

THE EFFECTIVENESS OF PATIENT EDUCATION UTILIZING THE TEACH-BACK
METHOD TO IMPROVE PATIENT SATISFACTION

A Scholarly Project

Submitted to the

Faculty of Liberty University

In partial fulfillment of

The requirements for the degree

Of Doctor of Nursing Practice

By

Gladys Cajucom-Apuli

Liberty University

Lynchburg, VA

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Scholarly Project Chair Approval:



Dr. Sharon Kopsis, Ed. D, MS, RN, NP-C, CNE '91

Date:

ABSTRACT

The purpose of this Evidence-Based Project is to determine the effectiveness of using “teach-back” method in giving education to patients receiving chemotherapy and how this method can increase patient satisfaction with understanding of medication action and side effects. Teach-back method is a way of checking patient’s understanding by asking them to state in their own words the information about their health. It is a way to confirm that the explanations given by their provider is understood. Teach-back method can improve patient’s understanding and adherence, decrease call backs and cancelled appointments. This project was developed to improve the organization’s patient satisfaction survey released in October of 2019 which showed only 61% of patients reported that staff “always” explained about medicines before giving it to them. The organization received a 2 out of 5 stars rating for this particular measure. Providing effective chemotherapy education can be challenging especially in a busy outpatient hospital oncology setting however patient education is essential to promote patient safety, optimal dosing, and adherence to the treatment plan. Participants of this project were exclusive to patients who have Medicare. Chemotherapy education utilizing the teach-back method was conducted. Four weeks after the intervention follow up patient satisfaction survey was completed (N=35) and the results were compared to the results of the previous patient satisfaction survey.

Keywords: Oncology, medication, chemotherapy, education, teach-back method, patient education, quality of life, symptom control, nursing, patient satisfaction, and cancer.

Dedication

This scholarly project is dedicated to my family who encouraged me to pursue my dreams and finish my Doctoral of Nursing Practice Degree.

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List of Abbreviations (Example)

Agency for Healthcare Research and Quality (AHRQ)

American Cancer Society (ACS)

American Society of Clinical Oncology (ASCO)

Centers of Medicare and Medicaid Services (CMS)

Collaborative Institutional Training Initiative (CITI)

Cumulative Index to Nursing and Allied Health Literature (CINAHL)

Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS)

Institute for Healthcare Improvement (IHI)

Institutional Review Board (IRB)

National Cancer Institute (NCI)

Problem/Patient/Population Intervention/Indicator Comparison Outcome (PICOT)

Total Quality Management (TQM)

The clinical practice of cancer care is becoming increasingly complex due to the advancement of medical knowledge, increased demand for provider time, and patients getting more involved with their care. In the United States, an estimated 1,688,780 new cancer cases were diagnosed in 2017 and approximately 15 million cancer survivors. These numbers show a marked improvement in survival as progress is being made in the practice of oncology.

According to the National Cancer Institute (2019) cancer remains the second most common cause of death next to heart disease. Approximately 40% of the U.S. population will develop cancer in their lifetime, and one in four patients die from the disease (American Cancer Society, 2014). Due to the complexity of chemotherapy regimens, patients can find it overwhelming to comprehend treatment instructions in addition to the significant details of a new diagnosis.

According to Gumusay et al. (2016), newly diagnosed cancer patients who start receiving chemotherapy have difficulty understanding their diagnosis, prognosis, and the goal of treatment.

Kean, Iverson, and Boylan (2016) add that newly diagnosed cancer patients require adequate information to decrease their anxiety, increase their coping mechanisms, and retain knowledge.

Additionally, information given to patients that meet their personal needs leads to comprehension, as well as an increase in knowledge, compliance, optimal patient outcomes, satisfaction, and safety. Providing effective education to patients receiving chemotherapy can reduce anxiety and promote safety (Blanchard & Cox, 2014).

Background

Chemotherapy is a drug treatment most often used to treat cancer by preventing cell division in malignant cells. However, this treatment can cause negative side effects to the body because the treatment does not distinguish between rapidly dividing malignant cells and normal cells found in the mouth cavity, the gastrointestinal system, bone marrow, and hair follicles

(Sahin & Erguney, 2016). Chemotherapy can also produce side effects such as pain, alopecia, vomiting, dehydration, mucositis, depression, and anxiety. If these side effects are not well controlled, it can lead to patients ceasing the treatment or doctors choosing to reduce dosage or discontinue treatment due to side effects. The prolonged physical symptoms may also lead to psychosocial problems in patients. Therefore, assessment of symptoms related to chemotherapy side effects is essential to healthcare team members. This assessment is important in determining the patient's quality of life, identifying areas of concern, and developing standards of care. Additionally, symptoms should also be assessed when calculating the dose of the drugs to be used so medical providers can control symptoms and cost of care. Studies have also demonstrated the importance of patients being provided education by nurses to help control side effects and be able to assess side effects caused by chemotherapy. According to Sahin & Erguney (2016), education and knowledge are required for patients to participate fully in the decision-making process, better control their diagnosis and symptoms associated with the diagnosis and be able to cope with the experience. For patients with cancer, undergoing chemotherapy can bring emotional distress. According to Cordoba, Riba, and Spiegel (2017), several literature reviews explore the traumatic stress caused by cancer diagnosis and treatment, stating that some patients can develop post-traumatic stress disorder. Berggren, Curtis, & Derakshan (2016) add that anxiety can also have a negative impact on a patient's memory. For these reasons, the American Society of Clinical Oncology recommends that oncologists can help prepare patients for chemotherapy by providing written treatment plans that include a patient's diagnosis, goal of therapy, treatment-plan schedule, potential side effects, and oncologist's contact information to increase a patient's knowledge about their chemotherapy regimen. When a patient understands the potential side effects of their chemotherapy regimen and understands

the treatment strategies, their stress and anxiety will be reduced, which may lead to compliance, better quality of life, and more positive outcomes for the patient (Neuss et al., 2017).

Problem Statement

The American Society of Clinical Oncology (ASCO) recommends oncologists provide patients with written treatment plans to help patients prepare for chemotherapy. The treatment plan covers different topics such as the patient's diagnosis, goal of treatment, treatment schedule, side effects, and provider contact information (Neuss et al, 2017). Having this plan increases the patient's knowledge regarding their chemotherapy. Additionally, pretreatment chemotherapy education is considered a standard of practice and is essential to make sure patients provide truly informed consent for treatment (Neuss et al, 2017). According to the Agency for Healthcare Research and Quality (2015), the teach-back method is an educational technique that can be used by patients, who are the primary learners in the teaching process, wherein patients/primary learners explain health information in their own words. According to Liu, et al. (2018), the teach-back method is a useful strategy for improving patient understanding and recall of health information, especially for patients with low health literacy. The goal for patients with chronic conditions like cancer is to allow them to take control of their health. Lack of knowledge regarding a chemotherapy regimen decreases one's ability to manage their health. Studies have shown patients who are educated with the teach-back method had significantly higher health literacy scores since the teach-back method requires a patient to recall key concepts using his or her own words, demonstrating a lasting understanding. Lastly this process demonstrates whether the patient did not understand the provided during the education session; therefore, the educator will know what needs to be explained again and can do so until the patient correctly understands the concept.

Purpose of the Project

The purpose of this Evidence-Based Project is to determine the effectiveness of using the teach-back method in providing education to patients receiving chemotherapy, and whether this method can increase patient satisfaction with understanding of medication action and side effects. The teach-back method is a way of checking a patient's understanding by asking them to state in their own words the information given to them about their health. This approach confirms whether provider explanations are understood. The teach-back method can improve a patient's understanding and adherence, decrease callbacks and cancelled appointments, and improve patient satisfaction and outcomes.

