WALDEN UNIVERSITY
A higher degree. A higher purpose.

Walden University
ScholarWorks

Walden Dissertations and Doctoral Studies

Walden Dissertations and Doctoral Studies Collection

2022

Teach-Back Program to Improve the Quality of Patient Medication Education

Dawn Africa
Walden University

Follow this and additional works at: https://scholarworks.waldenu.edu/dissertations

Part of the Nursing Commons

This Dissertation is brought to you for free and open access by the Walden Dissertations and Doctoral Studies Collection at ScholarWorks. It has been accepted for inclusion in Walden Dissertations and Doctoral Studies by an authorized administrator of ScholarWorks. For more information, please contact ScholarWorks@waldenu.edu.

Walden University

College of Nursing

This is to certify that the doctoral study by

Dawn A. Africa

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

Review Committee
Dr. Tanya Cohn, Committee Chairperson, Nursing Faculty
Dr. Cassandra Taylor, Committee Member, Nursing Faculty
Dr. Barbara Gross, University Reviewer, Nursing Faculty

Chief Academic Officer and Provost
Sue Subocz, Ph.D.

Walden University
2022

Abstract

Teach-Back Program to Improve the Quality of Patient Medication Education

by

Dawn Africa

MS, Herbert Lehman College, 2005

BS, Herbert Lehman College, 2000

Project Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Nursing Practice

Walden University

August 2022

Abstract

Institutions are invested in improving healthcare providers' ability to enhance the quality of patient teaching. The teach-back method provides tools and strategies for promoting patient-focused learning and has the potential to increase nurses' conviction and confidence in teaching patients about their medications. Nurses are not routinely taught how to teach patients, and they usually lack confidence in teaching about medications. This project was developed using the Donabedian model of structure, process, and outcomes. Studies and journal articles were searched through a variety of libraries and online sources, including the internet, using various teach-back and patient literacy combinations of search terms, and a literature review matrix was created for ease of use and to determine relevance. Other sources of evidence came from the project team's assessment of the educational offering and from the project participants. Six identical sessions that included an educational offering and participant teach-back simulation were conducted. Participants evaluated the program, completed a pre and post conviction and confidence survey, and responded to a conviction to use teach-back question. The results showed no significant change in their pre and post conviction to use teach-back (M = 9.86, SD = .478; p = 0.056); however, there was a significant change in post teach-back education confidence to use teach-back (M = 8.71, SD = 1.007, $p < 0.001$). Nurse participants also committed to use teach-back for future patient education. The results indicated that even a short teach-back education session for nurses can improve nurses' confidence in using teach-back when teaching their patients. This method could lead to positive social change if implemented and monitored throughout nursing units.

Teach-Back Program to Improve the Quality of Patient Medication Education

by

Dawn Africa

MS, Herbert Lehman College, 2005

BS, Herbert Lehman College, 2000

Project Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Nursing Practice

Walden University

August 2022

Dedication

To the ancestors, who will always be the wind beneath my wings, encouraging me to play my part in opening the path for others like me by flying higher. Daddy, I always hear your voice through my struggle, asking me if I am doing my doctorate; the answer is yes.

Acknowledgments

To my wonderful family, who helped me to see the light at the end of the tunnel, giving me the will to continue despite the many hurdles encountered. To my husband, who knows the value of education and always helped me to reach higher, and my children, who never pressured me but always believed in me and gave me hope. To my dear friends and the Walden faculty and staff who traveled this journey with me, reaching out to encourage me when I faltered. To an omnipresent and gracious God, who helps me to remain joyful in hope, patient in trouble, and faithful in prayer.

Table of Contents

List of Tables iv

List of Figures v

Section 1: Nature of the Project 1

Introduction 1

Problem Statement 5

Purpose Statement 7

Nature of the Doctoral Project 9

Significance 11

Summary 15

Section 2: Background and Context 17

Introduction 17

Concepts, Models, and Theories 18

Definition of Terms 21

Relevance to Nursing Practice 21

Local Background and Context 24

Role of the DNP Student 26

Role of the Project Team 27

Summary 28

Section 3: Collection and Analysis of Evidence 30

Introduction 30

Practice-Focused Question 31

Sources of Evidence 32
Participants 33
Procedures 34
Protections 36
Analysis and Synthesis 37
Summary 39
Section 4: Findings and Recommendations 40
Introduction 40
Findings and Implications 41
Recommendations 46
Contribution of the Doctoral Project Team 47
Project Team Comments and Recommendations 49
Strengths and Limitations of the Project 49
Section 5: Dissemination Plan 52
Analysis of Self 52
Summary 53
References 54
Appendix A: Biomedical Research Alliance of New York Institutional Review Board Approval 65
Appendix B: Walden University Institutional Review Board Approval 67
Appendix C: Agency for Healthcare Research and Quality Permission to Use Teach-Back 69

Appendix D: Permission to Use Always Use Teach-Back! Toolkit....................................71

Appendix E: Biomedical Research Alliance of New York Verbal Consent Script 72

Appendix F: Always Use Teach-Back! Conviction and Confidence Scale.......................74

Appendix G: 10 Elements of Competence for Using Teach-Back Effectively 76

List of Tables

Table 1. Analysis of Pre and Post Education Conviction and Confidence Surveys 45

List of Figures

Figure 1. Pre-Education—Nurses Asking Patients to Explain in Their Own Words 43

Figure 2. Participants' Reports of Number of Teach-Back Elements Used in the Past Week 44

Figure 3. Posteducation Commitment to Use Teach-Back Responses 46

Figure 4. Project Team Evaluation of Educational Offering 48

Section 1: Nature of the Project

Introduction

Nurses are not routinely taught how to deliver medication education to their patients, so there are many variations in their teaching styles and practices. This inconsistency creates a gap between the dissemination of information by the nurse and the patient's understanding and use of that information. As healthcare evolves and patients are discharged from acute care settings more quickly to continue their care in the community, nurses are tasked with ensuring that patients are well equipped with the knowledge needed to maintain wellness. The issues faced by discharged patients are largely centered around medication management, highlighted by the fact that about 50% of patients do not adhere to medication regimens (Brown et al., 2016; Miller, 2016). One Cochrane review presented evidence that most patients generally take only half of the prescribed dose and others never take their medications (Nieuwlaat et al., 2014).

Patient education is a vital function of nursing and essential for patient safety. A meta-analysis on health literacy and adherence found a positive correlation between the two (Miller, 2016). Health literacy is complex and does not only affect patients with low socioeconomic status (SES), older patients, and patients from minority groups; LHL can be found in all age groups and in patients of varying literacy skills within the health care setting (Barton et al., 2018). Failure to accomplish effective patient education may have profound effects on the health and well-being of the patient. It is important to prepare nurses to address patients' educational needs by using strategies that work. When patient education is individualized and targeted to cater to patients' literacy levels and specific

needs, patients are more satisfied, and that satisfaction increases their medication adherence (Bakar et al., 2016). Teach-back (Abrams et al., 2012a) is one such strategy known for its ability to improve nurses' confidence and conviction in delivering quality education to patients. Inadequate or suboptimal patient education puts patients at risk for medication mismanagement errors that may result in nonadherence, unplanned emergency room visits, or hospital readmissions (Kripalani et al., 2015). The American Heart Association (AHA) recognized in its policy paper that patients with chronic diseases cost the United States an avoidable $300 billion annually (Piña et al., 2021). A study on the relationship between patient health literacy status and medication adherence showed that increasing health literacy in a group of hypertensive patients led to an increase in medication adherence (Firat Kilic & Dag, 2020).

Patient education is fundamental to the patient safety role of nursing. The teach-back method offers a helpful solution for standardizing patient education as well as making nurses more confident that they are getting the message across to the patient. A precursor to nurses addressing low health literacy (LHL) patient issues is to ensure that they are knowledgeable of the existence of such issues among their patients. The Agency for Healthcare Research and Quality (AHRQ) and Institute for Healthcare Improvement (IHI) suggest using the teach-back method as a universal precaution for teaching patients to eliminate health literacy issues (Yen & Leasure, 2019). Therefore, it is a priority to create health literacy awareness among nurses and train them to teach patients at all health literacy levels with whom they interact. Educating nurses to deliver quality patient education will close the patient–provider communication gap, empower patients, improve

their ability to manage their care, and increase nurses' conviction and confidence in patient teaching. Many organizations, including the American Academy of Family Physicians, the American College of Surgeons, the American Hospital Association, the American Nurses Association, the Federation of American Hospitals, and The Joint Commission (TJC), have seen value in the teach-back method and have endorsed its use (Bodenheimer, 2018; TJC, 2007).

The purpose of the project was to introduce teach-back concepts to nurses through a focused educational program that addressed medication teaching. The aim of the education program for nursing staff was to enhance their ability to teach and improve the quality of education. This project was prompted by the belief that education will increase nurses' conviction concerning the value of the teach-back method and their confidence in using the method (Holman et al., 2019). Previous research showed that nurses lacked confidence when teaching patients about medications and anticipated side effects (Bowen et al., 2017), and that lack of confidence in medication teaching was noted at the project institution. When nurses feel more confident with teach-back, the quality of patient medication education will improve. To ensure that patients receive information that they can understand and use, nurses must be cognizant of patient's health literacy needs and make adjustments to individualize patient teaching. The teach-back method has been recognized as a cost-effective strategy that has the ability to encourage patients' involvement and engagement in their care (Caplin & Saunders, 2015). The teach-back educational program introduced for this project aimed to improve nurses' conviction and confidence, as measured by nurses' self-assessment using the Always Use Teach-Back!

Conviction and Confidence Scale (Abrams et al., 2012b) pre and post education (see Appendix A).

This project provided education on how to use teach-back for purposeful interaction between nurses and patients. It highlighted the importance of verifying patients' understanding about their medication regardless of literacy level, through closed-loop communication, which adds to the quality of patient teaching.

I used information obtained through interactions with the stakeholders and project team and from the literature review to determine which aspects of the teach-back education program would best meet the needs and bridge the identified gaps. The results obtained from pre and post education surveys and from assessment of the educational program by the project team were analyzed and used to assess the impact of the program. The proposed benefit to local nursing practice was a self-reported increase in nurses' conviction about the value of teach-back, and in their confidence when using the method to educate patients about their medication, and the expectation that the institution's stakeholders would value the educational program as appropriate for closing the medication education gap. Preparing nurses to deliver effective patient education as required by their job roles is important (Jack et al., 2019). Although the intended outcome was the benefit to nurses, the importance of this program to enhancing patients' understanding of their medications through improved, quality teaching cannot be understated. Better understanding by patients with low medication literacy will likely lead to better medication compliance, which will ultimately decrease unplanned

emergency visits and the cost of care; these other measures were not assessed for this project but may be reviewed later by the institution.

Problem Statement

The defined practice problem for this doctoral project was that nurses at the local hospital did not have a standardized process for teaching patients about their medications, and each nurse did their best to teach on the important aspects of medications, thereby affecting the quality of the education. Nurses were not taught how to deliver medication education to their patients, so there were many variations in their teaching styles and practices. This observation was confirmed in discussions with the nurse leaders and educators at the institution, and in discussions with unit staff. It was acceptable for a nurse orientee to be deemed competent to administer medication safely once they used the technology safely and demonstrated the five rights of medication administration as outlined by the Institute for Safe Medication Practices (1999).

Nurses charged with keeping patients informed and educated about their medications have no standard format for teaching their patients. It has been shown that some of the discomfort with medication teaching is related to deficiencies in nurses' pharmacological knowledge (Crowe et al., 2018; King, 2004). Fortunately, this hospital provides tools for increasing pharmacological knowledge through use of readily available technology (Micromedex) that provides information and clinical teaching about the medications. However, more is needed to standardize and improve their teaching techniques.

Rapid patient turnover and low health literacy are real challenges for nurses. Once patients get through the acute phase of illness, they are discharged back into the community to continue their care. Despite shorter hospital stays, patients receive numerous instructions about their medications and care in preparation for discharge (Kornburger et al., 2013). LHL contributes to nonadherence, unplanned emergency room visits, hospital readmissions, and even death from diseases such as heart failure (Kripalani et al., 2015; McNaughton et al., 2015). LHL is prevalent in this community, putting it at increased risk for related issues. It is well known that patients with LHL are at increased risk for problems from nonadherence to medications (Koster et al., 2018), whereas patients who are health literate demonstrate better ability for self-care (McDonald & Shenkman, 2018). Patients tend to nod and give other affirmative cues to hide lack of understanding, to hide their shame and embarrassment when their low literacy status is discovered by healthcare personnel (Rajah et al., 2018; TJC, 2007). Discharge education that is tailored to the patient's needs can mitigate this problem, as was shown in a study on discharge education with teach-back that resulted in a 45% reduction in 30-day readmissions (Oh et al., 2019).

To prepare for discharge, nurses are disseminating large volumes of information about medication, and the patients' comprehension is seldom verified (Vashi & Rhodes, 2011); this makes discharge a high-risk time for patients. Knowledge of patients' health literacy status will help to ensure that patient education is individualized to meet their needs. Using a standard format such as teach-back ensures consistency in the use of elements necessary to deliver quality education and to ensure that patients understand

what is taught. Hospitals are conducting ongoing evaluations of communication about medications, appropriateness of discharge, and inadequate transitions of care through review of 30-day readmissions as well as through patient experience surveys. This project is significant for nursing practice because nurses trained in patient-centered approaches to medication education have the potential to prevent patient suffering and to decrease the massive healthcare costs associated with suboptimal or unexpected outcomes.

