

2017

Impact of Telephone Call on Patient Satisfaction in Adult Oncology Patients

Victoria Maria Frazier-Warmack
Walden University

Follow this and additional works at: <http://scholarworks.waldenu.edu/dissertations>

 Part of the [Nursing Commons](#), and the [Oncology 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 Health Sciences

This is to certify that the doctoral study by

Victoria Frazier-Warmack

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. Eileen Fowles, Committee Chairperson, Health Services Faculty

Dr. Deborah Lewis, Committee Member, Health Services Faculty

Dr. Patti Urso, University Reviewer, Health Services Faculty

Chief Academic Officer

Eric Riedel, Ph.D.

Walden University

2017

Abstract

Impact of Telephone Call on Patient Satisfaction in Adult Oncology Patients

by

Victoria Frazier-Warmack, MSN, OCN, RN

MSN, Saint Xavier University, 1993

BSN, Loyola University, 1983

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

Walden University

March 2017

Abstract

Patient satisfaction is an ongoing action in which hospitals and health care providers are constantly seeking strategies to improve their satisfaction ratings. In the ambulatory oncology infusion setting, patient satisfaction is also a key metric that is being monitored, but actual patient satisfaction is unknown. Guided by Lewin's change theory and King's theory of goal attainment, the aim of this project was to use a strategy of conducting follow-up telephone calls to determine if patient satisfaction improved in an ambulatory oncology setting. A descriptive comparative approach was used to evaluate patient satisfaction before and after a telephone follow-up intervention. Participants who were starting an initial or new chemotherapy protocol were randomized into the telephone follow-up (TFU) group or the control group. A TFU script was used to guide the telephone conversation with patients about their experience with the first chemotherapy visit. All participants ($N=62$) completed the OUT-PATSAT 35 questionnaire before starting their chemotherapy and 72 hours after the chemotherapy. Demographic characteristics of participants did not differ from the general cancer population. T tests were used to determine whether satisfaction differed between the two groups and revealed that participants receiving the TFU had significantly greater satisfaction in all domains post treatment, compared to those who did not ($t = 2.90, df = 15, p = .01$), suggesting the TFU had a positive effect on patient satisfaction. Incorporating follow-up telephone calls as a standard of practice to persons receiving an initial or new chemotherapy protocol may contribute to improved patient satisfaction scores and positive social change through an improved sense of well-being in cancer patients.

Impact of Telephone Call on Patient Satisfaction in Adult Oncology Patients

by

Victoria Frazier-Warmack MSN OCN RN

MSN, Saint Xavier University, 1993

BSN, Loyola University, 1983

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

Walden University

March 2017

Dedication

This project is dedicated to my parents, especially to my mother, Yvonne, who went home to be with the Lord in June 2014.

Acknowledgments

I thank all the faculty of Walden University, who helped me throughout my educational journey. I'd like to say thank you to Dr. Christina Amidei, my practicum instructor, who was extremely supportive. I'd like to say a special thank you to my coworkers at the University of Chicago Hospital Outpatient Chemo Infusion Suite and the Out-Patient Chemotherapy Department for all of their support and encouragement. To my daughter, who thanks me for just being her mom. To the Lord, who said I can do all things. And lastly, but not least, my husband, Kevin, who helped me stay centered when I felt I could not go any further and covered me through it all.

Table of Contents

List of Tables	iv
Section 1: Nature of the Project	1
Introduction.....	1
Problem Statement.....	3
Purpose Statement and Project Objectives	4
Project Question.....	5
Nature of the Doctoral Project	5
Significance.....	6
Implications for Social Change in Practice.....	7
Summary	8
Section 2: Background and Context	9
Introduction.....	9
Conceptual Framework.....	9
Review of Scholarly Evidence.....	12
Literature Related to Overall Patient Satisfaction	12
Literature Related to Factors Influencing Patient Satisfaction	13
Literature Related to Effects of Patient Satisfaction.....	15
Synthesis	18
Relevance to Nursing Practice	18
Local Background and Context	19
Role of DNP Student	19