Clinical Question

In oncology patients receiving chemotherapy (P) does the use of the teach-back method (I) increase understanding of medication action and side effects/follow up, as compared to not using the teach-back method, (C) increase patient satisfaction (O) within 1 month (T)?

SECTION TWO: LITERATURE REVIEW

According to Cordoba, Riba, and Spiegel (2017), when starting chemotherapy, patients suffer substantial emotional distress. Common fears include, but are not limited to, potential side effects, lifestyle changes, loss of dignity, and death. According to Berggren, Curtis, & Derakshan (2016), anxiety can have a negative impact on memory. Patients undergoing chemotherapy treatment receive information about potential adverse effects from different healthcare professionals, including nurses, pharmacists, and oncologists. Patients can learn from all these sources of information; however, they are often still apprehensive about managing their own

adverse effects outside of the treatment facility. According to Huynh & Trovato (2014), providing education to patients regarding their chemotherapy and necessary management of potential side effects, before and during their treatment cycles, reduce anxiety and distress, since anxiety and distress are associated with a lack of knowledge. Education must also include the names of the chemotherapy regimen, including all pre-medications and their indications. Additionally, the lack of knowledge regarding a patient's chemotherapy regimen, pre-medications, and adverse effects could decrease quality of life, and increase morbidity and hospital admissions.

According to Polat, Arpacı, Demir, Erdal, & Yalcin (2014), quality of life is an essential outcome measure when evaluating a patient's health status and a treatment's efficiency. Health-related quality of life can be affected by the individual's diagnosis and clinical interventions. Due to the disease itself, as well as common treatments, cancer causes severe problems that affect the quality of life for patients. Emotional distress, such as anxiety due to cancer diagnosis, can affect quality of life. After diagnosis, patients experience difficulty in adapting and adjusting to daily life. These side effects significantly affect self-care, compliance, severity, progression, and response to the treatment regimen. Patients experience a wide range of emotions after being diagnosed with cancer. Understanding chemotherapy, its uses, as well as their own expectations, can decrease a patient's fears and anxieties. However, patients often report that reliable information regarding chemotherapy is difficult to obtain (Valenti, 2014), despite patient satisfaction being associated with the quality of care rendered and patient outcomes in oncology settings. Patient education should include different teaching methods as patients learn in many ways. It should also be based on a patient's individual preferences and designed to meet the needs of every patient. Developing rapport with the patient and their families so that they feel

comfortable with their caregivers is the initial step in the education process. According to Lambourne et al., 2018, patients need emotional support to ensure maximum information retention, since studies have shown that anxious patients have difficulty retaining information.

According to the Centers of Medicare and Medicaid Services (2017), only 65% of patients receive education about their medications. Patient education is essential to promoting patient safety, optimal dosing, and adherence to the treatment plan. There are several factors that affect a patient's ability to receive and retain information, including a new cancer diagnosis. Patients have the right to receive information about their new medications or their overall health in a way that they can understand so that they can participate in the decision-making process. If patients are not well-informed, it can lead to confusion and decreased satisfaction, as well as possible visits to the emergency room.

The teach-back method is a technique that asks patients to recall health information in their own words, which verifies understanding and confirms communication. This is important because research shows that patients typically retain and understand less than half of the information provided by their health care team (Prochnow, Meiers, & Scheckel, 2018). Researchers have found, however, that individualized patient education increases a patient's understanding of their health needs, improves health literacy, supports self-management, and promotes health outcomes, which are all especially important for patients with chronic illnesses. Yen and Leasure (2019) define health literacy as the capacity to obtain, process, and understand basic health information and services in order to make appropriate health decisions. Insufficient health literacy can cause increased healthcare costs and health disparities, and negative health outcomes. Therefore, it is essential to provide patient education at a fifth-grade learning level so patients can better understand and follow instructions. The teach-back method has been

recommended by the Agency for Healthcare Research and Quality (AHRQ) and the Institute for Healthcare Improvement (IHI) as an effective strategy for taking universal precautions for health literacy. With this method, patients are asked to repeat the instructions they received from their healthcare providers in their own words to assess understanding and determine whether there is a need to reteach or modify the given instructions (Yen & Leasure, 2019).

Search Strategy

This evidence-based study will determine the efficiency of patient education for cancer patients receiving chemotherapy for the first time and whether the teach-back method increases patient satisfaction level. Therefore, journals in oncology were utilized and the author used relevant keywords, including oncology, medication, chemotherapy, education, teach-back method, patient education, quality of life, symptom control, nursing, patient satisfaction, and cancer. The search engines utilized for the search included Pubmed, Cochrane, Medline, EBSCO HOST, and the Cumulative Index to Nursing and Allied Health Literature (CINAHL). There were 263 articles during the initial search. The author limited chosen articles to the last five years, which provided a final number of 20 articles for review. Articles included in the literature review were peer-reviewed, original research articles published within the last five years. Articles excluded were those that were published more than five years ago, articles that utilized a small sample of 20 or below, and articles that showed no relevance to the discussed project. Melynk's Level of Evidence (2015) was utilized to analyze the literature. The level of evidence ranges from 1-6 for the evidence-based project (Appendix A).

Conceptual Framework/Model

The author utilized the Iowa model of research-based practice. The model was originally published in 1994 and the revision was made in 2001. According to White, et al. (2016), the Iowa model was revised due to changes in the healthcare system, as well as feedback from users. The goal of the model is to promote healthcare excellence. This model can be utilized by nurses, nurse practitioners, and other clinicians when making decisions, changing administrative practices, and making quality improvements that impact patient outcomes. The model uses the concept of “triggers”. The identification of these triggers is considered the first step. “Triggers” can be either clinical problem-focused triggers or new knowledge-focused “triggers” (White, Dudley-Brown & Terhaar, 2016). The author of this research identified problem-focused triggers. According to Melynk and Fineout-Overholt (2015), problem-focused triggers have existing data which offer areas for improvement. The purpose of this evidence-based project aligns with the goals of the organization to provide safe, effective, efficient, and compassionate care to all their patients. One particular trigger identified was the result of the organization’s patient satisfaction survey released in October of 2019, which showed that only 61% of patients reported that staff “always” explained medicines before providing them. The organization received a 2-out-of-5-star rating for this particular measure.

An average of fifty to sixty patients in one outpatient infusion clinic are seen per day, and this project was inspired by these high numbers since an effective patient education can improve patient satisfaction and quality of life. Additionally, a comprehensive approach to cancer care that focuses on holistic care can increase marketability for the clinic. This could mean increased profits for the organization. Positive outcomes from this evidence-based project could also attract more patients and make the organization more lucrative.

The second step was stating the question or purpose. The PICOT question is formulated in this step. PICOT's four elements include: Problem/Patient/Population, Intervention/Indicator, Comparison, and Outcome. For this study, the PICOT question is: In oncology patients receiving chemotherapy (P), does the use of the "teach-back" method (I) with understanding of medication action and side effects/follow up as compared to no "teach-back" method (C) increase patient satisfaction (O) within 4 weeks (T)?

The third step was team formation. Collaboration among healthcare team members, such as advanced practice clinicians, physicians, nurses, hospital leaders, and stakeholders, is essential when implementing a change. The advanced practice clinicians and the oncologists were responsible for providing patient education utilizing the teach-back method. The outpatient infusion nurses also provide patient education during their infusion appointments using the teach-back method. The administration supported the project by making sure the tool was being used consistently for all patients receiving chemotherapy for the first time. Follow-up office visits also involved patient teaching. The last step in the Iowa model was integrating and sustaining the change. The author reviewed relevant literature and then appraised and synthesized the findings. Evidence-based practice guidelines were also developed to reflect consistencies in the literature and make recommendations for practice. If the change is appropriate it will be utilized and adopted into the practice setting, then necessary changes in the guidelines will be completed. The author has the permission to use the Iowa Model.