Purpose Statement

Nurses are among the most important interdisciplinary team members who focus on educating patients on proper self-care, use of medications, and equitable use of services when they transition back into the community. However, lack of proper preparation for delivering that education has created the patient–provider communication gap that was addressed by this doctoral project. Medication illiteracy is a huge problem in the United States and is a large contributor to the billions of dollars spent in unplanned healthcare costs annually (Rajah et al., 2018). Reliable solutions to mitigate or eliminate the issue would mean significant reductions in healthcare costs at the individual, community, and national level.

It is incumbent on healthcare institutions to prepare nursing staff to be competent to provide quality patient teaching. The Institute of Medicine (IOM) supports the role of nurses to improve the health of families and communities and reduce the impact of determinants of health such as LHL (Bleich, 2011). The IOM has recommended that healthcare agencies train staff and supply tools to meet the educational needs of LHL patients (Bleich, 2011). The problems of poor provider communication and failure to

address the learning needs of the LHL patient are not new to healthcare. The practice-focused question of whether nurses who receive instruction on using the teach-back method will self-report increased ratings in their conviction and confidence to use the method needs to be further explored. TJC charged healthcare institutions to close the patient–provider communication gap by using specific measures, including staff training, to improve provider–patient communication and patient-friendly education to address the patient's needs (Murphy-Knoll, 2007). TJC also advocated for assessment of patients' understanding through teach-back (Goeman et al., 2016). The Centers for Medicare and Medicaid Services (CMS) emphasized the importance of patients receiving proper health education that they can understand and use, and the 2010 National Action Plan strategic goals centered on the development and dissemination of health and safety information and interventions to improve health literacy (U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion, 2010).

Nurses are well prepared to meet patients' physical needs; however, many are ill prepared to deliver effective medication teaching to low literacy patients. The primary purpose of this Doctor of Nursing Practice (DNP) project was to introduce teach-back concepts to nurses in a one-time session that focused on medication teaching. The repeated use of the teach-back method is expected to help improve nurses' conviction and confidence as they adopt it in their daily practice. This project used tools to provide nurses with a consistent method for teaching patients and using check back with patients to verify their understanding. There is agreement in the literature that training staff to use

teach-back helps them focus and adapt their teaching to meet patients' individual needs, because of the increased awareness of their patients' literacy level (Goeman et al., 2016).

The guided practice-focused question explored whether nurses provided with the tools and skills of the teach-back method will have the conviction and confidence to offer better quality medication education to their patients. This DNP educational program was designed to prepare nurses to use the teach-back method to deliver consistent, purposeful, effective patient medication education and close the patient–provider communication gap. By teaching nurses to use the teach-back method, this project addressed elements that contribute to nurses becoming more convicted and confident in providing quality patient education, which will be evident as they teach patients about their medication using the teach-back method. Better patient understanding will hopefully be demonstrated by patients' safe use of medications; however, this is beyond the scope of this project.

Nature of the Doctoral Project

The evidence for this project was derived from three sources: the literature review, the project teams' evaluation of the educational offering, and the project participants' pre and post education self-surveys. The literature review addressed the evidence related to the subject of health literacy, nurse conviction and confidence, medication adherence, medication literacy, teach-back, and other topics relevant to the identified problem. The articles relevant to this project were organized into a literature review matrix for ease of use.

Evidence was collected from the project team. The members of the team were asked to evaluate the initial educational offering before the final product was taken to the frontline staff. The evaluation data were collected using a 4-point Likert scale and open-ended questionnaire to gain feedback on whether the educational activity satisfied the identified practice problem. The information contributed by the project team served as a source of evidence used to develop and determine the format of the educational project. After the 45-minute educational offering was presented to the project team, each project team member was asked to complete an evaluation using an evaluation survey with ratings using a Likert scale and a place to obtain suggestions and/or comments. The evaluations were reviewed to determine whether changes were needed before the program was offered to the staff nurses. The Likert scale completed by the project team was analyzed using SPSS.

Lastly, the frontline nursing staff volunteers who consented to participating in the educational activity contributed additional evidence through their completion of pre and post education conviction and confidence surveys. This third source of evidence was obtained from deidentified data from the project participants after they took part in an educational offering. These data were taken from the pre and post surveys used to evaluate the effectiveness of the education as perceived by the nurses, who recorded their pre and post conviction and confidence with using the teach-back method for patient teaching. Because of its face validity, the use of teach-back is encouraged in health care to improve provider–patient communication (Griffey et al., 2015). The pre and post

education conviction and confidence surveys completed by staff were collected anonymously and analyzed using *t* tests.

The project participants' post education surveys were compared with the pre education surveys to evaluate the impact of the educational offering and to see whether participants would consider using teach-back in the post education period. Increased use of the teach-back method is anticipated to improve nurses' conviction and confidence, close the nurse–patient medication education gap, and improve the quality of patient medication education, lending to a significant change in practice.

Significance

The stakeholders for this project included the chief nursing officer (CNO) of the institution, the director of nursing (DON) for the medical units, and the care experience officer. Representatives from the nursing administration, nursing education, and the patient experience team, including two doctorally prepared nurses, comprised the project team for this DNP project. Other stakeholders were frontline nurses who participated in the educational activity, and ultimately the patients and families who were not part of this DNP project but will benefit from more patient-focused medication education. The members of the healthcare team understand that nurses are changemakers who are in constant contact with patients, performing holistic care, teaching, and preparing them for transitions out of the acute care setting. Medication education is extremely important for patients returning to the community. However, it is challenging for nurses to teach effectively without adequate preparation, and some LHL patients will succeed in hiding their low medication literacy, unless measures are employed to verify their understanding

(E. Marcus, 2006). Being able to individualize patient teaching for all health literacy levels is important to patient safety. This project provided nurses with the tools to provide quality patient teaching regardless of patients' health literacy status. To offer quality education, it is important to understand the patient's background, literacy level, and learning style (Marcus, 2014). This project focused on introducing teach-back tools that will help increase nurses' conviction and confidence and prepare them to offer improved medication teaching to their patients.

The U.S. economy is burdened with $100-$300 billion in annual costs related to unplanned medical care, emergency room visits and hospitalizations resulting from nonadherence (Rajah et al., 2018). In 2019, the estimated cost of waste in healthcare exceeded $2.5 billion attributed to failure of care delivery and failure to coordinate care (Shrank et al., 2019). A 2017 systematic review on 30-day readmission for heart failure patients highlighted the fact that these patients accounted for 25% of all readmissions, at a cost of about $30 billion (Almkuist, 2017). The study concluded that if nurses provided discharge education using the teach-back method, the number of 30-day readmissions would decrease (Almkuist, 2017). Support for using teach-back for discharge education was resounding in a systematic review that pointed to a 45% reduction of 30-day readmissions when using this method to teach patients (Oh et al., 2019).

Medication nonadherence remains a problem for healthcare workers, patients, families, and communities. In a study involving chronically ill patients, it was clear that 50% did not take medications as directed, 60% could not identify their medications, 30%–50% ignored the instructions, 12%–14% did not adhere to the advice, and 12%–

20% took medications prescribed to others (Viswanathan et al., 2012). For patients with LHL, even simple instructions can be misunderstood or just not followed, and it is common for these patients to misinterpret medication labels (Jones et al., 2014). All these health literacy issues, which contribute to poor individual and community health and result in exorbitant individual and community costs, must be addressed by healthcare workers with innovative approaches that have a positive impact.

The LHL issues evident in the borough served by this institution highlight the immense opportunity for nurses to effect change by learning proven techniques for disseminating medication information. Contributing to nurses' knowledge by teaching them techniques such as teach-back for improving medication education will have the impact of ensuring safe, quality medication teaching to patients. In one study looking at the impact of teach-back, the findings were that it not only improved the patients' understanding and ability to recall pertinent information about medications, but also had the added benefit of enhancing the knowledge and expertise of healthcare personnel (Klingbeil & Gibson, 2018).

The teach-back method can be used by any discipline to improve patient–provider communication because of its potential to ensure clarity for both the patient and the provider (Ryan-Madonna et al., 2019). Nurses should be taught how to use the proven teach-back method to educate patients about their medications, because patient education is one of their most important functions and impacts patients' ability to care for themselves when they no longer are in the controlled hospital environment. The teach-back method encourages nurses to ask open-ended questions to verify provider–patient

understanding and to "close the loop" when educating and empowering patients to participate in their care and improve their recall of health information. Open-ended questions encourage dialogue and clear errors and misconceptions for both parties, which makes the teach-back method transferable to a variety of patient teaching situations.

Various studies have highlighted the positive impact of teach-back on patients and providers and the social impact of clarifying and verifying patient understanding. McDonald and Shenkman (2018) opined that the teach-back method should be used by all healthcare providers. They felt that when health literacy issues are addressed by providers and the community working together, the providers will be more apt to impact the health literacy epidemic by ensuring that patients have a better understanding of their health (McDonald & Shenkman, 2018). In a study of 150 nurses, Rajah et al. (2018) reported on using teach-back education to address providers' deficiencies in defining and understanding the concept of health literacy. They acknowledged that after nurses received teach-back education, including return demonstrations and reinforcement of the education in some cases, 93% of them reported that they were able to use teach-back with confidence (Rajah et al., 2018). Even in cases where nurses were not confident that patients would be able to manage their medications after receiving medication education or felt that medication education should not be their sole responsibility, teach-back was the preferred method for patient education (Bowen et al., 2017). Nurses' conviction and confidence in adopting and using teach-back is important, and this project introduced them to some tools and strategies to make positive social change by providing quality

medication education to patients. As was seen in the study by Bowen et al. (2017), nurses' attitudes can also affect their behavior and present a barrier to patient education.

Nurses equipped with the skill and having the confidence to use teach-back effectively will be able to partner with their patients to use medications safely. Once nurses master teach-back for medication education, the technique will be transferable to other aspects of their teaching, and they will be able to customize it to improve other areas of care. Patients who are informed and empowered should be better able to manage medications, resulting in better health outcomes and reduced healthcare costs (Bowen et al., 2017; Neiman et al., 2017). As the number of nurses trained to use teach-back in nurse–patient interactions increases, the social impact to the nursing community of this institution will be evident by their ease of offering standardized, meaningful, improved medication education to patients of varying literacy levels.

Summary

The nurse's role in assisting patients to maintain wellness cannot be understated. Medication management is one of the key components of nursing care for patients in the acute care setting and as they transition back into the community. Patients are leaving acute care settings before recovery is complete, and they are expected to continue their recovery or maintain wellness after discharge. Despite the duty to provide effective patient teaching, nurses are not taught a proven, consistent method for delivering patient education. Working with nursing staff to introduce teach-back concepts and giving them opportunities to practice using the tools and techniques provides a framework for improving patient medication education.

Teach-back is a tested, interactive, iterative, low-cost, AHRQ-endorsed method that supports the patients' needs to be involved in their education while increasing nurses' conviction and confidence in educating their patients (Cifuentes et al., 2015). Its adaptability to patient and situation makes it a good method for reinforcing behaviors, knowledge, and skill (Porter et al., 2016). By using teach-back, nurses will routinely individualize patient education to meet their needs and verify their understanding. It is important to note that patients at all literacy levels could benefit from teach-back, as there is evidence to show that medical terminology is challenging to patients of all ages, ethnicities, and literacy levels (Barton et al., 2018). Teach-back provides structure and standardization that will help increase nurses' conviction and confidence, and the overall quality of patient education and other interactions. The program is further developed in Section 2, in which I discuss the background and context of this project.

Section 2: Background and Context

Introduction

Nursing staff must be prepared to meet the needs of their patients, which encompass more than just the physical and the emotional domains. Learning how to teach patients at all levels of the health literacy continuum is important. When there is effective nurse–patient communication, patients will not be confused about their care, medications, and other instructions to maintain well-being (Ryan-Madonna et al., 2019). The identified practice problem is that nurses are not trained to educate their patients about their medications, leading to inconsistencies in teaching and in the quality of patient education. There is concern that current nursing curricula do not emphasize health literacy knowledge or prepare nurses to address health literacy issues (Barton et al., 2018). Barton et al. (2018) contended that the complex issue of LHL in the United States creates urgency for nurses to be prepared to address the issue in every patient encounter. LHL has been referred to as a silent epidemic because of its effect on the nation's health (E. Marcus, 2006), and the associated costs to patients and communities. Some of the damaging effects can be lessened if staff are properly trained to address the learning needs of the affected population and give them the tools to manage their care. Frontline staff nurses have most of the responsibility for patient medication teaching, but many are still finding it a task that they are often ill equipped to handle.

The purpose of this DNP educational program was to introduce concepts of teach-back to unit nurses who routinely educate patients about their medications. The educational program was structured using the Donabedian framework, as outlined in this

chapter. This chapter also provides greater insight into the background and context of the problem, my role and that of the project team, as well as constraints that I encountered as a DNP student. Some of the terms used in this project are also defined.

Concepts, Models, and Theories

The teach-back method has been noted to influence behavioral change in nurses through their self-report of improvement in conviction and confidence. I used the Donabedian model (Donabedian, 1966a) as the framework for this educational project to improve nurses' knowledge of teach-back and increase their conviction and confidence to use the method effectively when teaching patients about their medication. The Donabedian model was proposed by Adevis Donabedian, a professor at the University of Michigan School of Public Health in 1965, to address issues in the quality of healthcare (Ayanian & Markel, 2016). The Donabedian model is relevant for use in preparing, presenting, and evaluating a teach-back education program for nurses because it has been noted to provide an unambiguous framework for addressing and evaluating issues related to healthcare quality (Ayanian & Markel, 2016).

