledge, and whether the program captured the intention of the objectives and if the practice change will have a successful transition into clinical practice. Lastly, would the nurses state that the best indicator of whether the program would be successful after implementation and sustainable within the organization to try something new to improve patient’s healthcare outcomes? All healthcare professionals should provide patients with the necessary tools to become empowered to actively and more effectively participant in their healthcare. The translation of the discharge instructions for a patient to successfully understand and manage their healthcare is a patient’s right.

Data Collection

A pre survey was sent to the participating nurses to assess their knowledge of the teach back method and to share their experiences using this methodology. A post educational course evaluation form will be sent as a survey monkey and a 4 weeks post education survey will be sent to determine if they deemed the evidence based project was beneficial in improving patient comprehension, recall and application of healthcare information. The 4-week post survey will also collect information on whether they are have translated the information into their clinical practice when educating patients with low health literacy.

Results

A total of 58 nurses responded to the pre-survey (78%) and 53 completed the course evaluation form (72%). The surveys will be used to identify if there was an increase in their knowledge post education. The two primary questions were “Do you know what the term teach-back means? In addition “Are you familiar with the term “health literacy?”” The pre-test results indicated that nurses had some knowledge of teach-back and health literacy prior to attending the program. The post course evaluations indicated a strong increase in the transfer of knowledge acquisition for using the teach-back method for patients with low health literacy. The response to the meaning of teach-back 63% of the 58 nurses stated they were familiar with the term, while 31% commented that they were not sure if what they did during patient teaching was considered teach-back and 8.6% indicated they could not define the term. On the post course evaluation, 100% of all the nurses reported that they better understood the term teach-back. Regarding the results the “health literacy” prior to the course 39 of the nurses (67%) reported they had knowledge of the term “health literacy” in addition 31% reported they were not sure of the term, while 3.4% were unfamiliar with the term. On the post course survey of the 53 nurses who completed the survey 92.5% were able to confirm that they knew the term health literacy” while 7.5% answered they were unsure of the term. There were no reported responses from the nurses that stated “no” they were unfamiliar with the term.

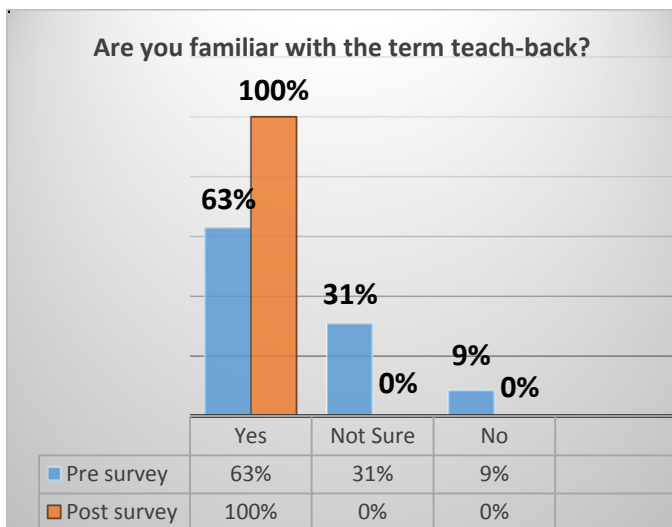


Figure 3. Are you familiar with the term “teach-back?”

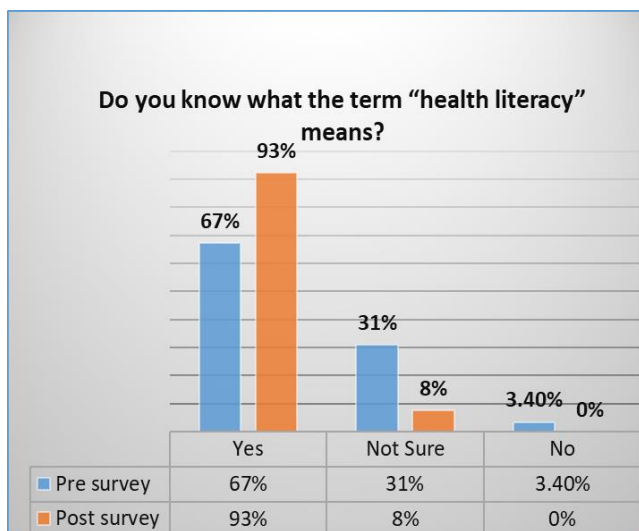


Figure 4. Do you know what the term “health literacy” means?

Teach-Back Job Aid

There were other supplemental projects developed for the nurses to use when working with the patients with low health literacy which provides a reference containing the definition of what health literacy entails. The teach-back job aid (Appendix D) will

assist the nurses in identifying various clues, red flags or coping strategies that the patients have used to mask the literacy skills for years. Having the ability to identify these clues will indicate to the nurses that future assessments may be needed. The job aid will remind nurses to use clear communication, to keep the education on focused required teaching by using 2-3 short statements. In addition to the job aid, nurses will receive a laminated reference card (Appendix E) which can be attached to their ID badge as an easy reference during teaching sessions.