Summary

Providing effective chemotherapy education can be challenging especially in a busy outpatient hospital oncology setting. Factors that affect this include work overload, communication problems, lack of efficient tools, and insufficient knowledge and skills.

Collaboration among healthcare team members can lead to affective chemotherapy education. According to the American Society of Clinical Oncology (2016), Chemotherapy Administration Safety Standards, chemotherapy education should include a minimum of eleven essentials. The eleven essentials are duration of treatment, schedule of administration, drug names and supportive care medications, drug-drug and drug-food interactions, plan for missed doses, serious adverse effects that the patient reports, adverse effects, recommendations for symptom management, procedures for safe storage, handling and disposal of medications, and handling body secretions and waste in the home.

SECTION THREE: METHODOLOGY

Design

This project was an evidence-based project that used a quasi-experimental approach. The Iowa Model for Evidence-Based Practice was used as the conceptual framework. Participants of this project were exclusive to patients who have Medicare/Medicaid Insurance. Patients on chemotherapy were given education utilizing the teach-back method as a form of intervention. Four weeks after the intervention, follow-up patient-satisfaction surveys were completed and the results were compared to the results of previous patient-satisfaction surveys, which did not utilize the teach back method.

Measurable Outcomes

The purpose of this project is to determine the effectiveness of using the teach-back method for providing education to patients receiving chemotherapy and whether this method can increase patient satisfaction with understanding of medication action and side effects.” In the state of Virginia, 64% of patients say that medical providers always explain medications prior to

prescribing them, and only 66% of patients' nationwide say they were taught about their medications. . In October of 2019, the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) Survey showed 61% of patients who visited the project clinic reported that staff "always explained about medicines before giving it to them, which was administered prior to project implementation. A Press Ganey Patient Satisfaction Survey was given to patients four weeks after the intervention as a follow-up to the previous patient satisfaction survey provided by HCAHPS. The following outcomes were measured: information given by the care provider about a patient's medication, which served as the trigger of the project; friendliness of the care provider; explanations the care provider about the patient's problem or condition; concern the care provider showed for the patient's questions or worries; care provider's efforts to include the patient's decisions about their treatment; instructions given by the care provider about follow-up care; degree to which the care provider communicated with the patients using words that the patient could understand; amount of time the care provider spent with the patient; confidence of the care provider; and the likelihood of recommending the care provider to other patients. The results were analyzed after all the patients returned the survey either by mail, email, or in person. The project sought to determine if there would be an increased improvement on satisfaction scores, specifically on the outcome measure on the information given by the care provider about the patient's medication.

Setting

This evidence-based project was implemented in all outpatient infusion centers in one of the five largest Catholic hospitals in the Mid-Atlantic Region of the East Coast. According to the Virginia Cancer Registry and the Office of Health Statistics (2018), the Western part of Hampton Roads has the highest morbidity and mortality rates. The partner organization responded to the

increasing number of cancer patients by constructing two cancer institutes and a total of five infusion centers in the area. The goal was to improve the overall health of the community. This project aligned with vision of the healthcare system, which is to elevate the quality of care and increase access to cancer specialists and advanced treatments. The organization uses the total quality management approach to improve quality of care, decrease expenditures, and improve patient satisfaction. Total Quality Management (TQM) allows employees to get involved in all aspects leading to quality outcomes through continuous improvement (Khan, Malik, & Janjua, 2018). Additionally, the TQM approach can have a positive impact on employees by promoting confidence and positivity toward their jobs. Employees are encouraged to verbalize their viewpoints and ideas when developing the goals, strategies, and mission of the organization. Affective commitment by the employees to the organization impacts employee outcome.

Subjects

The subjects for this project were patients who have Medicare/Medicaid insurance and are undergoing chemotherapy for the first time. The subjects were adults aged 18-85. Exclusion criteria included patients who have commercial insurance, patients who already received chemotherapy, and patients taking hormonal treatments. There were no inclusions based on gender, ethnicity, or race. The target for the sample size was at least 35 patients.

Ethical Considerations

This author completed the required CITI Training. Before collecting data, the author had prior approval from the IRB. The author maintained the quality and integrity of the project by not altering any data collected. Confidentiality and anonymity of the respondents were respected.

Additionally, thirty-five subjects participated in the project voluntarily and the project was independent, impartial, and completed over a 4-week timeframe.

Data Collection

Chemotherapy education utilizing the teach-back method was provided to participants who have Medicare/Medicaid insurance. Four weeks after the intervention, follow-up patient satisfaction surveys were completed, and the results were compared to the results of the previous patient satisfaction survey using the Press Ganey Survey. Prior to participant enrollment, the chemotherapy education tool and surveys were reviewed and approved by the Institutional Review Board. The author included patients who were 18 years and older, had Medicare and Medicaid insurance, and were on oral or IV chemotherapy. Chemotherapy treatments may include traditional cytotoxic agents, targeted therapies, administered IV or by mouth, or by combination of routes. Patients who already received chemotherapy or those taking hormonal treatments were excluded from the study. Patients were offered the opportunity to participate after reviewing the treatment regimen with the medical oncologist. The Press Ganey Patient Satisfaction Survey was used to collect data, which was either mailed or emailed to the patients. The survey questions aimed to gain insight regarding their experience and the care they received. Selections ranged numerically from “very poor” to “very good,” and the surveys concluded with a comment section where patients can include their additional thoughts, questions, or concerns.

Intervention

This author identified a problem-focused trigger. According to Melynk and Fineout-Overholt (2015) problem-focused triggers have existing data which offers areas for improvement. The purpose of this evidence-based project aligned with the goals of the

organization to provide safe, effective, efficient, and compassionate care to all their patients. Based on the organization's patient satisfaction survey released in October of 2019, which showed only 61% of patients reported that staff "always" explained medicines before giving it to them, a trigger was identified. The organization also received a 2-out-of-5-star rating for this measure.

Patients have the right to receive information about their medications or their health in a way they can understand for them to participate in the decision-making process. If patients are not well informed, it can lead to confusion, decreased satisfaction, or possible visits to the emergency room (Prochnow, Meiers, & Scheckel, 2018). The intervention used in this evidence-based project is the utilization of the teach-back method when providing patient education. The teach-back method is a technique that asks patients to recall health information in their own words to verify understanding and confirm communication. Research shows that patients typically retain and understand less than half of the information provided by their healthcare team, demonstrating project relevance. Additionally, for patients with chronic illnesses, researchers have found that individualized patient education can increase patients' understanding of their health needs and improve health literacy. Furthermore, this approach also supports self-management and promotes health outcomes.

Timeline

February 2020	Scholarly Project Proposal Accepted. PowerPoint started for proposal defense.
March 1, 2020	PowerPoint accepted
March 4, 2020	Project proposal completed
March 10, 2020	Liberty University IRB completed and pending certification
March 14, 2020	Received Notice of Receipt of Initial Submission

March 27, 2020	Liberty University IRB approval received. Organization IRB approval received.
March 28, 2020	Intervention started followed by data collection
May 11, 2020	Data collection completed and Data Analysis Started

Data Analysis

The sample size for the Press Ganey Survey was 35 patients. Ten questions were asked on the survey: (a) The information given by the care provider about the patient's medication which is the trigger of the project? (b) Friendliness of the care provider? (c) Explanations the care provider about the patient's problem or condition? (d) Concern the care provider showed for the patient's questions or worries? (e) Care provider's efforts to include the patient's decisions about their treatment. (f) Instructions given by the care provider about follow up care (g) Degree to which the care provider communicated with the patients using words that the patient could understand? (h) Amount of time the care provider spent with the patient? (i) Confidence of the care provider? (j) Likelihood of recommending the care provider to other patients. Survey responses were analyzed using Descriptive Statistics in SPSS software.