The preparation, dissemination, and assessment of this project followed the three components—structure, process, and outcome—of the Donabedian model (Donabedian, 1966a). The project focused on teaching nurses how to teach patients at any level of the health literacy continuum, and to verify their understanding about their medication in real time. The goal was to help nurses increase their confidence in using teach-back through repetition and standardization, as well as to increase their conviction that teach-back is an effective method for nurse–patient interaction. Benner's (1982) novice-to-expert theory

indicates that knowledge and skill development are important components needed by nurses to move successfully through the novice-to-expert continuum, and there is proof that this works in nursing. An increase in conviction and confidence should result in improved patient teaching.

The simplicity of the Donabedian quality assurance framework makes it flexible and adaptable to the development of an educational project (Botma & Labuschagne, 2019), as well as the implementation and assessment of that project. The structure component of the framework refers to the organization and resources that were used for designing and directing this program, including planning the mode for delivering the education and integrating it into the current educational plan at this institution. Donabedian included the setting and administrative processes that direct care as essential to the structure component of his model (Donabedian, 1966a). Collaboration with the project team was essential to this phase of the project to lend support and direction to the project. The design of this program included didactic education as well as simulated experiences to afford learners the opportunity to perform return demonstrations. Every effort was made to ensure that this program remained cost neutral or low cost to the institution, which allowed for it to be easily incorporated as an adjunct to current educational programs.

The second element of Donabedian's framework is process, which he applied to the effective delivery of information and care. For this project, the process outlined the actual quality and implementation of the program. Donabedian's model addresses the process component through the quality of physician–patient interaction and application of

knowledge (Donabedian, 1966b). Donabedian assessed healthcare and healthcare information for appropriateness, completeness, and the technical competence of the provider making decisions and judgements and managing health, illness, and continuity of care (Donabedian, 1966b). The process of this program included collaborating with the project team to better develop and deliver the educational program. The educational component of didactic and simulation experiences was developed with the assistance of the project team, as well as some aspects of the AHRQ-approved teach-back education program (Abrams et al., 2012a) relevant to the identified issue. This project promoted the use of teach-back essential elements such as “chunk and check” and “closing the loop” to verify patient understanding. The program also emphasized the need for nurses to be aware of patient health literacy status, a critical factor that is sometimes neglected by healthcare workers. LHL is usually ignored by providers who are not cognizant of the prevalence of this barrier to patient education (Rajah et al., 2018).

Donabedian described outcome as valid, complete, and a measure of the quality of care (Ayanian & Markel, 2016). According to Donabedian (1966), outcome is a concrete measure of quality. The outcome measure for this program was assessed through partnering with a project team for their assessment and recommendations concerning the educational offering and surveying the frontline nursing staff pre and post education for a formative evaluation. Following the dictates of ethics, consent, and voluntariness as outlined by Walden University and the practicum institution’s Institutional Review Board (IRB), I delivered the educational session after review and recommendations by the DNP project team.

Definition of Terms

Chunk and check: Breaking down information into small, manageable chunks and checking for patients' understanding after giving each key point (Hersh et al., 2015).

Closing the loop: Checking patients' understanding by asking them to repeat the key points in their own words (Schillinger et al., 2003).

Health literacy: The degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions (U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion, 2010).

Medication adherence: The degree to which the person's behavior corresponds with the agreed-upon recommendations from the health care provider (Brown et al., 2016; Dobbels et al., 2005).

Medication literacy: The degree to which individuals can obtain, comprehend, communicate, and process patient-specific information about their medications to make informed medication and health decisions in order to safely and effectively use their medications (Pouliot et al., 2018).

Teach-back method: A way of checking understanding by asking patients to state in their own words what they need to know about their health (Abrams et al., 2012a).

Relevance to Nursing Practice

Medication adherence describes the degree to which patients are compliant with their medication regimens (Brown et al., 2016). The causes of nonadherence may be multifactorial, but some of the effects can be mitigated with proper patient education.

Patients have shorter hospital stays and have more chronic illnesses and comorbidities, and many rely on complex medication regimens of an average 5.7 prescription drugs that would prove challenging even for literate patients to manage (Bazargan et al., 2017). The problem is compounded when nurses lack knowledge about medications and have low confidence in their ability to teach, resulting in ineffective patient medication education (Crowe et al., 2018).

Health care providers must understand that medication adherence is closely related to the patient's level of health literacy (Miller, 2016). Some providers are not aware of the level of health literacy of their patients, or the real impact of LHL on communities. Providers' awareness of the crucial role of health literacy in chronic disease management is important, as this helps them to focus on proper patient assessment and to customize education to meet patients' needs (van der Heide et al., 2018). Once nurses are taught to use the teach-back method to routinely validate patient comprehension, the quality of patient education should improve. Pharmacists comparing two groups of patients found higher medication adherence rates in patients/families who received counseling catered to their health literacy status than in those who received standard medication counseling (Hackerson et al., 2018). In another study, pharmacists found that awareness of LHL helped them to do more patient-focused medication education to decrease the impact of LHL (Griffey et al., 2015). This supports the belief that educating nurses to use teach-back will ultimately prepare them to meet the learning needs of patients. The effect of teach-back has been studied in many patient populations, and although it does not necessarily increase patient satisfaction, it has been shown to

improve patient understanding of diagnoses and care and their ability to manage medications (Bodenheimer, 2018),

In studies looking at medication and self -management in cardiac patients, it was found that when teach-back was used to deliver medication education, patients demonstrated better knowledge, self-management and medication adherence (Dinh et al., 2016). Another study looking at the impact of teach-back on patients with chronic disease reported a notable increase in medication adherence and self-efficacy and a decrease in readmission rates (Porter et al., 2016). An Iranian study compared teach-back versus routine education for postpartum patients and concluded that those who received the teach-back education showed better overall physical and psychosocial outcomes (Ghiasvand et al., 2017).

This project is relevant to nurses at this institution, where the current state is that there are no consistent, approved guidelines for teaching patients about their medications and verifying their understanding. The project offered teach-back education and approved techniques and tools for effective medication teaching for nurses while increasing their conviction and confidence in using teach-back. While there is emphasis on medication teaching for patients, especially in preparation for discharge and upon administration of the first dose of medication, the nurses have no guidelines on how to educate, and there is wide variation in their practices. Researchers have contended that using teach-back early and often in patients with LHL improves patients' understanding and increases patients' self-monitoring ability (Porter et al., 2016). This skill is important for nurses who are on the frontline, as they care for and educate patients for successful transition back into the

community. A pilot study showed that those nurses who received teach-back training used the technique more frequently by re-explaining to patients who were unable to explain in their own words (Holman et al., 2019). Teach-back gives nurses the opportunity to make an impact on the patients and community served by this institution, by addressing the nurse–patient communication gap and helping patients to participate in their care and use information that they understand to maintain wellness. After providers received training in the use of teach-back for communicating with their patients, there was a notable self-reported improvement in their communication skills (Kapadia et al., 2020). This doctoral project was developed to build nurses' conviction and confidence in using the teach-back method to address patients' medication education needs.

Local Background and Context

TJC recommends that the demographic data of the population served must be considered when planning for a community's needs. The NYC Community Health Profiles for 2016 reported that the population served by this institution was 34% Black non-Hispanic, 41% Hispanic, 9% White, 7% multirace/other, 6% Asian, and 2% other Pacific Islander (Dragan et al., 2015). The five major diseases plaguing this community are diabetes, hypertension, mental illness, obesity, and heart disease (Dragan et al., 2015). This hospital is part of a larger academic healthcare system comprised of hospitals, ambulatory centers, and clinics that offer a range of emergency, acute, subacute, express, and outpatient care. The health system provides services to over 2 million patients in the Bronx and has a strong community focus.

The Bronx community is plagued by numerous chronic illnesses and drug epidemics and has been found to have high death rates from heart disease, stroke, and diabetes (NYC Health + Hospitals & OneCity Health, 2019). A community assessment also revealed that it was the first NYC borough with a majority of color, most of whom were Latino; that the median age was 33.6 years, that 25.3% of the population were under 18 years of age, that 19.2% of households had single parents, that the shortage of health professionals had reached 45%, and that despite 46 years of efforts to improve lives, LHL, limited English proficiency, limited income, and lack of insurance had remained a problem (NYC Health + Hospitals & OneCity Health, 2019). More recently, it was reported that 9% of the people served do not speak English at home and that a large number of Caribbean and West Africa natives have moved into the area served by this institution (Philippou et al., 2019). A study by Kripalani et al. (2015) showed that some of the demographics represented here are at risk of nonadherence due to LHL; this strengthens the need for nurses to have the conviction and confidence to teach these patients about medication using the teach-back method to ensure that they understand.

The setting identified for this practicum experience was the adult inpatient medical unit, where the demographics and issues stated above are true for most inpatients. These medical units have a 1–5 to 1–6 nurse–patient ratio. Despite ongoing efforts to educate patients about their medications, the publicly reported patient experience scores for nurse communication about medicines were frequently below the benchmark. The Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) scores showed that only half of the patients surveyed reported that nurses

gave them information about their medications before administering them. The disorganization and lack of standardization around medication education have prompted the need to find other effective strategies to help nursing staff deliver consistent, effective medication education to their patients. In addition, accreditation agencies such as TJC, concerned about LHL, require healthcare institutions to train staff to deliver effective patient education as a criterion for accreditation (Bleich, 2011). Teach-back use by nursing staff will also lend to the person-centered expectations of regulatory and accrediting agencies to which this institution is accountable.

Role of the DNP Student

Obstetric nursing has been the focus of most of my nursing career. As a DNP student, I decided to move out of my usual comfort zone and explore practices on the medical units, having done medical nursing years before. In so doing, I tried to decrease bias because I felt that it was easier to be objective in a non obstetric unit. I was tasked with looking at issues and processes to identify gaps in care. The priority issue identified was a deficiency in the quality of nurse communication about medications, as it was not standardized or routinely verified, and nurses are generally uncomfortable in instructing patients about medications. The stakeholders acknowledged that this affected the quality of care and increased the potential for patient injury, suboptimal outcomes, and unmanageable unanticipated costs. An extensive review of the literature showed that this problem is not uncommon and needs to be addressed to improve the quality of medication teaching for patients. The literature pointed to the success of the teach-back

method for addressing issues of patient health literacy as well as improving nurses' nursing conviction and confidence in patient medication teaching (Bowen et al., 2017).

I sought and obtained permission from individuals and institutions with rights to the Always Use Teach-Back! Tool Kit (Abrams et al., 2012a) and the Conviction and Confidence Scale (Abrams et al., 2012b) for use in my project (Appendix C & F). Throughout my nursing career I have encountered patients with LHL, and I have seen some of its effects firsthand when patients did not understand key information about their medications. I was motivated to execute this project to effect a much needed change in the quality of medication education. Based on the units' problem of ineffective education, I believed that the teach-back method would benefit both the nurses and the patients.

Role of the Project Team

The project team contributed to the review and assessment of the educational program offered to the frontline staff. The project team consist of a total of six people who had an interest in addressing the identified problem and included nurse administrators supervising the medical units, the care experience officer for the institution, and two doctorally-prepared nurses. I worked closely with the project team to plan the educational offering, to ensure that this project would meet the institution's needs and align with the goals and plans for enhancing patient education.

The project team's input reported in Section 4 was based on their evaluation after they sat through the educational offering Their input was obtained through ratings on a 4-point Likert scale which they completed, along with narrative comments submitted after the educational program is presented to them.

Summary

Nurses must fulfill their role to provide quality medication teaching to their patients. Proper patient medication education has the potential to decrease their risk of injury from non-adherence, and to help them maintain wellness when they return to the community. Accrediting agencies like TJC expect healthcare agencies to mitigate the effects of LHL by having a process that demonstrates effective patient education (Murphy-Knoll, 2007). In an article on the effects of LHL on patient safety the JCT recognized that LHL patients are at increased risk from lack of understanding of healthcare requirements (2007).

Since lack of Conviction and Confidence as well as deficiencies in educational preparation have contributed to ineffective patient education, the teach-back method was used to provide nurses with tools to teach their patients and to verify their understanding. Increasing nurses' ability to offer effective patient education will add value to their role as patient advocates. Teach-back education will ensure that nurses honor the patients' rights to receive and understand information about their care and medications, which they are able to explain in their own words.

The teach-back project used structure, process, and outcome of the Donabedian framework (1966), to plan for teaching nurses and to evaluate the impact of the education. I observed all ethical requirements of Walden University and of the practicum institution. The educational offering was assessed through comparison of nurses conviction and confidence before and after the education, as well as through the

assessment and critique of the teach-back education program by the project team as outlined in Section 3.

Section 3: Collection and Analysis of Evidence

Introduction

A review of publicly posted patient experience data and conversations with the project team stakeholders pointed to a disconnect between nurses educating patients about medications and patients' understanding of that education. This is of concern in the community served by this institution, with many limited-English-proficiency, ethnically diverse LHL patients who are expected to adhere to their medication regimens to maintain wellness. The purpose of this project was to introduce teach-back concepts to nurses in a focused educational offering, and to evaluate the impact of the education on nurses' conviction and confidence in teaching patients about their medications. In this section, I review the practice-focused question and sources of evidence used to develop this project.

The teach-back project was centered around using approved material to educate nurses on ways to deliver medication education to the multilingual, multiethnic, multiracial, largely immigrant, Black and Hispanic, Caribbean and West African population served by this institution. Current medication teaching practices bring into question the quality of education being provided to patients. Nurses' lack of conviction and confidence and inconsistencies in delivering information to patients indicated the need for effective patient teaching. Griffey et al. (2015) conducted a systematic review on the impact of teach-back on discharge instructions and found that it had face validity for enhancing provider–patient communication in health care settings.