Summary	20
Section 3: Collection and Analysis of Evidence.....	22
Introduction.....	22
Project Approach/Methods	22
Population and Sampling	22
Definition of Terms.....	23
Assumptions.....	24
Limitations	24
Sources of Evidence.....	24
Instrumentation	25
Protection of Human Subjects	26
Data Analysis	27
Summary	27
Section 4: Findings and Recommendations.....	29
Introduction.....	29
Data Collection Procedures.....	30
Instruments.....	30
Findings and Implications.....	31
Demographics	31
Patient Satisfaction.....	32
Discussion	35
Implications for Practice and Areas for Future Research	37

Recommendations for Unit Policy.....	39
Strengths and Limitations	39
Strengths	39
Limitations	40
Summary.....	42
Section 5: Dissemination Plan	43
Dissemination to the Organization.....	43
Dissemination to the Nursing Organization.....	43
Dissemination to Nursing Unit	44
Analysis of Self.....	44
As a Scholar	45
As a Project Manager.....	45
As a Practitioner.....	46
As a Professional.....	47
Summary.....	48
References.....	49
Appendix A: Follow-Up Telephone Script.....	59
Appendix B: Participant Demographic	60
Appendix C: OUT PATSAT35 Satisfaction Questionnaire	61
Appendix D: Permission for use of Questionnaire	64

List of Tables

Table 1. Comparison of Baseline Satisfaction Scores Between Groups32

Table 2. Comparison of Baseline and Post-TFU Satisfaction Scores Overall.....33

Table 3. Comparison of Post-TFU Satisfaction Scores Between Groups33

Table 4. Percent Change from Baseline (Baseline Post-Baseline x100) in Satisfaction
Scores Between the TFU and Control Group35

Section 1: Nature of the Project

Introduction

My aim with this project was to assess patient satisfaction using a strategy of follow-up telephone calls to determine if they would yield improved patient satisfaction in an ambulatory oncology setting. Patient satisfaction is recognized as a key performance indicator in assessing quality of care and is increasingly required by accreditation agencies in the monitoring of quality of hospital care in order to identify care areas in need of improvement, (Lis, Rodeghier, Grutsch, & Gupta, 2009)). According to Panouilleresn et al. (2014), patient satisfaction has become an increasingly important metric in quality of care. Satisfaction with care may influence a patient's adherence to medical treatment and consequently, impact outcomes (Nguyen et al., 2011). Patient satisfaction affects clinical outcomes, patient retention, and medical malpractice claims (Prakash, 2010). It also affects the timeliness, efficiency, and patient-centered delivery of quality health care (Prakash, 2010). Hospitals are looking for better ways to increase patients' satisfaction because their financial compensation is linked to satisfaction ratings. Working in the out-patient area of oncology, there are missed opportunities to increase patient satisfaction where calling and checking on the patient could lead to a "we care about you" approach that provides good public relations for the institution.

There are several factors that can or have impact patient's satisfaction. Something as simple as the nursing personnel smiling, saying hello, asking the patient if the medication arrived as they said it would, or asking if the patients had received the

necessary explanations and if they were provided with all the information they needed on their chemotherapeutic medication. As stated above, patient satisfaction is recognized as a key performance indicator, but there is also a huge amount of financial pressure behind it. The change in Medicare reimbursement has facilitated an increase in the awareness of nursing personnel with regard to the importance of how their performance affects the hospital's bottom line (Petrullo, Lamar, Nwankwo-Otti, Alexande-Mills, & Viola, 2012).

Patient satisfaction scores, such as Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS), have become an integral part of a patient's visit to the hospital. This scoring consists of questions pertaining to factors such as the level of noise on the floor throughout the night, the doctor's bedside manner, and whether the patient would be willing to recommend the hospital to friends and family (Murphy, 2014). The intent of the HCAHPS initiative is to provide a standardized survey instrument and data collection methodology for measuring patients' perspectives on hospital care (Murphy, 2014). While many hospitals have collected information on patient satisfaction prior to HCAHPS, there was no national standard for collecting or publicly reporting patients' perspectives of care information that would enable valid comparisons to be made across all hospitals (hcahpsonlin.org, p. 1). Providing a standard measurement approach allows "apples to apples" comparisons to support consumer choice (hcahpsonline.org, pp. 1-2). Telephone follow-up (TFU) calls are a useful tool to help support patients upon discharge from the hospital. Some of the benefits of TFU calls are that the calls can help to identify symptom burden and address that burden in a timely way, help patients establish better medication adherence, and address any financial challenges such as obtaining their

medications or transportation issues (Flannery, Phillips, & Lyon, 2009).