SECTION FOUR: RESULTS

Survey responses demonstrated an improvement in scores for information given by care providers about chemotherapy medications prior to starting the regimen. Of the 35 subjects included in this project, 24 of the subjects (or 68.6%) responded "very good" to the question, "Information the care provider gave you about medications." Nine subjects (or 25.7%) responded "good," one subject (or 2.9%) responded "fair," and one subject (or 2.9%) did not answer the question. When comparing these scores to the organization's patient satisfaction surveys released in October of 2019, which showed only 61% of patients reported that staff "always" explained

about medicines before giving it to them, the intervention used in this evidence-based project was successful. Scores are outlined in Table 1.

Table 1: Information given by the care provider about the patients' medication

	Frequency	Percent	Cumulative Percent
Valid Fair	1	2.9	2.9
Good	9	25.7	29.4
Very Good	24	68.6	100.0
Total	34	97.1	
Missing System	1	2.9	
Total	35	100.0	
Pre intervention		61%	

In examining the surveys, the mean of each question ranged from 4.6-4.8, meaning patients answered "very good" most of the time, which was the highest possible answer for each question. Based on the survey, patients were well satisfied with the care they received from their providers. The subjective comments on the survey were all positive as well.

Measurable Outcome. There were 10 questions asked on the survey: (a) The information given by the care provider about the patient's medication? The results showed a mean score of 4.6. Among the 35 respondents, 24 responded "very good", nine subjects responded "good," one responded "fair," and one respondent did not answer the question. (b) Friendliness of the care provider? The results showed a mean score of 4.8. Among the 35 respondents, 29 responded "very good" and six subjects responded "good." (c) Explanations the care provider gave about the patient's problem or condition? The results showed a mean score of 4.8. Among the 35 respondents, 27 responded "very good" and 8 subjects responded "good." (d) Concern the care provider showed for the patient's questions or worries? The results showed a

mean score of 4.6. Among the 35 respondents, 21 responded “very good” and 14 subjects responded “good.” (e) Care provider’s efforts to include the patient’s decisions about their treatment. The results showed a mean score of 4.7. Among the 35 respondents, 34 responded “very good” and 1 subject responded “good.” (f) Instructions given by the care provider about follow-up care. The results showed a mean score of 4.8. Among the 35 respondents, 26 responded “very good,” eight subjects responded “good,” and one did not answer the question. (g) Degree to which the care provider communicated with the patients using words that the patient could understand? The results showed a mean score of 4.8. Among the 35 respondents, 27 responded “very good,” seven subjects responded “good,” and one did not answer the question. (h) Amount of time the care provider spent with the patient? The results showed a mean score of 4.7. Among the 35 respondents, 25 responded “very good,” nine subjects responded “good,” and one did not answer the question. (i) Confidence of the care provider? The results showed a mean score of 4.8. Among the 35 respondents, 27 responded “very good,” seven subjects responded “good,” and one did not answer the question. (j) Likelihood of recommending the care provider to other patients. The results showed a mean score of 4.8. Among the 35 respondents, 27 responded “very good” and 8 subjects responded “good”.

Friendliness of the care provider

		Frequency	Percent	Cumulative Percent
Valid	Good	6	17.1	17.1
	Very Good	29	82.9	100.0
	Total	35	100.0	

Explanations the care provider gave you about your problem or condition

		Frequency	Percent	Cumulative Percent
Valid	Good	8	22.9	22.9
	Very Good	27	77.1	100.0
	Total	35	100.0	

Concern the care provider showed for your questions or worries

	Frequency	Percent	Cumulative Percent
Valid Good	14	40.0	40.0
Very Good	21	60.0	100.0
Total	35	100.0	

Care provider's efforts to include your decisions about your treatment

	Frequency	Percent	Cumulative Percent
Valid Good	10	28.6	29.4
Very Good	24	68.6	100.0
Total	34	97.1	
Missing System	1	2.9	
Total	35	100.0	

Instructions the care provider gave you about follow up care

	Frequency	Percent	Cumulative Percent
Valid Good	8	22.9	23.5
Very Good	26	74.3	100.0
Total	34	97.1	
Missing System	1	2.9	
Total	35	100.0	

Degree to which care provider talked with you using words you could understand

	Frequency	Percent	Cumulative Percent
Valid Good	7	20.0	20.6
Very Good	27	77.1	100.0
Total	34	97.1	
Missing System	1	2.9	
Total	35	100.0	

Amount of time the care provider spent with you

	Frequency	Percent	Cumulative Percent
Valid Good	9	25.7	26.5
Very Good	25	71.4	100.0
Total	34	97.1	
Missing System	1	2.9	
Total	35	100.0	

Your confidence in this care provider

	Frequency	Percent	Cumulative Percent
Valid Good	7	20.0	20.6
Very Good	27	77.1	100.0
Total	34	97.1	
Missing System	1	2.9	
Total	35	100.0	

Likelihood of recommending this care provider to others

	Frequency	Percent	Cumulative Percent
Valid Good	8	22.9	22.9
Very Good	27	77.1	100.0
Total	35	100.0	

SECTION FIVE: DISCUSSION

Implication for Practice

This project has clinical significance and relevance for how to educate chemotherapy patients. As demonstrated by the research, the teach-back method, written at a fifth-grade learning level, has a significant impact on patient education. Patient education is essential to promote patient safety, optimal dosing, and adherence to the treatment plan. For patients with chronic illnesses, researchers have found that individualized patient education had increased patients' understanding of their health needs and improved health literacy, while also supporting self-management and promoting health outcomes. Yen and Leasure (2019) define health literacy as the capacity to obtain, process, and understand basic health information and services in order to make appropriate health decisions. Insufficient health literacy can lead to increased health system cost, health disparities, and negative health outcomes. Therefore, it is essential to give patient education in the fifth-grade level where patients understand and follow instructions to ensure effective communication. The teach-back method has been recommended by the Agency

for Healthcare Research and Quality (AHRQ) and the Institute for Healthcare Improvement (IHI) as an effective strategy for taking universal precautions for health literacy.

Limitations of this project are time constraints and sample size. Patients must schedule an appointment for their chemotherapy education class prior to receiving their chemotherapy. Providing effective chemotherapy education can be challenging, especially in a busy outpatient hospital oncology setting. Factors that can affect this include work-overload, communication problems, lack of efficient tools, and insufficient knowledge and skills. Additionally, some patients have transportation issues and must ensure their insurance is aware of their appointments one week prior to their scheduled appointment. Furthermore, some patients take the taxicab, and this poses an extra cost to them. The other limitation was sample size. Only 35 subjects were included in this project. Some patients reported that due to the COVID-19 pandemic, they refused to check their mailbox. Other patients reported that they did not have access to a phone or computer, so they did not have an email account.

Sustainability

The department for Advanced Practice Clinicians and Physicians is committed to continuing the teach-back method to improve understanding of the health information provided by the healthcare team. Registered Nurses at the Outpatient Infusion Clinic should also be encouraged to use the teach-back method when giving patient education to all the patients coming in for chemotherapy. Additionally, teach-back method should also be included in the new employee orientation packet and annual competencies for Advanced Practice Clinicians, Physicians, and Registered Nurses.