Leaders at this institution are dedicated to improving nursing staff's ability to deliver effective, quality patient education. They welcomed the idea of using a standardized, low-cost, quality program with materials from approved and researched teach-back sources to improve the nurses' ability to teach their patients about medications. The teach-back education program aligned with the institution's mission to serve the community by providing high-quality healthcare and to address patients' health literacy issues. It also aligned with TJC's requirement that healthcare institutions commit to ensuring patient safety by training their staff to communicate clearly with patients (Murphy-Knoll, 2007), as well as with Walden University's goals for bettering the lives of the communities that Walden students serve (Walden University, 2019), and with the American Association of Colleges of Nursing (AACN) Essential VII, which addresses strategies for improving population health (AACN, 2006).

Practice-Focused Question

The practice-focused question for this project was the following: Will nurses self-report increased ratings of conviction and confidence in medication teaching after receiving instruction on the teach-back method?

This question was chosen because the institution serves a community where LHL is prevalent, and the nursing staff do not use a consistent, reliable method for teaching patients about their medications and verifying their understanding. The practice-focused question was designed to explore the impact of teach-back education on nurses' conviction and confidence, with the understanding that this will directly impact the quality of patient education. The practice of using a variety of methods when teaching

patients about their medication and not consistently verifying what was taught indicated a need for a standardized, reliable means of disseminating patient teaching and "closing the loop."

For this project, I utilized aspects of the AHRQ teach-back education program relevant to medication teaching to supply nurses with simple, reliable, approved tools for patient teaching. I used the preapproved material, for which I obtained permission (see Appendices C &D) and tailored the educational program to address the gap identified through discussions and the assistance of the institution's stakeholders and project team. I presented the educational program to the CNO, care experience director, and DON for the targeted units and gained their verbal approval before starting the recruitment and offering the education. I also convened a Zoom session to present to a project team for their critique, assessment, and input. They evaluated the educational offering using a 4-point Likert scale, and the evaluations serve as a source of evidence, reported in Section 4. They were analyzed to see whether changes were needed in the educational offering. The educational offering was presented to the volunteer nurse participants to fulfill the educational component of this project, and the impact was assessed through the pre and post conviction and confidence surveys, and their responses to a commitment to use teach-back question. These served as additional sources of evidence for formative program evaluation.

Sources of Evidence

Between July 2019 to February 2022, I searched several journals, documents, and publications through CINHAL, Clinical Key, Medscape, Medline, ProQuest, PubMed,

JBI, the World Wide Web, and other Walden University sources, augmented by chain searches. I used several key words in various AND/OR combinations to search the literature. These included *teach-back*, *education*, *health literacy*, *healthcare costs*, *HCAHPS*, *medication literacy*, *medication adherence*, *nonadherence*, *medication safety*, *patient teaching*, *nurse confidence*, *competency*, *teaching*, *communication*, and *nurse education*. Most of the literature reviewed was published within 5 years of my anticipated graduation date, but where indicated, I also used string searches and seminal literature beyond that time frame. This literature review served as a source of evidence and provided information for this project.

Participants

A second source of evidence came from the project team, whose members assisted with the development and evaluation of the educational offering. After receiving IRB approval, I continued to collaborate with the project team to further plan the educational project and to evaluate the educational offering for its potential to close the identified practice gap. I also updated team members on the progress and outcome of the educational intervention. Their input and project evaluation validated that the proposed project was adequate to address the needs identified in the practice-focused question.

The third source of evidence came from the pre and post education teach-back conviction and confidence surveys (Abrams et al., 2012b) that were completed by the project participants. This outcome measure was important to the program evaluation and showed the immediate impact of the teach-back education on the project participants. The

evidence obtained from the literature review, project team, and project participants provided the three sources of evidence for this project.

To recruit a convenience sample of participants for this project, I attended unit staff huddles on both day and night tours for 2 weeks to inform staff about the project and to seek volunteers. I ensured that all participants giving consent had a thorough understanding of the informed consent process, including the voluntary nature of their participation and their right to decline participation or to withdraw at any time, risks and benefits, rights to privacy, and plans for maintaining anonymity. I also provided participants with the contact information for the Biomedical Research Alliance of New York (BRANY; the IRB approver) and for Walden University's advocate before they consented to the Walden consent for anonymous questionnaires (Walden University, 2019) and BRANY verbal consent (Appendix E).

Procedures

The literature for this project was collected from various sources, searched through CINHAL, Clinical Key, Medscape, Medline, ProQuest, PubMed, JBI, the World Wide Web, and other Walden University sources, augmented by chain searches. All literature was chosen for its relevance to the identified practice problem and the combination of search terms all related to teach-back, LHL, healthcare cost, and nonadherence. The journals used were organized into a literature review matrix to better understand how they informed the project.

The project team's evaluation was done using an evaluation tool with a 4-point Likert scale and an area for short narrative comments and recommendations. The Likert-

scale responses reflected the project team members' perception of the educational offering. Those responses and project team comments are reported in Section 4. Other stakeholders including the CNO, DON for the project units, and care experience officer also reviewed the project and offered suggestions, which were considered before the project was offered to project participants. The project team's evaluation of the educational offering confirmed that the objectives addressed the practice-focused question, thereby helping to establish content validity.

The Always Use Teach-Back! Conviction and Confidence Scale (Abrams et al., 2012b) constituted an approved self-survey tool for use with the teach-back method. The tool was created by the Iowa health system, The Picker Institute, Des Moines University, and Health Literacy Iowa, and it is endorsed by the AHRQ and IHI, among other reputable institutions. It allows participants to self-assess their conviction and confidence in the teach-back method prior to education and at intervals thereafter. For this project, I asked participants to respond to the questions on conviction and confidence and use of teach-back. These responses provided answers to the practice-focused question. Both the conviction and confidence scales (Abrams et al., 2012b) ranged from 1 (*not at all important* or *not at all confident*) to 10 (*very important* or *very confident*). Participants also responded to the question of how often they asked patients to explain the content of education in their own words, as well as their plan for using teach-back in future patient education. An analysis of the responses was done using descriptive statistics, which are reported in the next chapter.

Protections

In observance of the ethics related to conducting this project, I obtained IRB approval from Walden University (Appendix B) and BRANY (Appendix A), which represented the practicum institution, before approaching staff to participate in this project. I was familiar with the project institution because I also worked there; however, I elected to work with nurses in medical units who did not report to me and with whom I had minimal contact. By choosing to work with medical nurses, I ensured that the project nurses did not report to me. My recruitment strategy included working with the head nurses and attending unit huddles where I informed unit staff of the upcoming educational activity and discussed consent, anonymity, and voluntariness. All informed consent was obtained using BRANY verbal consent (Appendix E) and Walden's Consent Form for Anonymous Questionnaires (Walden University, 2019). These were presented to all participants and read to every group of participants before each session. The project was first discussed with the CNO, DON for the units, and care experience officer and later presented to the project team for review and critique.

Consent was obtained from frontline staff who volunteered to participate in the project, and these volunteers were asked to complete pre and post education conviction and confidence surveys. Participants were asked to use a unique alphanumeric code on both the pre and post surveys. Pre surveys were distributed on white paper and post surveys were distributed on green paper for easy identification. To ensure participant protection, the data collected were coded, deidentified, and aggregated to maintain

anonymity and protect data integrity. The information collected was secured to prevent unauthorized access.

Analysis and Synthesis

I verified that the journals relevant to this project were peer reviewed through the Walden University Library Ulrich's periodicals directory and used a literature review matrix to help organize the sources for use. Once all the information had been obtained and organized, I used the structure, process, and outcome concepts of the Donabedian (1966) model to design the project.

Guided by the Donabedian (1966) model, I approached this project's structure by working with the hospital's research department to gain site approval. The staff of the research department assisted with the steps of working with BRANY for site IRB approval and System to Track and Approve Research (STAR) approval (an additional requirement at the project institution), which enabled them to process a data use agreement. The research department also facilitated the signing of the Site Approval Form for Staff Education Doctoral Project (Walden 2019), which allowed me to collaborate with stakeholders at the institution to verify the identified need and to get their input for the educational content and process. They also helped me gain better insight into characteristics of the project organization that contributed to the success of this project. Obtaining IRB approval from Walden University and the project institution allowed me to pursue the project and build a project team to assist with project development and validate the educational offering for use with frontline nurses.

The literature review, aggregate publicly posted patient experience scores, and input from stakeholders and project team served as the foundation for the development of the project. The educational program used examples of practices at this institution as articulated by project participants, who acknowledged the existence of gaps in patient medication education as part of the discussion preceding the introduction of teach-back concepts and tools. The teach-back education consisted of relevant aspects from the preapproved teach-back toolkit, which I reviewed with the project team and key stakeholders. I worked with the nurse educators to obtain a 4-point Likert scale that they routinely used to evaluate their educational activities. I also used a 4-point Likert scale when I presented the educational offering to the project team for their critique and evaluation. Data from the Likert scales were analyzed and presented along with the recommendations in Section 4. The feedback from the project team suggested that the project met the needs of the frontline nurses.

Staff education was limited to 45-minute sessions conducted during work hours. I sought verbal consent from staff volunteers to complete pre and post education self-assessment using the Always Use Teach-Back! Conviction and Confidence Scale (Abrams et al., 2012b). Each volunteer project participant was provided with color-coded surveys to facilitate identification of pre and post surveys. The survey tools were collected from project participants at the end of each educational activity. All completed surveys and scales used to evaluate this project remained anonymous, and the completed tools were secured in a locked area at the institution.

The project outcome was evaluated through a comparison of the results of the pre and post staff responses to the self-evaluated Conviction and Confidence Scale (Abrams et al., 2012b). These were analyzed using descriptive statistics to determine whether there was any statistical significance between the pre and post education conviction and confidence. The project teams' evaluations of the educational program were analyzed using descriptive statistics to show frequency of responses, and their narrative comments are reported in Section 4.

Summary

To address the need for nurses to develop conviction and confidence in teaching patients to enhance the quality of medication teaching, a teach-back program using aspects of the AHRQ approved teach-back method was developed and presented to a project team. After review and acceptance of the content, it was rolled out to frontline unit staff nurses. The program was aimed at helping nurses increase their conviction and confidence with using the teach-back method to help improve the quality of medication education for patients. All evidence used in the development and assessment of the program was obtained through reliable sources obtained from peer-reviewed journals, seminal literature, stakeholder input, project team evaluation and input, and staff self-evaluation. The education was based on the AHRQ endorsed teach-back method, for which permission was obtained (Appendix C). In the next section, I report on the results of the project team evaluation of the education program as well as the pre and post education conviction and confidence surveys and commitment to use teach-back responses from project participants.

Section 4: Findings and Recommendations

Introduction

After all ethical and legal standards were met and the appropriate approvals obtained (BRANY IRB# 21-08-369 and Walden IRB# 10-22-21-0669313), I used Donabedian's structure, process, outcome model (Donabedian, 1966a) to guide the organization, implementation, and evaluation of the project. This framework was chosen to address the need for improved provider–patient communication, which affects the quality of medication education. Using the Donabedian model, I reviewed the literature as a source of evidence to assist with development of the project. I then collaborated with some key stakeholders at the institution—the CNO, the care experience officer, and the DON for the medical units—to discuss and to get their approval and direction for the planned education and evaluation. Based on the evidence from the literature review, the implementation plan, and the anticipated impact of teach-back education, the stakeholders voiced support for the project. The DON offered to have the project done with nursing staff from two of her medical units and gave me permission to contact the head nurses. I met with the head nurses of the two proposed project units to inform them about the project and get their opinions. The respective unit head nurses bought into this project and informed me of the best times to attend unit huddles and conduct educational sessions. Staff on the project units were then approached at unit huddles to begin recruitment. They were informed about the project and of the importance of voluntariness and of their right to decline participation or to opt out at any time.

I convened a virtual meeting with the project team to present the educational offering to them and get their input. This team consisted of six members, who sat through the 45-minute session to assess the material, presentation, educational tools, and the plan for maintaining anonymity. The project team comprised the care experience officer, two doctorally prepared nurses, two assistant directors of nursing (ADNs) who covered the medical units, and one ADN for ambulatory care. After the educational session, they completed an evaluation of the content of the offering and of my knowledge of the subject. The findings from the project team evaluation as well as from the pre and post surveys are reported in the next section and serve as the other sources of evidence.

Findings and Implications

I prepared the educational offering with input from various institutional stakeholders before presenting it to the project team for their critique. The project team's role was to ensure that it was appropriate for the frontline nurses for whom it was designed. The recruitment process was done at unit huddles over a 2-week period in order to inform and recruit day and night nurses and get maximum voluntary participation. I worked with the nursing education department to secure a room for the educational sessions, and department staff provided access to a conference room that was strategically located and had appropriate audiovisual material.

A total of six identical educational sessions were conducted with nurses from the medical units at the project institution. All nurses were invited to attend the sessions, even if they declined to participate in the project; they were informed during recruitment that they could opt in or out at any time. Nurses were allowed time to attend the

advertised sessions based on unit needs, and each session had between two and five volunteer nurse participants. The goal was to get a minimum of 20 frontline medicine nurses who administered medication and did medication teaching; all nurses on the unit were eligible. This number represented approximately 40% of the active full-time nurses on the units at that time. All nurses who attended the sessions were full-time employees, and ultimately a total of 21 consented to participate in the project.