Analysis of Self

The formulation for the development of a teach-back program was a result of prior research during this DNP student's undergraduate work and the statistics that indicated that patients with low health literacy have a higher rate of negative healthcare outcomes and complications. The World Health Organization (WHO, 2020) identified low health literacy as one of its top ten public health problems. Walden's DNP has provided an opportunity for me to address this public health concern and act to engage in educational initiatives to bring this social, medical and public health problem to the forefront of our society and develop specific evidence based s to change the delivery of patient and family written healthcare information. Healthcare organizations should be mandated to provide clear and concise healthcare materials for patients to improve their education and understanding of the required written information in order for patients to be able to comply with their healthcare regime.

Summary

The implementation of the teach-back product used during the educational program for patients with low health literacy will serve to improve their ability to recall, retain and apply their healthcare information into their daily lives. An evaluation assessment will determine the effectiveness, perception and sustainability of organizational culture changes to accept new intervention into clinical practice. Nurses have an obligation to provide patients with low health literacy their “right” to clear and concise education, taught so they can recall, retain and apply their healthcare information into their daily lives. By using the teach-back method and tailoring the education to patient’s individual learning needs, it allows for confirmation of their understanding and provides an opportunity to clarify any misunderstanding.

Section 5: Dissemination Plan

The development and evaluation of this teach-back project was for nurses to use in order to reinforce the teaching of discharge instructions to patients with low health literacy. Once the project was implemented, an evaluation of the project's success was determined by the number of nurses who stated they incorporated the teach-back method into their discharge education sessions and found it to be beneficial in increasing and enhancing the patient's understanding of their written healthcare information. Depending on how the patients and families perceived the teach-back education determined whether they continued to use the skills given to them by the nurse at each of their future discharge educational sessions to increase their knowledge of their medical condition and accomplish their home care management.

Summary

Walden's DNP program has given me the educational tools, concepts and resources to become an advanced practitioner, which allowed me to assemble an interdisciplinary project team with key organizational stakeholders to develop a quality improvement project for the benefit of patients with low health literacy to improve their overall healthcare outcomes. The project will not only decrease the rising cost of healthcare for treating this vulnerable population, but it will also address the social problem through a comprehensive and innovative program of nursing education to effect a system-wide healthcare organizational change.

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Appendix A: Teach-Back Educational Program

Objective Statement

The presentation that will attend today will focus on delivering education that will convince you of the benefits of using the teach-back method with all patients but particularly for patients with low health literacy – so that they will be able to recall, retain and apply their written healthcare information into their daily lives.

Description of Teach-Back

Nurses play an integral role in patient education, there it is imperative that nurses ensure patients and their families understand their written healthcare information. Teach-back enhances communication and confirms understanding of the healthcare information.

Teach-back allows patients to restate or explain written health information in their own words. The program will include various strategies, key concepts for using teach-back, communication skills and resources to assist them when teaching patients with low health literacy.

Participants

All nurses within the Ambulatory Care Network will be invited to attend any one (1) of the educational sessions.

Schedule

Welcome and registration

Introductions of Instructor and attendees

Name, role, site, and one quirky thing about them

Icebreaker

Play get to know me bingo. Using a bingo format go around the room and speak with your fellow co-workers and ask them the questions on the bingo game board, mark off as many things as you can to make bingo.

Review agenda

What is Teach-back? Give definition.

- Ask Me 3
- How many people have heard of teach-back?
- How many of you know how to use the teach-back method?
- Who can define health literacy?

Teach-back video Presentation: Iowa Healthcare Collaborative PowerPoint (2013)

Group discussion: Correlation between low health literacy and the teach-back method.

What is health literacy? Definition: Institute of Medicine (2004).

Advocacy agencies working to improve literacy:

- Agency for Healthcare Research and Quality
- Joint Commission
- National Quality Forum
- Healthy People 2020

Statistics on Low Health Literacy

Prevalence of patients affected with low health literacy

Economic burden of treating patients with low health literacy

Consequences patients with low health literacy experience

How to use teach-back

Teach-back video demonstrating teach-back during role playing

Identifying low literacy clues

Key concepts of using teach-back

Communication strategies

Teach-back strategies

Closing the Loop

Wrap - up

Questions

Appendix B: Implementation Plan

Estimated implementation time: 6 weeks

Resources needed for implementation

Access to computers with AV equipment, paper supplies for documents

Meeting space for class

The goal of the implementation plan is to develop education to assist Ambulatory nurses on their ability to tailor patient education to meet the individual learning needs of patients with low health literacy. The teach-back course will incorporate best practices while defining the key components of health literacy. The program will include various strategies using the teach-back method that will assist patients with low health literacy to recall, retain and apply their healthcare information into their daily lives.