Dissemination Plan

The dissemination of this evidence-based project took place on all the outpatient infusion centers in one of the five largest Catholic hospitals in the Mid-Atlantic Region of the East Coast. According to the Virginia Cancer Registry and the Office of Health Statistics (2018) the Western part of Hampton Roads has the highest morbidity and mortality rates. This organization responded to the increasing number of cancer patients by constructing two cancer institutes and total of five infusion centers in the area. The goal is to improve the overall health of the community. This project aligns with vision of the healthcare system which is to elevate the quality of care and increase access to cancer specialists and advanced treatments. The intervention used in this evidence-based project is the utilization of the teach-back method when providing patient education. The teach-back method is a technique that asks patients to recall health information in their own words to verify understanding and confirm communication. Research shows that patients retain and understand less than half of the information provided by their health care team. Insufficient health literacy can cause increased health system cost, health disparities, and negative health outcomes. Therefore, it is essential to give patient education in the fifth-grade level where patients understand and follow instructions to ensure effective communication. Patients receiving chemotherapy for the first time were given follow up appointment schedule to participate in the teach-back education class provided by the advanced practice clinician or the physician. With this method patients are asked to repeat the instructions received from their health care providers in their own words to assess understanding or if there is a need to reteach or modify if comprehension is not achieved (Yen & Leasure, 2019).

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Appendix

- A. Strengths of Evidence Table (Landscape orientation; include in Proposal and Final Project Manuscript)
- B. CITI Certificate (Landscape orientation; include in Proposal and Final Project Manuscript)
- C. Letter of support from the organization (Proposal and Final Project Manuscript)
- D. Permission letters to use tools and models (Proposal and Final Project Manuscript)
- E. Liberty University IRB Approval
- F. Press Ganey Satisfaction Survey
- G. Teach-Back Method Tool
- H. Organization's IRB Approval

Appendix A

Evidence Table**Name:** Gladys Cajucom-Apuli

Clinical Question: In oncology patients receiving chemotherapy (P) does the use of the teach-back method (I) with understanding of medication action and side effects/follow up as compared to no “teach-back” method (C) increase patient satisfaction (O) within 12 weeks (T)?

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteristics of the Sample: Demographics , etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
Apor, E., Anderson, K. F., Barth, P., Youssef, R., Fenton, M. A., Sikov, W. M., Thomas, A., Schumacher, A. (2018). Prechemotherapy education: Reducing patient anxiety through	To evaluate the effect of a nurse-led chemotherapy teaching session on patients' knowledge, anxiety, and preparedness for cancer-	196 patients completed the survey prior to their teaching appointment	A non-experimental, descriptive survey	A nurse-led chemotherapy teaching session improves patients' perceived knowledge of treatment.	Level VI: descriptive design	The survey instrument had not been previously validated	Yes. The result was consistent that pre-chemotherapy education improves patients' perceived knowledge of treatment.

nurse-led teaching sessions. <i>Clinical Journal of Oncology Nursing</i> , 22(1), 76-82. doi: 10.1188/18.CJON.76-82.	directed therapy.						
Ballard, D., & Hill, J. M. (2006). The nurse's role in health literacy of patients with cancer. <i>Clinical Journal of Oncology Nursing</i> , 20(3), 232-234. doi: 10.1188/16.cjon.232-234.	To determine the role of nurses in health literacy among patients with cancer.	More than 19,000 participants, grouped into four categories depending on level of literacy	A non-experimental, descriptive survey	The results showed that by using the universal precautions and teach-back method, healthcare providers can effectively educate their patients and provide information that is critical to their health and wellness.	Level VI: descriptive design	Health literacy is difficult to measure in clinical practice	Yes. The findings showed that by using the universal precautions and the teach-back method, healthcare providers can effectively educate their patients and provide information that is critical to their health and wellness.
Centrella-Nigro, A. M., & Alexander, C. (2017). Using the teach-back	To determine the effectiveness of the teach-	24 nurses coming from a 361-bed community	Quasi-experimental study.	There is a significant improvement in knowledge results.	Level III: Quasi-experimental study.	Small number of participants	Yes. There was a significant improvement in knowledge

method in patient education to improve patient satisfaction. The <i>Journal of Continuing Education in Nursing</i> , 48(1), 47-52. doi: 10.3928/00220124-20170110-10.	back method in improving patient education.	Magnet-designated hospital were included in this study.		Qualitative analysis of nurse's comments demonstrated strong support for teach-back.			results. Qualitative analysis of nurses' comments demonstrated strong support for teach-back, although the HCAHPS scores were not significantly improved. Implementing the fundamentals of universal precautions and teach-back method are effective deterrents to the negative outcomes associated with low health literacy.
Engelke, Z. (2018). Patient education: preparing the patient for chemotherapy. CINAHL	To provide patient education in preparation for patients	53 patients at a comprehensive cancer center and 198 patients with	Non-experimental, descriptive.	Standardization of initial chemotherapy education can improve patient understanding and	Level VI: Non-experimental, descriptive	Small sample size	Yes. Patients understand the overall purpose of chemotherapy. Patients cope with the psychosocial

Information Systems, 1-9.	receiving chemotherapy.	cancer in Australia.		the satisfaction of both patients and staff.			and emotional aspects of receiving chemotherapy.
Holman, C. K., Weed, L. D., & Kelley, S. P. (2019). Improving provider use of the teach-back method. <i>Journal for Nurses in Professional Development</i> , 52-53. doi: 10.1097/NND.000000000521.	To improve patient health literacy by teaching acute care nurses the teach-back method.	300-bed inpatient facility was used as the setting of this study.	Non-experimental, descriptive.	The results showed teaching the teach-back method to providers could be effective in improving its use.	Level VI: Non-experimental, descriptive	Small sample size and low post intervention participation	Yes. Patient education is a key element in healthcare and the teach-back method can be used to confirm understanding and enhance communication.
Huynh, T. K. & Trovato, J. A. (2014). Assessment of patients knowledge and management of chemotherapy related adverse effects. <i>Journal of Hematology Oncology</i>	To evaluate the knowledge of patients regarding the expected adverse effects of chemotherapy and how to manage them.	67 surveys were returned for analysis from a large teaching hospital and a smaller community hospital.	Non-experimental, descriptive survey	91% of the patients who responded had a good understanding of the chemotherapy regimen they were receiving. Similar results were seen from patients regarding their understanding of	Level VI: descriptive design	Conducted within the same university-based health system	Yes. Does provide some good foundational information even though the level is a 6.

<p><i>Pharmacy, 4(4), 122-127.</i></p>	<p>To assess patient satisfaction regarding the education provided and their preferred method of education.</p>			<p>pre-medications. The patients who received chemotherapy from the community hospital were more confident in knowing which side effects were expected at home. They were also able to list chemotherapy-related side effects in a greater extent compared to the patients seen at the larger infusion center.</p> <p>Survey questions, which evaluated patient satisfaction with chemotherapy education provided, showed pharmacists had a minimal role in giving patient education.</p> <p>Additionally, patients prefer</p>			
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				face-to-face meeting as a method of patient education.			
Kaupp, K., Scott, S., Minard, L. V., & Lambourne, T. (2019). Optimizing patient education of oncology medications: A quantitative analysis of the patient perspective. <i>Journal of Oncology Pharmacy Practice</i> , 25(6), 1445-1455. doi: 10.1177/1078155219843675.	To explore patient perspective regarding oncology medication education.	142 responses were included in the study.	Non-experimental, descriptive	In general patients were satisfied with the oncology medication education provided. Patients with a higher level of formal education were more likely to schedule an opportunity for education or receive follow up	Level VI: Non-experimental, descriptive	Small sample	Yes. Findings can be used to optimize the limited time healthcare providers spend to have meaningful and effective oncology medication education and improve patient-centered care.
Kean, C. C., Iverson, L., & Boylan, A. (2016). Evaluation of a chemotherapy and medication education process	To determine the efficacy and impact of an education process to meet the needs of patients. To	41 patients were surveyed in this study from a community-based outpatient	Non-experimental, descriptive survey	Majority of the respondents reported receiving chemotherapy and medication education by more than one method	Level VI: descriptive design	Total number of patients surveyed was small.	Yes. Although there were only 41 patients who completed the surveys, their responses were consistent. The