At the beginning of each session, the verbal consent scripts were read, and nurses were again given the option of declining or discontinuing participation at any stage. This resulted in one nurse opting out at the third session; however, she chose to remain for the entirety of the educational offering. Project participants who were interested in participating were asked to indicate their consent by placing identical alphanumeric identifiers from a random selection on each sheet of paper in a package supplied. The package included the BRANY IRB verbal consent script, the Walden Consent for Anonymous Questionnaires, color-coded pre and post conviction and confidence surveys, the 10 Elements of Competence for Using Teach-Back Effectively (Appendix G), and a project evaluation, which contained a commitment-to-use question.

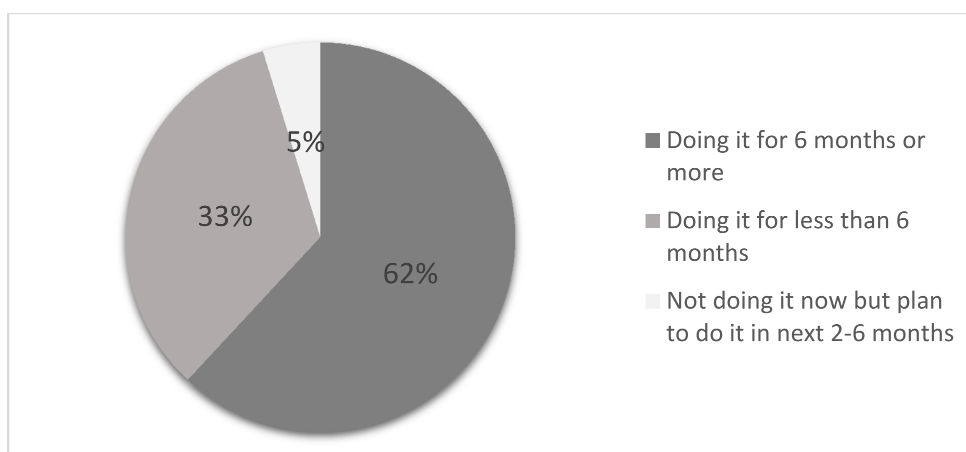
All sessions were conducted in a designated closed conference room during staff working hours when staff were given approximately 1 hour to attend. Consenting nurse participants completed the pre survey before sitting through the educational session. The session consisted of a PowerPoint presentation, which addressed LHL and its effects on the community served by the institution and introduced teach-back as a method to address some of the issues identified in the discussion. Prior to completing the

posteducation conviction and confidence survey and the project evaluation, nurses were asked to simulate teach-back medication education with their peers and to discuss how they felt during the experience as an opportunity to integrate what they had learned and to initiate and discuss the teach-back intervention. At the end of the session, participants also responded to a question about their future commitment to use teach-back.

Most participants completing the pre-education survey indicated that they often verified patient understanding by asking patients to explain the content of education in their own words, as shown in Figure 1. One nurse indicated that she had never asked patients to explain in their own words; seven nurses (33%) had used that method for verifying patient understanding for 6 months or less, coinciding with their time of employment at the institution; and 13 nurses (62%) said that they had done so for more than 6 months.

Figure 1

Pre-Education—Nurses Asking Patients to Explain in Their Own Words

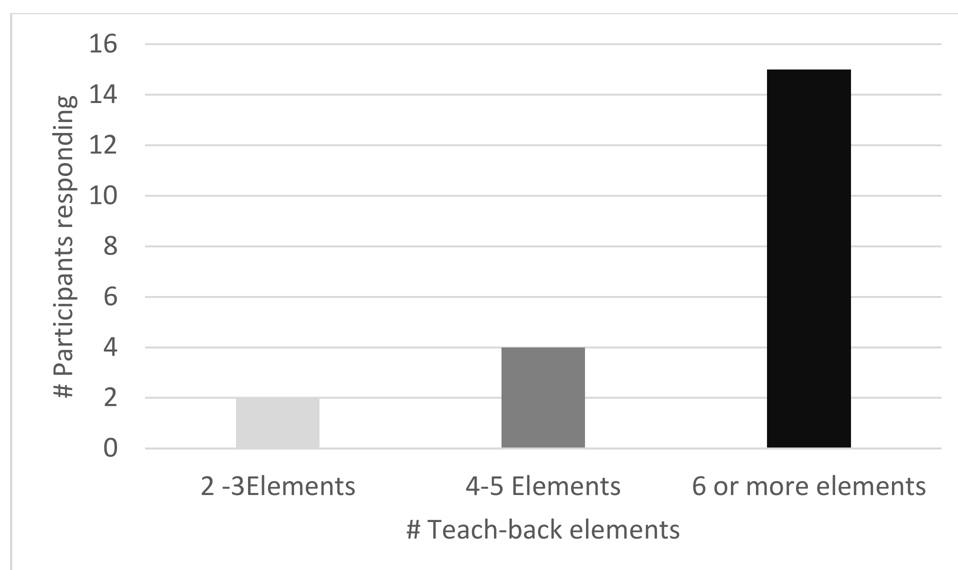


During the session, we reviewed all 10 Elements of Competence for Using Teach-Back effectively (Appendix G), and participants were asked to identify the use of the

elements in two short video scenarios depicting patient teaching, the longest being 48 seconds in length. They were also asked to indicate whether they had used any of the elements in their interactions with their patients. Figure 2 shows their responses: 15 nurses (71%) had used six or more elements, four nurses (20%) had used four to five elements, and two nurses (10%) had used two to three elements in the week prior to the educational session.

Figure 2

Participants' Reports of Number of Teach-Back Elements Used in the Past Week



The impact of the educational offering was assessed through participants' pre- and posteducation survey responses to the Always Use Teach-Back! Conviction and Confidence Scale (Abrams et al., 2012b; Appendix F). Results from the pre and post surveys were compared to determine whether participants expressed different attitudes in their perceptions of conviction and confidence to use the teach-back method after the educational offering. SPSS inferential statistics were used to analyze the data presented in

Table 1. Paired *t* test was used to analyze the pre and post conviction and the pre and post confidence surveys of the 21 respondents to determine whether there was a statistically significant change between their pre and post survey responses. Participants' mean pre conviction survey scores were (M = 9.62, SD = 0.740) before teach-back education, and post survey conviction scores were (M = 9.86, SD = 0.478). Results of the two-tailed *t* test (t = -2.024), (p = 0.056) indicated that there was no significant difference in nurses' conviction to use teach-back before and after the educational session.

Nurses' responses to the question regarding pre- and posteducation confidence in using the teach-back method were also analyzed using paired *t* test, also reported in Table 1. Mean values were compared for participants' pre- and posteducation confidence scores. The pre-education mean was lower (M = 8.71, SD = 1.007) than the posteducation confidence scores (M = 9.62, SD = 0.669) and was statistically significant (t = -4.663), (p < 0.001). This suggests that nurses felt more confident in using teach-back after the educational session. A similar increase in nurses' confidence in using teach-back after they were educated on the method was also reported in a study by Ryan-Madonna et al. (2019).

Table 1

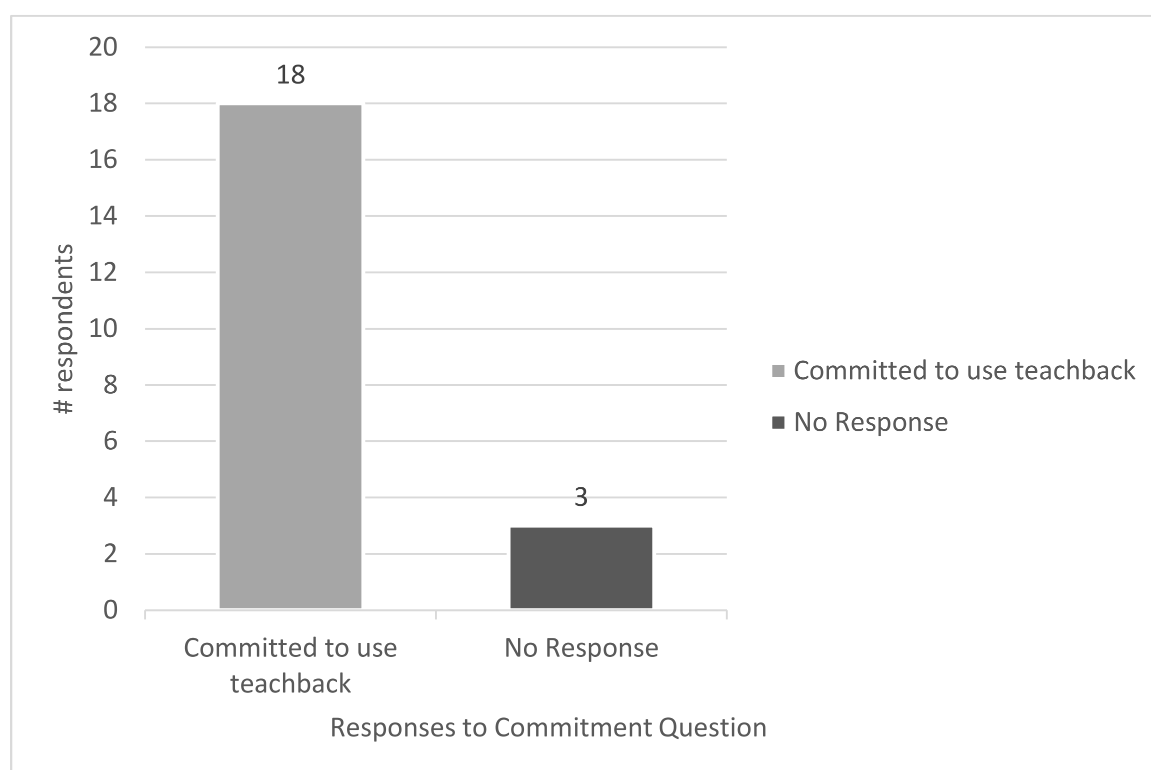
Analysis of Pre- and Posteducation Conviction and Confidence Surveys

Subheadings	Pre survey		Post survey		*t*	*P*	Cohen's *d*
	Mean	*SD*	Mean	*SD*			
Convinced—important to use TB	9.62	.740	9.86	.478	2.024	.056	.539
Confident in ability to use TB	8.71	1.007	9.62	.669	4.663	.000	.889

Participants were also encouraged to respond to the commitment to use teach-back question in the project evaluation. Figure 3 shows that 18 of the 21 participants (86%) indicated a commitment to use teach-back in future patient medication education. Three participants (14%) declined to respond to the question.

Figure 3

Posteducation Commitment to Use Teach-Back Responses



Recommendations

This project highlights the need for educating nursing staff to use teach-back tools and strategies to improve the quality of patient education. Patient education remains a key function of nursing, but nurses are still finding it difficult to teach patients and to evaluate their understanding (Richard et al., 2018). The recommendation is to use the low-cost

teach-back method to fill the nurse–patient communication gap and enhance the quality of patient education. The results of this study indicate that disseminating the teach-back education to all nursing staff in this institution should lead to an improvement in patient teaching by boosting nurses' confidence to use the method. The value of improved quality patient medication may lead to better medication adherence over time.

Contribution of the Doctoral Project Team

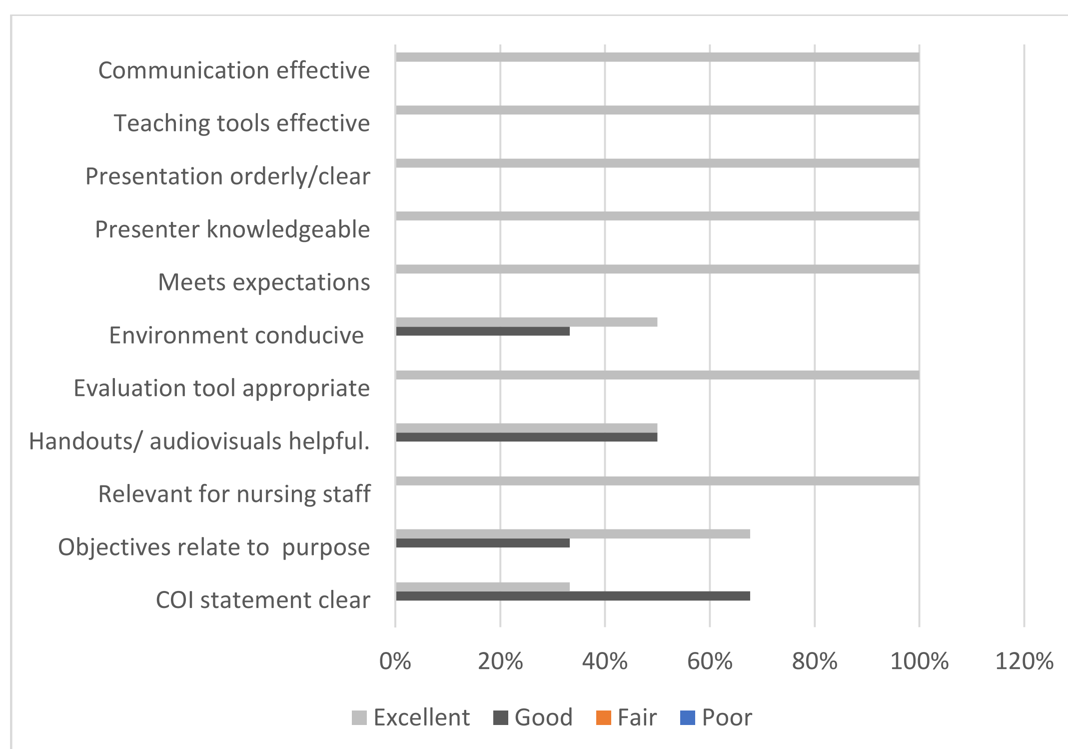
I remained in contact with the project team throughout the planning phase of the project. This helped me to design the educational offering to suit the setting and audience. The members of the team provided a source of evidence after reviewing the educational offering and offered suggestions for the postproject continuation of teach-back education. To get approval for the final offering, I convened a meeting with six project team members and did a virtual presentation using the proposed education outline and materials. During the virtual meeting, the educational offering in its completed format and all the participant protections were explained and shown, including the verbal consent and plan for maintaining anonymity and protecting the data. The project team members were allowed to question, comment, and clarify if needed, and at the end, they submitted their evaluations with accompanying comments.