Task	Timeframe	Responsible Person	Project Outcomes
Review peer-reviewed literature	Weeks - 1 – 2	Project Developer	Research articles on both health literacy and teach-back. Begin to develop background information on using teach-back method
Develop implementation timeline and secondary products	Weeks - 2 – 4		Implementation Timeline Primary products <ul style="list-style-type: none"> • Teach-back Guidelines Secondary products <ul style="list-style-type: none"> • Implementation plan • Evaluation plan
Teach-back Education	Weeks - 4 – 5	Project Developer	Educational design <ul style="list-style-type: none"> • Syllabus • agenda • Presentation materials

Conduct Educational	Week - 6	Project Developer	2 hour Evaluation of education delivery
Development of resources	Week - 6	Project Developer	Teach-back Job Aid Links to videos: www.youtube.com/watch?v=dMAS2S51bM8 www.youtube.com/watch?v=N0gCzdVFmM .
Evaluation Plan	Week – 6	Project Developer	Transition plan

Appendix C: Evaluation Plan

A well-established implementation and evaluation plan are the essence of the sustainable of a new innovative. The teach-back program was designed for the utilization of nurses to improve the understanding of their written healthcare information for patients with low health literacy. The evaluation of the program will seek to determine the efficacy of whether using the teach-back method can help patients improve their ability to recall, restate and apply their written healthcare information into their daily lives. A course evaluation will be used to determine the nurses' perception of the course objective statement and to see if it added value to increase their knowledge acquisition related to teach-back. Another indicator of the program's success will be that after its implementation and it is translated into clinical practice, will it be sustainable within the organization. The overall goal of the evaluation plan is to determine the effectiveness, perception and sustainability of an organizational culture change to accept a new intervention into clinical practice.

Course Evaluation

Engagement	Yes	No
The teach-back educational was relevant and well presented		
I have a better understanding of the teach-back method and its components		
The teach-back method will add value to my daily clinical practice during patient teaching		
I have been informed about how low health literacy skills are directed interrelated with poorer healthcare outcomes		
Watching the video, performing role-play and using pictures, reinforced my understanding of this EBP method		
Knowledge "Closing the Loop" on teach-back		
The 3 concepts that I learned during the teach-back are:		
1.		

2.			
3.			
Confidence			
I feel confident that by using the teach-back method, I will be able to assist patients with low health literacy improve their overall healthcare status			

Comments:

Appendix D: Teach-Back: Job Aid

Health literacy is associated with the ability to read, comprehend and make appropriate healthcare decisions. The job aid will describe various skills and strategies that nurses can use during teaching sessions.

Effective components of teach-back include:

Communication: Explain the process and purpose of using the teach-back method.

- Use plain language – avoid medical jargon
- Ask patients to re-state the healthcare information in their own words
- Do not ask yes/no questions
- Speak at a slow pace and even tone
- Offer positive and encouraging feedback

Teach-back Strategies: Discuss how to use teach-back with patient education

- Break the information down into 2-3 short statements
- Include drawings and pictures
- Clinician clarifies or corrects patient misunderstood information (teach-back)
- Continue process until new concept is understood
- Encourage patient to ask questions


Development of Coping Techniques often used by patients with low literacy skills:

- I forgot my glasses
- The print is too small; can you read it for me?
- I'll read it when I get home
- My children will want to read this information, I'll show it to them

Patients with Low Health Literacy Skills feel:

- Ashamed
- Embarrassed
- Guilty
- Confused
- Alone

Appendix E: Teach-Back Badge Card

Teach-Back	Teach-back Questions to ask your patient
 <p>Teach-back is an evidence-based method used to confirm or validate that the patient can understand the instructions given and have the ability to recall or re-state the information in <i>their own words</i>.</p> <ul style="list-style-type: none"> • Assess your patient's understanding, clarify any misunderstood information • Chuck and Check – offer 2-3 key points in short sentences • Include various teaching modalities • Encourage patients to ask questions • Offer positive and encouraging feedback 	<p>I want to make sure that I explained the information clearly, can you tell me</p> <ul style="list-style-type: none"> • What will you explain to your family about your visit today? • How will you take your medication at home? • What you will do if you have any side effects from your medication? • Who will you call to schedule your follow-up appointment? <p>What questions do you have for me?</p> <p style="text-align: center;"><u>Teach-back Tips:</u></p> <ul style="list-style-type: none"> • Ask patient to repeat information in their own words • Do not ask yes/no questions • Use plain simple language • Speak in an even and non-threatening tone
<u>NOT</u> a test of the patient but how well <u>you</u> explained the information	

Iowa Healthcare Collaborative: Teach Back Basics Toolkit (2012). Teach-Back Pocket Card. Retrieved from http://www.ihconline.org/asp/general/page.aspx?pid=107#Implementation_Tools_

Appendix F. Institutional Review Board Approval Number

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