for patients starting cancer treatment. <i>Clinical Journal of Oncology Nursing</i> , 20(4), 364-366. doi: 10.1188/16.CJON.364-366.	decrease anxiety, increase coping mechanisms, and promote safety by providing adequate and appropriate education experiences.	clinical oncology setting.		and they stated that this is their preference. The medication education was adequate and met their needs.			medication education was adequate and met their needs.
Keener, K. A., & Winokur, E. J. (2018). Digitally recorded education: Effects on anxiety and knowledge recall in patients receiving first-time chemotherapy. <i>Clinical Journal of Oncology Nursing</i> , 22(4), 444-449. doi: 10.1188/18.CJON.444-449.	To determine the effectiveness of standardized, digitally recorded education to increase knowledge recall and decrease anxiety.	92 individuals participated in the study.	Non-experimental, descriptive survey	The results demonstrated decreased anxiety levels and increased knowledge recall for the traditional education and digitally recorded education groups.	Level VI: descriptive design	This study was conducted in Southern California Community Hospital Outpatient Infusion clinic with a small sample.	Yes. This study demonstrated promising results to decrease patient anxiety levels while increasing patient knowledge of critical and beneficial treatment-related information.
Gumusay, O., Cetin, B., Benekli, M., Gurcan, G., Ilhan, M. N.,	To evaluate the presence of anxiety and depression	216 patients who received chemotherapy for the first	Non-experimental, descriptive survey	Results showed that there is a need for education at the time of	Level VI: descriptive design	Small sample	Yes. The responses were consistent and can, therefore, be

Bostankolu, B., Ozet, A., Uner, A., Coskun, U., & Buyukberber, S. (2015). Factors influencing chemotherapy goal perception in newly diagnosed cancer patients. <i>Journal on Cancer Education</i> , 2016(13), 308-313. doi: 10.1007/s13187-015-0827-y.	among cancer patients.	time participated in the treatment.		diagnosis before treatment decisions are made. To meet the educational needs of the patients, training sessions, information, and therapeutic education must be provided.			used in future studies.
Mathew, M. R., Mohan, L., Paul, M., Maideen, M., Jose, L., & Ommanakuttan, M. (2017). Evaluating the effectiveness of patient counseling, teach back versus standard method. <i>International Journal of Basic and Clinical Pharmacology</i> , 7(1), 87-92. doi: 10.18203/2319-	To assess memory retention of new prescription medication by comparing teach-back method and standard counseling method.	A total of 150 patients from a pulmonary medicine department of a 500-bed multispecialty tertiary care referral hospital were included in the study.	Prospective experimental study	The results showed the teach-back method significantly increased scores compared to the standard method. The teach-back method showed a significant improvement in patient knowledge and memory retention.	Level III: Prospective experimental study	Small sample	Yes. The teach-back method showed a significant improvement in patient knowledge and memory retention.

2003.ijbcp20175680.							
<p>Polat, U., Arpaci, A., Demir, S., Erdal, S., & Yalcin, S. (2014). Evaluation of quality of life and anxiety and depression levels in patients receiving chemotherapy for colorectal cancer: Impact of patient education before treatment initiation. <i>Journal of Gastrointestinal Oncology</i>, 5(4), 270-275. doi: 10.3978/j.issn.2078-6891.2014.034.</p>	<p>To evaluate the quality of life and anxiety and depression levels in patients receiving chemotherapy for colorectal cancer.</p>	<p>This study was conducted in 50 patients with colon or rectal cancer.</p>	<p>Non-experimental, descriptive survey</p>	<p>This study showed that with proper patient management, quality of life scores increase and anxiety and depression levels improve during the course of treatment.</p>	<p>Level VI: descriptive design</p>	<p>Small sample</p>	<p>Yes. The results showed consistent results. Patient education before treatment initiation is important for favorable outcomes.</p>
<p>Porz, D., & Johnston, M. P. (2014). Implementation of an evidence-based education practice</p>	<p>To find ways to effectively educate patients about diagnosis, treatment, and</p>	<p>The sample size was set for 10 newly diagnosed cancer patients.</p>	<p>Non-experimental, descriptive survey</p>	<p>The standardization of patient education provided a foundation from which new models</p>	<p>Level VI: descriptive design</p>	<p>Small sample</p>	<p>Yes. From the small pilot, there was an increase in patient and nurse satisfaction.</p>

change for patients with cancer. <i>Clinical Journal of Oncology Nursing</i> , 18(5), 36-40. doi: 10.1188/14.CJON.S2.36-40.	symptom management.			for oncology nurse-led patient education.			
Prescott, L., Dickens, A. S., Guerra, S. L., Tanha, J. M., Phillips, D. G., & Taylor, J. S. (2015). Fighting cancer together: Development and implementation of shared medical appointments to standardize and improve chemotherapy education. <i>Gynecologic Oncology</i> , 140(2016), 114-119. doi: 10.1016/j.ygyno.2015.11.006.	To develop and implement a shared medical appointment for gynecologic cancer patients initiating chemotherapy.	144 patients participated in 51 smart visits.	Non-experimental, descriptive survey	The results showed patients were highly satisfied with the group visit and would recommend shared medical appointments to other patients.	Level VI: descriptive design	Small sample	Yes. The model used in this study provided patient education within a framework of social support that empowers patients.

Prochnow, J. A., Meiers, S. J., & Scheckel, M. M. (2018). Improving patient and caregiver new medication education using an innovative teach-back toolkit. <i>Journal for Nurse Care Quality</i> , 34(2), 101-106. doi: 10.1097/NCQ.0000000000000342.	To improve patient outcomes using a tailored, evidence-based intervention to develop, encourage, and support registered nurse's abilities to educate and monitor patients and caregiver knowledge of new medications.	25 RNs were observed in patient/caregiver education; 74 patients, and 33 caregivers were assessed.	Non-experimental, descriptive survey	By utilizing the teach-back method, both patients and caregivers recalled the purpose and side effects of the medications. HCAHPS scores increased from 6% to 10%.	Level VI: descriptive design	There was no control group to compare the effectiveness of the teach-back method.	Yes. The teach-back method is effective and strengthened safe nursing practice and enhanced quality in new medication education.
Sahin, Z. A., & Erguney, S. Effect of symptom management education receiving patients of chemotherapy. <i>Journal of Cancer Education</i> , 2016(31), 101-107.	To examine the effect of planned education given to patients receiving chemotherapy for symptom control.	140 patients participated in the study.	Quasi Experimental	Chemotherapy patients given education had a decrease in the frequency of psychological symptoms such as distress/anxiety, pessimism/unhappiness. Unusual	Level III: Quasi Experimental	Randomized sampling method was not employed	Yes. The result showed systemic assessment of chemotherapy-induced symptoms and continuity in organization of education activities will

doi: 10.1007/s13187-015-0801-8.				fatigue was decreased in frequency, severity, and degree of discomfort of symptoms.			increase the quality of life by symptom control.
Valenti, R. B. (2014). Chemotherapy education for patients with cancer. <i>Clinical Journal of Oncology Nursing</i> , 18(6), 637-640. doi: 10.1188/14.CJON.637-640.	To determine the best way to provide chemotherapy education to patients.	16 articles were identified that employed various teaching methods.	Non-experimental, descriptive.	Patients did not show a difference in retention of information when different forms of education were compared. Patients seem to prefer to receive written information that can be reviewed with them by the healthcare provider.	Level VI: Non-experimental, descriptive	Limited number of available articles	Yes. Patients want to learn as much as possible about their cancer, its treatment, and how to manage side effects.
Yen, P. H., & Leasure, R. (2019). Use and effectiveness of the teach-back method in patient education and health	To determine the effectiveness of using teach-back method to understand	28 full text articles were reviewed.	Non-experimental, descriptive.	The results of the study showed positive effects of the teach-back method on patient satisfaction, post discharge	Level VI: Non-experimental, descriptive	Limited number of articles reviewed	Yes. The findings of this study support the use of the teach-back method as effective in