One of the original six team members was unable to attend the presentation and was replaced by a doctoral nurse who had shown an interest in the project. Figure 4 shows the results of the project team's evaluation of the offering. The evaluation was rated poor, fair, good, or excellent on a 4-point Likert scale. Overall, the project team results showed a collective agreement concerning the educational offering. Responses

indicated that 100% of the members of the project team felt that the information met expectations and was relevant for nurses, and that the methods and tools chosen were appropriate/effective, while the audiovisual materials were rated as good by 50% and excellent by 50%. Project team members also felt that the objectives related to the purpose, as shown by a 68% good rating and a 33% excellent rating.

Figure 4

Project Team Evaluation of Educational Offering



The project team also offered a few complimentary comments and some other valuable comments and suggestions, which will be discussed with the institution's leadership in the postproject phase.

Project Team Comments and Recommendations

- Very good project, especially for elderly patients returning to nursing homes.
- Consider patient's learning preference in the initial assessment.
- I think this is a great project and much needed with the patient population in this institution.
- We should insist on having patient discharges projected at least 1 day before and have a person/team concentrate on teach-back discharge education.
- It is very important for patients to be able to understand their medication regime and for nurses to value the importance that teach-back represents.
- Excellent presentation/discussion on teach-back methodology.
- Presenter was clear and concise and invited conversation and feedback.
- Great presentation, thank you for sharing the information with me.

The feedback from the project team supports my recommendation that teach-back education should be included as part of routine nursing orientation as well as in annual competencies, so that it becomes the norm. This repetition could help increase nurses' confidence in adopting the teach-back method not only for medication teaching, but also in other areas of care. The institution could evaluate the impact of teach-back through patient experience scores as well as through nurses' self-evaluation at recommended intervals.

Strengths and Limitations of the Project

The strengths of this project included the buy-in and endorsement from the institution and the constant support from the stakeholders and research team from the

inception of the project, guiding me through the IRB and institutional approval process. The project was further strengthened by the opportunity to conduct face-to-face interactions with the participants, giving them the opportunity to simulate their learning and to comment on their experiences. The pre- and posteducation surveys allowed for a formative evaluation validated by a statistically significant increase in participants' confidence in using teach-back ($p < .001$) and 86% of the participants indicating their commitment to use teach-back after the educational offering.

The project also had some limitations. Approximately 40% of the units' full-time nurses ($n = 21$) participated in the educational activity. Some of the nurse participants had been exposed to a previous online teach-back program at an earlier point; however, that information was not available for comparison. The time limitations did not allow for a summative evaluation of conviction and confidence at the recommended 1-month and 3-month intervals; neither did it allow for observation of nursing interactions during patient teaching. Patient experience scores related to medication education could not be assessed in the time allotted for the project. Lastly, this project concentrated only on teach-back for medication education and did not deal with the larger application of the teach-back method for patient education.

Teach-back is an approved method for enhancing provider–patient interaction and understanding. The self-reported increase in nurses' confidence demonstrated the immediate impact of focused teach-back education. Future projects could assess the broader application of teach-back education to include other areas of patient teaching and

evaluate the conviction and confidence of staff involved in teach-back education at the prescribed 1- and 3-month intervals for summative evaluation.

Section 5: Dissemination Plan

The project institution's stakeholders would like to ensure that staff are fluent in the language and methods of teach-back for patient education. They have supported this project throughout, and I will present the project outcomes for their review. The resultant increase in confidence after the short educational session should be encouraging. In addition, I will share the results of this project with the medical unit nurses at their huddles:

This institution is seeking a Planetree designation and teach-back is one of the components of this designation. I have been in touch with the care experience director from the inception of this project, and we have discussed the post project goal of continuing teach-back education for all staff who interact with patients.

Analysis of Self

Throughout my work as an obstetric nurse and nurse manager, I have always taken issue with disparities in care related to social determinants of health and barriers to accessing health services. This project has given me a deeper understanding of the reality and awareness of LHL in an environment where the focus and consequences are not well defined. I have a better understanding that even when education is offered on a small scale, the awareness that it can create can have a meaningful impact. This process has been fraught with obstacles, ranging from the length of time it took to get institutional and IRB approval to having the booked conference room double booked and losing the opportunity for conducting additional sessions. Throughout this process, I have learned that I can be patient but persistent, and that I have the mental strength to persevere toward

my goals. After sharing this project with the project team and getting their feedback, I feel more empowered and enthusiastic to make an impact on this profession as a doctorally prepared nurse.

This project strengthened my resolve to use my abilities to make a difference in any way possible. It has also helped me to keep my promise of lifelong learning, and to stimulate others to achieve that goal.

Summary

Healthcare is plagued with many unavoidable and avoidable failures. One of the issues contributing to massive health disruptions and costs is LHL. Patients who do not understand instructions are not likely to adhere to health and medication regimes. This project was developed to address the quality of medication education to the patient community through equipping nurses with a simple, low-cost, approved teach-back method that can be easily taught and readily implemented. This teach-back project was approved by the institution’s stakeholders and project team and shared with unit nurses, who showed an overall increase in confidence to use the method for patient education. The results are encouraging, as nurses who are confident in and committed to using the teach-back method for educating patients should demonstrate better quality medication education.

References

Abrams, M. A., Kurtz-Rossi, S., & Nielsen, G. (2012a). *Always use teach-back! Training toolkit.* https://www.teachbacktraining.org/home

Abrams, M. A., Kurtz-Rossi, S., & Nielsen, G. (2012b, December). *Conviction and confidence scale*. https://www.teachbacktraining.org

Almkuist, K. D. (2017). Using teach-back method to prevent 30-day readmissions in patients with heart failure: A systematic review. *MEDSURG Nursing*, *26*(5), 309–312, 351.

American Association of Colleges of Nursing. (2006). *The essentials of doctoral education for advanced nursing practice*. https://www.aacnnursing.org/Portals/42/Publications/DNPEssentials.pdf

Ayanian, J. Z., & Markel, H. (2016). Donabedian's lasting framework for health care quality. *New England Journal of Medicine*, *375*(3), 205–207. https://doi.org/10.1056/NEJMp1605101

Bakar, Z. A., Fahrni, M. L., & Khan, T. M. (2016). Patient satisfaction and medication adherence assessment amongst patients at the Diabetes Medication Therapy Adherence Clinic. *Diabetes & Metabolic Syndrome: Clinical Research & Reviews*, *10*(2), S139–S143. https://doi.org/10.1016/j.dsx.2016.03.015

Barton, A. J., Allen, P. E., Boyle, D. K., Loan, L. A., Stichler, J. F., & Parnell, T. A. (2018). Health literacy: Essential for a culture of health. *The Journal of Continuing Education in Nursing*, *49*(2), 73–78. https://doi.org/10.3928/00220124-20180116-06

Bazargan, M., Smith, J., Yazdanshenas, H., Movassaghi, M., Martins, D., & Orum, G. (2017). Non-adherence to medication regimens among older African-American adults. *BMC Geriatrics*, *17*, Article 163. https://doi.org/10.1186/s12877-017-0558-5

Benner, P. (1982). From novice to expert. *The American Journal of Nursing*, *82*(3), 402–407. https://doi.org/10.2307/3462928

Bleich, M. R. (2011). IOM report—The future of nursing: Leading change, advancing health: Milestones and challenges in expanding nursing science. *Research in Nursing & Health*, *34*(3), 169–170. https://doi.org/10.1002/nur.20433

Bodenheimer, T. (2018). Teach-back: A simple technique to enhance patients' understanding. *Family Practice Management*, *25*(4), 20–22. https://www.aafp.org/pubs/fpm/issues/2018/0700/p20.html

Botma, Y., & Labuschagne, M. (2019). Application of the Donabedian quality assurance approach in developing an educational programme. *Innovations in Education and Teaching International*, *56*(3), 363–372. https://doi.org/10.1080/14703297.2017.1378587

Bowen, J. F., Rotz, M. E., Patterson, B. J., & Sen, S. (2017a). Nurses' attitudes and behaviors on patient medication education. *Pharmacy Practice*, *15*(2), 1–5. https://doi.org/10.18549/PharmPract.2017.02.930

Brown, M. T., Bussell, J., Dutta, S., Davis, K., Strong, S., & Mathew, S. (2016). Medication adherence: Truth and consequences. *The American Journal of the Medical Sciences*, *351*(4), 387–399. https://doi.org/10.1016/j.amjms.2016.01.010

Caplin, M., & Saunders, T. (2015). Utilizing teach-back to reinforce patient education: A step-by-step approach. *Orthopaedic Nursing*, *34*(6), 365–368. https://doi.org/10.1097/NOR.0000000000000197

Cifuentes, M., Brega, A., Bernard, J., Mabachi, N., Albright, K., Weiss, B., West, D., & Brach, C. (2015). Implementing the AHRQ health literacy universal precautions toolkit. *Agency for Healthcare Research and Quality*. https://www.ahrq.gov/sites/default/files/wysiwyg/professionals/quality-patient-safety/quality-resources/tools/literacy-toolkit/impguide/healthlit-guide.pdf

Crowe, S., Ewart, L., & Derman, S. (2018). The impact of simulation based education on nursing confidence, knowledge and patient outcomes on general medicine units. *Nurse Education in Practice*, *29*, 70–75. https://doi.org/10.1016/j.nepr.2017.11.017

Dinh, H. T. T., Bonner, A., Clark, R., Ramsbotham, J., & Hines, S. (2016). The effectiveness of the teach-back method on adherence and self-management in health education for people with chronic disease: A systematic review. *The JBI Database of Systematic Reviews and Implementation Reports*, *14*(1), 210–247. https://doi.org/10.11124/jbisrir-2016-2296

Dobbels, F., van Damme-Lombaert, R., Vanhaecke, J., & De Geest, S. (2005). Growing pains: Non□adherence with the immunosuppressive regimen in adolescent transplant recipients. *Pediatric Transplantation*, *9*(3), 381–390. https://doi.org/10.1111/j.1399-3046.2005.00356.x

Donabedian, A. (1966). Evaluating the quality of medical care. *The Milbank Memorial Fund Quarterly*, *44*(3), 166–206. https://doi.org/10.2307/3348969

Dragan, K., King, L., Hinterland, K., & Gwynn, R. C. (2015). 2015 *Community Health Profiles Atlas*. on.nyc.gov/chp

Firat Kilic, H., & Dag, S. (2020). The relationship between health literacy and medication adherence in a hypertensive patient population. *International Journal of Caring Sciences*, *13*(1), 101–107.

Ghiasvand, F., Riazi, H., Hajian, S., Kazemi, E., & Firoozi, A. (2017). The effect of a self-care program based on the teach back method on the postpartum quality of life. *Electronic Physician*, *9*(4), 4180–4189. https://doi.org/10.19082/4180

Goeman, D., Conway, S., Norman, R., Morley, J., Weerasuriya, R., Osborne, R. H., & Beauchamp, A. (2016). Optimising health literacy and access of service provision to community dwelling older people with diabetes receiving home nursing support. *Journal of Diabetes Research*, *2016*, 1–12. https://doi.org/10.1155/2016/2483263

Griffey, R. T., Shin, N., Jones, S., Aginam, N., Gross, M., Kinsella, Y., Williams, J. A., Carpenter, C. R., Goodman, M., & Kaphingst, K. A. (2015). The impact of teach-back on comprehension of discharge instructions and satisfaction among emergency patients with limited health literacy: A randomized, controlled study. *Journal of Communication in Healthcare*, *8*(1), 10–21. https://doi.org/10.1179/1753807615Y.0000000001

Hackerson, M. L., Luder, H. R., Beck, A. F., Wedig, J. M., Heaton, P. C., & Frede, S. M. (2018). Addressing primary nonadherence: A collaboration between a community pharmacy and a large pediatric clinic. *Journal of the American Pharmacists Association*, *58*(4), S101-S108.e1. https://doi.org/10.1016/j.japh.2018.04.012

Hersh, L., Salzman, B., & Snyderman, D. (2015). Health literacy in primary care practice. *American Family Physician*, *92*(2), 118–124. https://pubmed.ncbi.nlm.nih.gov/26176370/

Holman, C. K., Weed, L. D., & Kelley, S. P. (2019). Improving provider use of the teach-back method. *Journal for Nurses in Professional Development*, *35*(1), 52–53. https://doi.org/10.1097/NND.0000000000000521

Institute for Safe Medication Practices. (1999). *The Five _Rights_.html*.

Jack, B. A., Kinloch, K., & O'Brien, M. R. (2019). Teaching nurses to teach: A qualitative study of nurses' perceptions of the impact of education and skills training to prepare them to teach end□of□life care. *Journal of Clinical Nursing*, *28*(9–10), 1819–1828. https://doi.org/10.1111/jocn.14786

Jones, J. H., Treiber, L. A., & Jones, M. C. (2014). Intervening at the intersection of medication adherence and health literacy. *The Journal for Nurse Practitioners*, *10*(8), 527–534. https://doi.org/10.1016/j.nurpra.2014.06.014

Kapadia, M. R., White, A. V., Peters, L., Kreiter, C., Koch, K. E., & Rosenbaum, M. E. (2020). Teaching patient-related communication to surgical residents in brief training sessions. *Journal of Surgical Education*. https://doi.org/10.1016/j.jsurg.2020.05.006

King, R. L. (2004). Nurses' perceptions of their pharmacology educational needs. *Journal of Advanced Nursing*, *45*(4), 392–400. https://doi.org/10.1046/j.1365-2648.2003.02922.x

Klingbeil, C., & Gibson, C. (2018). The teach back project: A system-wide evidence based practice implementation. *Journal of Pediatric Nursing*, *42*, 81–85. https://doi.org/10.1016/j.pedn.2018.06.002

Kornburger, C., Gibson, C., Sadowski, S., Maletta, K., & Klingbeil, C. (2013). Using "Teach-Back" to promote a safe transition from hospital to home: An evidence-based approach to improving the discharge process. *Journal of Pediatric Nursing*, *28*(3), 282–291. https://doi.org/10.1016/j.pedn.2012.10.007

Koster, E. S., Philbert, D., van Dijk, L., Rademakers, J., de Smet, P. A. G. M., Bouvy, M. L., & Vervloet, M. (2018). Recognizing pharmaceutical illiteracy in community pharmacy: Agreement between a practice based interview guide and questionnaire based assessment. *Research in Social and Administrative Pharmacy*, *14*(9), 812–816. https://doi.org/10.1016/j.sapharm.2018.01.009

Kripalani, S., Goggins, K., Nwosu, S., Schildcrout, J., Mixon, A. S., McNaughton, C., McDougald Scott, A. M., & Wallston, K. A. (2015a). Medication nonadherence before hospitalization for acute cardiac events. *Journal of Health Communication*, *20*(sup2), 34–42. https://doi.org/10.1080/10810730.2015.1080331

Marcus, C. (2014). Strategies for improving the quality of verbal patient and family education: A review of the literature and creation of the EDUCATE model.

Health Psychology and Behavioral Medicine, *2*(1), 482–495. https://doi.org/10.1080/21642850.2014.900450

Marcus, E. N. (2006). The silent epidemic — The health effects of illiteracy. *New England Journal of Medicine*, *355*(4), 339–341. https://doi.org/10.1056/nejmp058328

McDonald, M., & Shenkman, L. (2018). Health Literacy and Health Outcomes of Adults in the United States: Implications for Providers. *Internet Journal of Allied Health Sciences and Practice*. https://doi.org/10.46743/1540-580x/2018.1689

McNaughton, C. D., Cawthon, C., Kripalani, S., Liu, D., Storrow, A. B., & Roumie, C. L. (2015). Health literacy and mortality: A cohort study of patients hospitalized for acute heart failure. *Journal of the American Heart Association*, *4*(5), e001799. https://doi.org/10.1161/JAHA.115.001799

Miller, T. A. (2016). Health literacy and adherence to medical treatment in chronic and acute illness: A meta-analysis. *Patient Education and Counseling*, *99*(7), 1079–1086. https://doi.org/10.1016/j.pec.2016.01.020

Murphy-Knoll, L. (2007). Low health literacy puts patients at risk. *Journal of Nursing Care Quality*, 22(3), 205–209. https://doi.org/10.1097/01.ncq.0000277775.89652.30

Neiman, A. B., Ruppar, T., Ho, M., Garber, L., Weidle, P. J., Hong, Y., George, M. G., & Thorpe, P. G. (2017). CDC Grand Rounds: Improving medication adherence for chronic disease management — Innovations and opportunities. *MMWR.*

Morbidity and Mortality Weekly Report, 66(45), 1248–1251. https://doi.org/10.15585/mmwr.mm6645a2

Nieuwlaat, R., Wilczynski, N., Navarro, T., Hobson, N., Jeffery, R., Keepanasseril, A., Agoritsas, T., Mistry, N., Iorio, A., Jack, S., Sivaramalingam, B., Iserman, E., Mustafa, R. A., Jedraszewski, D., Cotoi, C., & Haynes, R. B. (2014). Interventions for enhancing medication adherence. *Cochrane Database of Systematic Reviews*, 11. https://doi.org/10.1002/14651858.cd000011.pub4

NYC Health + Hospitals & OneCity Health. (2019). *Community health needs assessment and implementation strategy plan*. https://hhinternet.blob.core.windows.net/uploads/2019/08/chna-2019.pdf#page=36

Oh, E. G., Lee, H. J., Yang, Y. L., & Kim, Y. M. (2019). Effectiveness of discharge education with the teach-back method on 30-day readmission: A Systematic Review. *Journal of Patient Safety*, 17(4), 1. https://doi.org/10.1097/pts.0000000000000596

Community Health Needs Assessment (CHNA) and Implementation Strategy Plan. (2019). https://www.nychealthandhospitals.org/publications-reports/2019-community-health-needs-assessment/

Piña, I. L., Di Palo, K. E., Brown, M. T., Choudhry, N. K., Cvengros, J., Whalen, D., Whitsel, L. P., & Johnson, J. (2020). Medication adherence: Importance, issues and policy: A policy statement from the American Heart Association. *Progress in*

Cardiovascular Diseases, 64, 111-120. https://doi.org/10.1016/j.pcad.2020.08.003

Porter, K., Chen, Y., Estabrooks, P., Noel, L., Bailey, A., & Zoellner, J. (2016). Using teach-back to understand participant behavioral self-monitoring skills across health literacy level and behavioral condition. *Journal of Nutrition Education and Behavior*, *48*(1), 20-26.e1. https://doi.org/10.1016/j.jneb.2015.08.012

Pouliot, A., Vaillancourt, R., Stacey, D., & Suter, P. (2018). Defining and identifying concepts of medication literacy: An international perspective. *Research in Social and Administrative Pharmacy*, *14*(9), 797–804. https://doi.org/10.1016/j.sapharm.2017.11.005

Rajah, R., Ahmad Hassali, M. A., Jou, L. C., & Murugiah, M. K. (2018). The perspective of healthcare providers and patients on health literacy: A systematic review of the quantitative and qualitative studies. *Perspectives in Public Health*, *138*(2), 122–132. https://doi.org/10.1177/1757913917733775

Richard, E., Evans, T., & Williams, B. (2018). Nursing students' perceptions of preparation to engage in patient education. *Nurse Education in Practice*, *28*, 1–6. https://doi.org/10.1016/j.nepr.2017.09.008

Ryan-Madonna, M., Levin, R. F., & Lauder, B. (2019). Effectiveness of the teach-back method for improving caregivers' confidence in caring for hospice patients and decreasing hospitalizations: *Journal of Hospice & Palliative Nursing*, *21*(1), 61–70. https://doi.org/10.1097/NJH.0000000000000492

Schillinger, D., Piette, J., Grumbach, K., Wang, F., Wilson, C., Daher, C., Leong-Grotz, K., Castro, C., & Bindman, A. B. (2003). Closing the Loop: Physician communication with diabetic patients who have low health literacy. *Archives of Internal Medicine*, *163*(1), 83. https://doi.org/10.1001/archinte.163.1.83

Shrank, W. H., Rogstad, T. L., & Parekh, N. (2019). Waste in the US health care system: Estimated costs and potential for savings. *JAMA*, *322*(15), 1501–1509. https://doi.org/10.1001/jama.2019.13978

The Joint Commission. (2007). *Improving health literacy to protect patient Safety.* https://swselfmanagement.ca/uploads/ResourceDocuments/The%20Joint%20Commission%20(2007)%20Improving%20Health%20Literacy%20for%20Patient%20Safety.pdf

U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. (2010). *National action plan to improve health literacy.* https://health.gov/communication/hlactionplan/pdf/Health_Literacy_Action_Plan.pdf

van der Heide, I., Poureslami, I., Mitic, W., Shum, J., Rootman, I., & FitzGerald, J. M. (2018). Health literacy in chronic disease management: A matter of interaction. *Journal of Clinical Epidemiology*, *102*, 134–138. https://doi.org/10.1016/j.jclinepi.2018.05.010

Vashi, A., & Rhodes, K. V. (2011). “Sign Right Here and You’re Good to Go”: A content analysis of audiotaped emergency department discharge instructions.

Annals of Emergency Medicine, *57*(4), 315-322.e1. https://doi.org/10.1016/j.annemergmed.2010.08.024

Viswanathan, M., Golin, C. E., Jones, C. D., Ashok, M., Blalock, S. J., Wines, R. C. M., Coker-Schwimmer, E. J. L., Rosen, D. L., Sista, P., & Lohr, K. N. (2012). Interventions to improve adherence to self-administered medications for chronic diseases in the United States: A Systematic Review. *Annals of Internal Medicine*, *157*(11), 785. https://doi.org/10.7326/0003-4819-157-11-201212040-00538

Walden University. (2019). *Manual for staff education Doctor of Nursing Practice (DNP) scholarly project*. https://academicguides.waldenu.edu/researchcenter/osra/dnp

Yen, P. H., & Leasure, A. R. (2019). Use and effectiveness of the teach-back method in patient education and health outcomes. *Federal Practitioner*, *36*(6), 284–289. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6590951/

Appendix A: Biomedical Research Alliance of New York

Institutional Review Board Approval

To: Dawn Africa, MS, RNC

From: Melissa Robilotto, CIP, Senior IRB Coordinator

CC: BRANY IRB File # 21-08-369-11(HHC)
Christina Pili, NYC H+H Research Administration
Research Coordinator

Date: 09/14/2021

Event ID: # 186925

Re: **BRANY IRB Approval for Investigator Initiated Protocol DNP-2021**

Protocol Title: **Teach-Back Program to Improve the Quality of Patient Medication Education**

1. **BRANY IRB Decision:** BRANY IRB conditionally approved the above referenced research project. The BRANY IRB approval date for this submission is 09/14/2021, which is the date the conditions of approval were satisfied. Modifications are in accord with those suggested by BRANY IRB.

   Important Note(s):
   a. **All research must be conducted in accordance with this approved submission. Any changes to the approved study must be reviewed and approved by the BRANY IRB prior to implementation, except when necessary to eliminate an apparent immediate hazard to the subject.**
   b. **All subjects are to be consented with the stamped, BRANY IRB-approved consent form(s).**
   c. **Unanticipated problems (including serious adverse events, if applicable) must be reported to BRANY IRB within 5 days of discovery using xForm#16 (Reportable Event xForm)**
   d. **Any complaints or issues of non-compliance must be immediately reported to BRANY IRB.**

   **This approval requires that all procedures and activities are performed in accordance with relevant state and local law (including tribal law, when applicable).*

2. **Items Reviewed/Approved:**
   - Investigator Initiated Protocol DNP-2021 – Date March 2021
   - Verbal Consent Script Template (Version A, B)
     - Modifications were incorporated as indicated in the enclosed redlined version.
   - Teach Back Conviction and Confidence Scale (BRANY Stamp Version 09/14/2021)
   - Teach Back Coaching (BRANY Stamp Version 09/14/2021)
   - Teach back Observation Tool (BRANY Stamp Version 09/14/2021)
   - 10 Elements of Competence for using Teach Back Effectively (BRANY Stamp Version 09/14/2021)
   - Coaching to Always use Teach back (BRANY Stamp Version 09/14/2021)

3. **Consent – Waiver of Documentation**
   BRANY IRB determined that your request for waiver of documentation of informed consent satisfies the criteria set forth in 45 CFR 46.117(c).

4. **Study Personnel Approved to Participate in this Study:**
   a. Dawn Africa, MS, RNC

5. **Clinical Trial Agreement Execution:**
   When applicable, this project may not commence without a fully executed Clinical Trial Agreement.

6. **Other Required Approvals:** Additional NYC Health + Hospitals central office approval is required for studies conducted at any NYC H+H facilities. Please obtain this approval from your local facility review committee, or go to: https://star.nychhc.org and click on **PI and Reviewers only** to begin the process. Instructions are available for first time users.

7. **Non-Expiring IRB Approval**:
   This study was reviewed under the Revised Common Rule (2018 Requirements) and therefore does not require continuing review in accordance with 45 CFR 46.109(f)(1)(i).

   However, BRANY IRB requires you "check in" at least annually to ensure your study status is up to date and in compliance. Your **Annual Report** to BRANY IRB is due on (submit xForm: 12-ANNUAL REPORT). If the status of the research changes, or it is completed prior to this date, you must notify the IRB (submit xForm: 04-Study Status Change-Closed/Enrollment Closed

If you have any questions or require any additional information, please call me at [redacted] or send an email to me at [redacted]. Thank you.

Appendix B: Walden University Institutional Review Board Approval

4/3/22, 3:39 PM Mail - Dawn Africa - Outlook

Dear Dawn Africa,

This email is to confirm that, based on your responses to Form A, your DNP study appears to fall within the parameters that the IRB pre-approved for a DNP Staff Education project, conditional upon the approval of the project partner, as documented in the partner's signed Appendix A site agreement and data sharing agreement which will need to be submitted to the Walden IRB when obtained. The student may not commence the project until the Walden IRB confirms receipt of that Appendix A site agreement and data sharing agreement.

Your approval # is 10-22-21-0669313. You will need to reference this number in your final doctoral study and in any future funding or publication submissions. You are required to use the consent form provided in the DNP Staff Education Manual. A copy of this consent form tailored to include your IRB approval number is attached, and no edits may be made to this approved text.