outcomes. <i>Federal Practitioner</i> , 284-289.	health education. To determine the impact of teach-back method on patient's disease self-management and health outcomes.			readmission, disease knowledge and disease management improvements, and health-related quality of life.			reinforcing patient education.
Yong, B. L., li, Y. F., & Chen, Y. L. (2018). Effectiveness of the teach-back method for improving the health literacy of senior citizens in nursing homes. <i>Japan Academy of Nursing Science</i> , 2018(15), 195-202. doi: 10.1111/jjns.12192.	To evaluate the effectiveness of the teach-back method as an educational strategy for improving health literacy in adults.	27 nursing homes were included in this study. A total of 127 patients in the intervention group and 136 patients in the control group met the inclusion criteria.	Randomized Controlled Trial	The results showed the teach-back method is an effective approach to improve health literacy levels among senior citizens.	Level II: Evidence obtained from at least one well-designed randomized controlled trial	Self-reported literacy is susceptible to patient recall bias	Yes. This study showed a significant increase in health literacy score, demonstrating that the teach-back method as an educational strategy is effective in improving health literacy levels among senior citizens.

Appendix B

CITI Certificate

Completion Date 31-Aug-2019

Expiration Date 30-Aug-2022

Record ID 32924170

This is to certify that:

GLADYS APULI

Has completed the following CITI Program course:

Animal Care and Use (Curriculum Group)**Students Working with Animals** (Course Learner Group)**1 - Basic Course** (Stage)

Under requirements set by:

Liberty UniversityVerify at www.citiprogram.org/verify/?wd30636f8-9fa7-42e9-a705-29ee359cc285-32924170

Completion Date 29-Aug-2019

Expiration Date 28-Aug-2022

Record ID 32924166

This is to certify that:

GLADYS APULI

Has completed the following CITI Program course:

Biomedical Research - Basic/Refresher	(Curriculum Group)
Biomedical & Health Science Researchers	(Course Learner Group)
1 - Basic Course	(Stage)

Under requirements set by:

Liberty University

Verify at www.citiprogram.org/verify/?wa11a0301-8741-4569-bf0a-7c1a2570222c-32924166

Completion Date 30-Aug-2019

Expiration Date 29-Aug-2022

Record ID 32924171

This is to certify that:

GLADYS APULI

Has completed the following CITI Program course:

LUCOM Biosafety Training (Curriculum Group)

Initial Biosafety Training (Course LearnerGroup)

1 - Biosafety/Biosecurity (Stage)

Under requirements set by:

Liberty University

Verify at www.citiprogram.org/verify/?w1b2acd01-424d-45a1-8339-a174935a3007-32924171

Completion Date 29-Aug-2019

Expiration Date 28-Aug-2023

Record ID 32924168

This is to certify that:

GLADYS APULI

Has completed the following CITI Program course:

CITI Conflicts of Interest (Curriculum Group)

Conflicts of Interest (Course Learner Group)

1 - Stage 1 (Stage)

Under requirements set by:

Liberty University

Verify at www.citiprogram.org/verify/?w35050d66-49c9-4169-9257-9b3b510e4607-32924168

Completion Date 29-Aug-2019

Expiration Date 28-Aug-2023

Record ID 32924172

This is to certify that:

GLADYS APULI

Has completed the following CITI Program course:

CITI Essentials of Research Administration (Curriculum Group)

Essentials of Research Administration (Course Learner Group)

1 Basic Course (Stage)

Under requirements set by:

Liberty University

Verify at www.citiprogram.org/verify/?w35050d66-49c9-4169-9257-9b3b510e4607-32924168

Completion Date 29-Aug-2019

Expiration Date 28-Aug-2023

Record ID 32924169

This is to certify that:

GLADYS APULI

Has completed the following CITI Program course:

CITI Export Compliance (Curriculum Group)

Export Compliance (Course Learner Group)

1 - Stage 1 (Stage)

Under requirements set by:

Liberty University

Verify at www.citiprogram.org/verify/?w35050d66-49c9-4169-9257-9b3b510e4607-32924168

Completion Date 29-Aug-2019

Expiration Date 28-Aug-2023

Record ID 32924167

This is to certify that:

GLADYS APULI

Has completed the following CITI Program course:

Humanities Responsible Conduct of Research

(Curriculum Group)

Humanities Responsible Conduct of Research

(Course Learner Group)

1 – RCR

(Stage)

Under requirements set by:

Liberty University

Verify at www.citiprogram.org/verify/?w35050d66-49c9-4169-9257-9b3b510e4607-32924168

Appendix C

Letter of Support from the Organization

DNP Scholarly Project

LETTER OF SUPPORT

Liberty University, Inc.
1971 University Blvd.
Lynchburg, VA 24593

RE: IRB Letter of Support
Gladys Apuli, FNP-C

Dear Institutional Review Board Chair and Members:

I am writing this letter of support,
It is our intention to support Gladys Apuli, FNP-C for her DNP scholarly project (described below).

Scholarly Project Overview

1. Project Summary:

This project is an evidence-based project and will utilize the Iowa Model for Evidence-Based Practice as its Conceptual Framework. Participants of this project will be exclusive to patients who have Medicare Insurance. Patients receiving chemotherapy will be given education utilizing the “teach-back” method as a form of intervention. Four weeks after the intervention, follow up patient satisfaction survey will be completed and the results will be compared to the results of the previous patient satisfaction survey.

2. Objectives:

- i.** Utilize evidence-based knowledge and advanced practice clinician skills to assess the medical oncology department. Promote the use of the evidence-based practice in the medical oncology department and ensure its translation is implemented within 3 months after completing the project.
- ii.** Collaborate with other health care team members to understand, clarify, and support the use of the teach-back method by setting up monthly meetings while completing the project.
- iii.** Initiate the interventions
- iv.** Start data collection
- v.** The objective will be that once the interventions have been initiated, patient satisfaction result will increase to 65%.

3. Background & Rationale:

Teach-back method is a technique that asks patients to recall health information in their own words to verify understanding and confirm communication. It has been recommended by the Agency for Healthcare Research and Quality (AHRQ) and the Institute for Healthcare Improvement (IHI) as an effective strategy for taking universal precautions for health literacy.

Sincerely,

[Redacted Signature]

President and Medical Director Delta Oncology Associates
Medical Director Bon Secours Outpatient Infusion Centers
Bon Secours Maryview Medical Oncology
355 Crawford Street Suite 300
Portsmouth, VA 23704

Appendix D

Permission letters to use tools and models

On Friday, November 29, 2019, 10:09 AM, Kimberly Jordan - University of Iowa Hospitals and Clinics <noreply@qualtrics-survey.com> wrote:

You have permission, as requested today, to review and/or reproduce *The Iowa Model Revised: Evidence-Based Practice to Promote Excellence in Health Care*. Click the link below to open.

[The Iowa Model Revised: Evidence-Based Practice to Promote Excellence in Health Care](#)

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Citation: Iowa Model Collaborative. (2017). Iowa model of evidence-based practice: Revisions and validation. *Worldviews on Evidence-Based Nursing*, 14(3), 175-182. doi:10.1111/wvn.12223

In written material, please add the following statement:

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You have permission, as requested today, to review and/or use the Implementation Strategies for EBP (Evidence-Based Practice Implementation Guide ©). Click the link below to open.