Your IRB approval expires on October 21, 2022 (or when your student status ends, whichever occurs first). One month before this expiration date, you will be sent a Continuing Review Form, which must be submitted if you wish to collect data beyond the approval expiration date.

Your IRB approval is contingent upon your adherence to the exact procedures described in the DNP Staff Education Manual and the final version of the IRB form that has been submitted as of this date. This includes maintaining your current status with the university. Your IRB approval is only valid while you are an actively enrolled student at Walden University. If you need to take a leave of absence or are otherwise unable to remain actively enrolled, your IRB approval is suspended. Absolutely NO participant recruitment or data collection may occur while a student is not actively enrolled.

If you need to make any changes to your project procedures, you must obtain IRB approval by submitting the IRB Request for Change in Procedures Form. You will receive confirmation with a status update of the request within 10 business days of submitting the change request form and are not permitted to implement changes prior to receiving approval. Please note that Walden University does not accept responsibility or liability for doctoral scholarship activities conducted without the IRB's approval, and the University will not accept or grant credit for student work that fails to comply with the policies and procedures related to ethical standards in research and scholarship.

When you submitted your IRB application, you made a commitment to communicate both discrete adverse events and general problems to the IRB within 1 week of their occurrence/realization. Failure to do so may result in invalidation of data, loss of academic credit, and/or loss of legal protections otherwise available to the doctoral student.

Both the Adverse Event Reporting form and Request for Change in Procedures form can be obtained on the Tools and Guides page of the Walden website: https://academicguides.waldenu.edu/research-center/research-ethics/tools-guides

Doctoral students are expected to keep detailed records of their project activities (i.e., participant log sheets, completed consent forms, etc.) for the same period of time they retain the original data. If, in the future, you require copies of the originally submitted IRB materials, you may request them from Institutional Review Board.

Both students and faculty are invited to provide feedback on this IRB experience at the link below:
http://www.surveymonkey.com/s.aspx?sm=qHBJzkJMUx43pZegKlmdiQ_3d_3d

Sincerely,
Libby Munson
Research Ethics Support Specialist
Research Ethics, Compliance, and Partnerships
Walden University

Notification of Approval to Proceed to to Final Study Stage

You forwarded this message on Thu 12/23/2021 1:55 PM

W

workflow@laureate.net

Wed 12/22/2021 7:20 PM

To: Dawn Africa

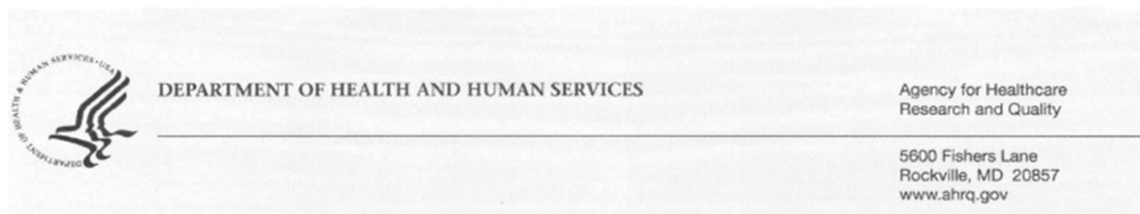
Cc: Tanya M. Cohn; Cassy L. Taylor

Congratulations! Your Walden Institution Review Board application has been approved. As such, you are approved by Walden University to proceed to to the final study stage.

If you have questions about the final study process, please contact dnp@mail.waldenu.edu.

Reply | Reply all | Forward

Appendix C: Agency for Healthcare Research and Quality Permission to Use Teach-Back



November 7, 2018

Dawn Africa
DNP student
Walden University

Dear Ms. Africa:

This signed letter constitutes formal permission from the Agency for Healthcare Research and Quality (AHRQ) for you to reprint and use in your DNP project at Walden University a number of AHRQ materials on the Teach-Back Method for ensuring patient understanding of diagnoses and treatments. These include four items from the *Guide to Improving Patient Safety in Primary Care Settings by Engaging Patients and Families* (https://www.ahrq.gov/professionals/quality-patient-safety/patient-family-engagement/pfeprimarycare/teachback.html):

- The Teach-Back Quick Guide, poster and pocket-card versions
- Teach-Back: A Guide for Staff
- Are You Using Teach-Back? Survey
- The Teach-Back Interactive Training Module

In addition, you have permission to use the following as well:

- Use the Teach-Back Method (Tool 5) in the *AHRQ Health Literacy Universal Precautions Toolkit*, 2nd edition. (https://www.ahrq.gov/professionals/quality-patient-safety/quality-resources/tools/literacy-toolkit/healthlittoolkit2.html)
- The SHARE Approach—Using the Teach-Back Technique: A Reference Guide for Health Care Providers. (Tool 6 from the SHARE Approach Workshop Curriculum; https://www.ahrq.gov/professionals/education/curriculum-tools/shareddecisionmaking/tools/tool-6/index.html

This permission is for reprinting and distribution on a noncommercial basis for use in your DNP program,

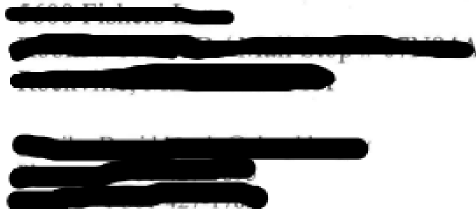
If you want to adapt the text, or use your hospital's logo, you cannot also use the AHRQ logo, but instead use the following statement at the end of the text, "Adapted with permission of the Agency for Healthcare Research and Quality."

As I explained in my email of November 6th, the Conviction and Confidence Scale is part of the Always Use Teach-Back Web site (http://www.teachbacktraining.org/), which is copyrighted. Reproducing materials from this Web site requires permission from the copyright holder, Mary Ann Abrams, MD, MPH. I provided you with her contact information in my earlier email.

Best wishes with the success of your doctoral program.
DNP Program

Sincerely,

David I. Lewin, M.Phil.
Health Communications Specialist/Manager of Copyrights & Permissions
Office of Communications
Agency for Healthcare Research and Quality



Appendix D: Permission to Use Always Use Teach-Back! Toolkit

RE: Requesting to use Teach-Back meateraials for DNP project

[redacted]>
Fri 11/16/2018 10:58 AM
To: Dawn Africa

Hello Dawn.

Thank you for your interest in the Always Use Teach-back! Toolkit.

We created the *Always Use Teach-back!* Toolkit to help individuals and organizations improve their use of teach-back. You are welcome to link to it and use it in your educational offerings. It is preferred that the interactive learning module content be used together (not just isolated video clips) since it is intended to be a package. The associated tools (pdfs and videos, specifically the Conviction and Confidence Scale) can be used as needed to supplement your training/project.

When using the Toolkit, please use this suggested citation: Abrams MA, Rita S, Kurtz-Rossi S, Nielsen G. Always Use Teach-back! Toolkit. 2012. www.teachbacktraining.org.

I would appreciate hearing more about how your project goes. Where is Walden University?

Thank you and best wishes with your work.

Mary Ann

Mary Ann Abrams, MD, MPH
GME Quality Improvement Medical Director
Ambulatory Pediatrics

From: Dawn Africa <dawn.africa@waldenu.edu>
Sent: Monday, November 05, 2018 7:32 PM
To: Abrams, Mary Ann [redacted]>
Subject: Requesting to use Teach-Back meateraials for DNP project

[WARNING: External Email - Use Caution]

Appendix E: Biomedical Research Alliance of New York Verbal Consent Script

BIOMEDICAL RESEARCH ALLIANCE OF NEW YORK

INSTITUTION/ORGANIZATION

Verbal Consent Script Template

Key Information Statement
The purpose of this study is to evaluate the impact of teach-back education on study participants. Study subjects will complete a pre-education survey followed by a 45- minute educational offering and then a post education survey and respond to a commitment to use teach-back question. This is a one -time offering. Participation is completely voluntary. You can decline participation. There is no guaranteed benefit to you. There is the risk of loss of information collected for this study, however no identifying information will be collected.

If you are interested in learning more about this study, please continue to listen, and I will discuss additional information related to this study such as the risks, benefits, procedures, alternatives, and contact information.

My name is Dawn Africa and I am conducting a study as a requirement for completion of my DNP project for Walden University. This study is to evaluate the impact of teach back education on nurses; to determine whether nurses receiving teach back education will self-report an increase in conviction and confidence to use this method when teaching patients. We are asking you to consider being a part of this study because you participate in daily medication teaching for patients. We expect about 20 nurses to participate in this study. If you agree to be in the study, your participation will take approximately 1hour and 30mins.

All participants will be asked to choose their own unique identifiers which they will place on the survey forms; to complete a pre-education self-assessment, participate in a 45minute educational session, after which they will complete a post-education self-assessment and respond to a commitment to use teach-back question.

There are no physical risks to participating in this study, and the unique identifiers chosen by participants will maintain their anonymity.

There are no guaranteed benefits to you as a result of your participation in this study, but we hope that the data collected will add to the knowledge about how a targeted teach-back program will impact nurses' conviction and confidence to use the teach-back method for patient education.

An alternative to participating in this research is to decline participation.

There will be no costs to you.

You will not be paid for participating in this study.

Your participation is completely voluntary. You may discuss this study with family, and friends before you decide whether you would like to participate.

Version A, B
Page 1 of 2

You do not have to take part in the study or finish it. If you don't take part, it won't affect your employment status. If those conducting the study think it's not in your best interest to continue or decide to stop the study, we will end your participation.

All study information collected by the study team will be kept confidential and only reported as aggregated data. This study does not involve any protected health information. We are asking for your permission to use the survey information that we collect during this research. The information will be shared with the people or organizations that oversee research. Some of the people or organizations that oversee research may not be subject to privacy laws, which means the information may no longer be covered by federal privacy laws.

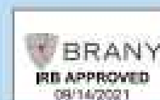
Once you provide permission, it will not expire. But you can withdraw from the study or cancel your permission for us to use your information at any time. If you decide you don't want your information used, or if you have any questions or complaints, you may contact a person not on the research team at the Biomedical Research Alliance of New York Institutional Review Board at (516) 318-6877 or at www.branyirb.com/concerns-about-research. Information that was already collected may still be used and given to others.

Study-related costs associated with your being in this study will be paid by Dawn Africa. You will not be charged or held responsible for any costs.
Do you have any questions about the information I have shared with you?

Are you interested in participating in this study at this time?

____
Person Obtaining Consent

Appendix F: Always Use Teach-Back! Conviction and Confidence Scale



Conviction and Confidence Scale

Fill this out before you start using teach-back, and 1 and 3 months later.

Name: ____

Check one: ◯ Before - Date: __________

◯ 1 month - Date: __________

◯ 3 months - Date: __________

1. On a scale from 1 to 10, how **convinced** are you that it is important to use teach-back (ask patients to explain key information back in their own words)?

Not at all important — Very Important

1 2 3 4 5 6 7 8 9 10

2. On a scale from 1 to 10, how **confident** are you in your ability to use teach-back (ask patients to explain key information back in their own words)?

Not at all confident — Very Confident

1 2 3 4 5 6 7 8 9 10

3. How often do you ask patients to explain back, in their own words, what they need to know or do to take care of themselves?

◯ I have been doing this for 6 months or more.

◯ I have been doing this for less than 6 months.

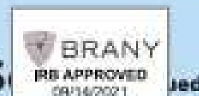
◯ I do not do it now, but plan to do this in the next month.

◯ I do not do it now, but plan to do this in the next 2 to 6 months.

◯ I do not do it now and do not plan to do this.

Iowa Health System · Picker Institute · Des Moines University · Health Literacy Iowa

Conviction and Confidence S[...]ued



4. Check all the elements of effective teach-back you have used **more than half the time in the past work week.**

- ◯ Use a caring tone of voice and attitude.
- ◯ Display comfortable body language, make eye contact, and sit down.
- ◯ Use plain language.
- ◯ Ask the patient to explain, in their own words, what they were told.
- ◯ Use non-shaming, open-ended questions.
- ◯ Avoid asking questions that can be answered with a yes or no.
- ◯ Take responsibility for making sure you were clear.
- ◯ Explain and check again if the patient is unable to teach back.
- ◯ Use reader-friendly print materials to support learning.
- ◯ Document use of and patient's response to teach-back.
- ◯ Include family members/caregivers if they were present.

Notes: ____

____

____

____

____

____

____

____

____

____

____

IOWA HEALTH SYSTEM
Picker Institute
DES MOINES UNIVERSITY
Health Literacy Iowa

Appendix G: 10 Elements of Competence for Using Teach-Back Effectively

10 Elements of Competence for Using Teach-back Effectively

1. Use a caring tone of voice and attitude.
2. Display comfortable body language and make eye contact.
3. Use plain language.
4. Ask the patient to explain back, using their own words.
5. Use non-shaming, open-ended questions.
6. Avoid asking questions that can be answered with a simple yes or no.
7. Emphasize that the responsibility to explain clearly is on you, the provider.
8. If the patient is not able to teach back correctly, explain again and re-check.
9. Use reader-friendly print materials to support learning.
10. Document use of and patient response to teach-back.

What is Teach-back?

- A way to make sure you—the health care provider—explained information clearly. It is not a test or quiz of patients.
- Asking a patient (or family member) to explain **in their own words** what they need to know or do, in a caring way.
- A way to check for understanding and, if needed, re-explain and check again.
- A research-based health literacy intervention that improves patient-provider communication and patient health outcomes[1].

[1] Schillinger, 2003