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Citation: Cullen, L., & Adams, S. L. (2012). Planning for implementation of evidence-based practice. *Journal of Nursing Administration*, 42(4), 222-230. doi:10.1097/NNA.0b013e31824ccd0a

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On Friday, November 29, 2019, 10:09 AM, Kimberly Jordan – University of Iowa Hospitals and Clinics <noreply@qualtrics-survey.com> wrote:

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Citation: Cullen, L., Hanrahan, K., Farrington, M., DeBerg, J., Tucker, S., & Kleiber, C. (2018). *Evidence-based practice in action: Comprehensive strategies, tools, and tips from the University of Iowa Hospitals and Clinics*. Indianapolis, IN: Sigma Theta Tau International.

[Tool 5.1 Assembling Evidence.docx](#)

[Tool 5.2 Record of Search History and Yield by Source.docx](#)

[Tool 5.3 Appraisal and Synthesis of Evidence.docx](#)

[Tool 5.4 Summary and Synthesis Table.docx](#)

[Tool 5.5 AGREE II Instrument.docx](#)

[Tool 5.6 Appraise Evidence.docx](#)

[Tool 5.7 Systematic Review Appraisal Tool.docx](#)

[Tool 5.8 Quantitative Research Appraisal.docx](#)

[Tool 5.9 Qualitative Research Appraisal.docx](#)

[Tool 5.10 Other Evidence Appraisal.docx](#)

On Friday, November 29, 2019, 10:09 AM, Kimberly Jordan – University of Iowa Hospitals and Clinics <noreply@qualtrics-survey.com> wrote:

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Citation: Cullen, L., Hanrahan, K., Farrington, M., DeBerg, J., Tucker, S., & Kleiber, C. (2018). *Evidence-based practice in action: Comprehensive strategies, tools, and tips from the University of Iowa Hospitals and Clinics*. Indianapolis, IN: Sigma Theta Tau International.

[Tool 7.1 Determining a Need for a Policy or Procedure.docx](#)

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Citation: Cullen, L., Hanrahan, K., Farrington, M., DeBerg, J., Tucker, S., & Kleiber, C. (2018). *Evidence-based practice in action: Comprehensive strategies, tools, and tips from the University of Iowa Hospitals and Clinics*. Indianapolis, IN: Sigma Theta Tau International.

[Tool 4.1 EBP Project Timeline.docx](#)

[Tool 4.2 General Action Plan.docx](#)

Appendix E

Liberty University IRB Approval**RB-FY19-20-221**THE EFFECTIVENESS OF PATIENT EDUCATION UTILIZING THE TEACH-BACK METHOD TO IMPROVE PATIENT
SATISFACTION

Approval Date: 03-27-2020

Expiration Date: N/A

Organization: Nursing

Admin Check-In Date: N/A

Closed Date: N/A

Current Policy Post-2018 Rule

Active Submissions: N/A

Sponsors: N/A

Appendix F

Press Ganey Satisfaction Survey

Dear Patient: Please help us improve our patient services by completing this questionnaire. All responses will be kept confidential and anonymous. Thank you for your time.

CARE PROVIDER

DURING YOUR VISIT, YOUR CARE WAS PROVIDED PRIMARILY BY A DOCTOR OR A NURSE PRACTITIONER (NP). PLEASE ANSWER THE FOLLOWING QUESTIONS WITH THAT HEALTH CARE PROVIDER IN MIND.

	Very Poor	Poor	Fair	Good	Very Good
1. Friendliness/courtesy of the care provider.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Explanations the care provider gave you about your problem or condition.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Concern the care provider showed for your questions or worries.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Care provider's efforts to include your decisions about Your treatment.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Information the care provider gave you about medications (if any)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Instructions the care provider gave you about follow-up care (if any)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Degree to which care provider talked with you using words you could understand.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Amount of time the care provider spent with you.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Your confidence in this care provider.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Likelihood of recommending this care provider to others....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments: _____

Appendix G

Teach-Back Method Tool: IV/Oral Chemotherapy

Before making treatment decisions and starting treatment, patients need to understand basic health information and services to make appropriate health decisions. Comprehending and managing a health care plan especially for a diagnosis like cancer can be challenging. As recommended by the Agency for Healthcare Research and Quality (AHRQ) and the Institute for Healthcare Improvement (IHI), teach-back method is a technique for verifying patient's understanding of health information and a strategy for taking universal precautions for health literacy.

1. Patients who are newly diagnosed with cancer who will be starting chemotherapy will be scheduled for a follow up visit with the Nurse Practitioner for a pre-chemotherapy patient education utilizing the teach-back method.
2. Patients and their significant others are encouraged to attend the education session.
3. Chemotherapy education sheets will be given to the patient and their significant others during the session. This will include the
 - a. Pre-treatment medications
 - b. Name/names of the chemotherapy regimen including the Generic name and Brand name.
 - c. Approved uses of the medication
 - d. Dose and schedule
 - e. Duration of treatment

- f.** Plan for missed doses
 - g.** Storage and handling
 - h.** Handling body fluids and waste
 - i.** Drug-drug and drug-food interactions
 - j.** Side effects
 - k.** Management of side effects
- 4.** Teach-back includes speaking in plain language. It is a test of how well the information is explained and not to test the patient's knowledge.
- 5.** The Educator will need to plan the approach by reviewing what was discussed. The educator should not wait until the end of the visit to initiate teach-back.
- 6.** If there is a misunderstanding during teach-back, the educator should explain it again by using a different approach until the patient correctly describe the information in their own words. This is clarifying and checking. Patients should not repeat the information in verbatim as this shows the information given was not fully understood.
- 7.** Show-Me method will be used as well. Due to the complexity of chemotherapy regimens patients need to show how they will take the medications prescribed. Demonstration can help prevent mistakes.
- 8.** Handouts will be given along with teach-back. Key information will be written to help patients remember instructions at home. Written materials will be reviewed to reinforce patient's understanding. Patients will be allowed to refer to their handouts when doing teach-back. However, they should be encouraged to use their own words and not read the material back verbatim.

Appendix H

Date: December 19, 2019

To: Gladys C. Apuli, CCNS, FNP-C 355
Crawford St.
Portsmouth, VA 23704

From: Sue Henderson, CCRC

Senior Research Participant Protections Analyst Research Participant
Protections Program (RP)

RE: The Effectiveness of Patient Education Utilizing the Teach-Back Method to Improve Patient Satisfaction

Thank you for providing all the documents regarding your project "The Effectiveness of Patient Education Utilizing the Teach-Back Method to Improve Patient Satisfaction."

Based on your project's details and overall objectives, the Office of Research has determined that it does not fall within the "human subjects research" definition as that term is currently defined in the federal regulations. Therefore, it does not fall within the purview of Bon Secours IRB review, approval, and oversight responsibilities. Further, since there is no identifiable Bon Secours patient data being utilized and transmitted outside Bon Secours, the project does not need BSHSI Regulatory & Compliance Committee review.

Since this project is not human subjects research, the only approval you will need is from your practice's leadership and/or administration. Please verify if any further departmental approvals are required. Our office just makes the determination of whether a project is human subjects research or not and proceeds accordingly through our IRB process if it meets that criteria.

Congratulations on your project and best wishes for its successful implementation!

Thank you,

Sue

Senior Research Participant Protections Analyst
Research Participant Protection Program (RP³) | Bon Secours Mercy Health
8580 Magellan Parkway
Richmond, VA 23227

W: 804-264-7394 | *: 804-627-5160 | Sue

BON SECOURS MERCY HEALTH