Problem Statement

Patient satisfaction is an important issue to address in the health care arena as making a patient feel safe is not the only activity that is required when caring for patient. Patient satisfaction is a factor that not only can guide care received or administered, but it also impacts the financial support of the institution as well. Measurement and reporting of patients' experiences has become an important element of health-service evaluation worldwide (Noest et al., 2014).

The nursing units receive feedback on their services from the patient's satisfaction results. Unfortunately, the results often reveal low rating scores. In this project, I addressed a gap in practice regarding the influence that TFU calls could have on patient satisfaction in ambulatory oncology patients who are receiving chemotherapy for the first time. Improving patient satisfaction (i.e. the patient experience) is a very important concern for hospitals and the public alike as assessments of the patient experience are used to measure and report the quality of care provided by a hospital (Bergin, O'Malley, & Donahue, 2015). A patient's perception of satisfaction with their care is a strong motivating factor that can influence the decision to continue to be cared for by a specific physician or at a particular hospital (Prakash, 2010). Working to enhance patient satisfaction goes beyond the walls of the institution. For example, when performing follow-up telephone calls, a nurse could uncover health issues and patient concerns that were not discovered at time of discharge.

Patient satisfaction can also affect hospital reimbursement (Banka et al., 2015).

HCAHPS is a reward system that focuses enhanced reimbursement incentives to hospitals that improve the overall care and maintained patient satisfaction (Petrullo et al., 2013). According to Petrullo et al. (2013), the HCAHPS was developed to monitor patient satisfaction based on information collected by a questionnaire survey of discharged patients regarding their hospital stay, and patient responses that do not support the integrity of these topics threaten reimbursement to hospitals nationwide (p.2). The patient satisfaction information was once presented on a voluntary basis, but now the reimbursement procedures has become a requirement for Medicare covered services, thus creating the shift in financial importance of the HCAHPS survey (Petrullo et al., 2013). Not only does HCAHPS report information about patient's experiences, but beginning in October 2012, hospital reimbursement from the Centers for Medicare and Medicaid Services started linking to HCAHPS data as part of the valued-based purchasing system (Long, 2012). This marked the beginning of the care that patients received as being connected to financial benefit. The HCAHPS makes an important distinction between experience and satisfaction (Long, 2012).

Purpose Statement and Project Objectives

The purpose of this project was to compare patient satisfaction between groups that did or did not receive a TFU call after initiating a new chemotherapy regimen in the ambulatory setting. In this study, the objectives for the TFU were to:

1. Identify patient understanding of discharge instructions and education received on the chemotherapy medication(s).
2. Identify the patient's perspective of care received.

3. Identify symptoms that the patient states are becoming difficult to manage.
4. Make recommendation on discharge follow-up calls based on patient's response to questionnaires and share the results with the ambulatory oncology nursing personnel.
5. Improve the patient's overall experience at the facility and continuity of care.

Project Question

This project was guided by the following project question: Does a follow-up telephone call within 72 hours of an oncology patient receiving an initial chemotherapy treatment or a new treatment yield a higher rate of patient satisfaction when compared to those who do not receive the follow up telephone call after receiving initial chemotherapy or a new treatment? The question posed came about because of constant low patient satisfaction scores for the outpatient area of the infusion suite for several quarters. When suggestions for improving patient satisfaction were requested at several meetings, the staff continued to provide very little feedback or solutions.

Nature of the Doctoral Project

Previous studies have suggested that follow-up telephone calls improve patient satisfaction (Bunn, 2008; Clark & Milner, 2013). The nature of this project was to assess satisfaction levels in patients before and after initiation of chemotherapy, comparing satisfaction in those who received a follow-up telephone call to those who did not receive the call. Patient satisfaction was measured using a questionnaire that had been evaluated

specifically in the ambulatory oncology population. All participants completed the form pre- and post-treatment to provide evidence of satisfaction.

Significance

The significance or relevance of patient satisfaction is an important agenda to be prioritized in carrying out the day-to-day business of caring for others. Using this satisfaction rating allows the institution to make a statement that the patient's satisfaction is a priority. Patient satisfaction is important because it describes the flow of care the patient receives, the courtesy they receive, or if the patient would recommend a particular institution versus another institution. The use of TFU calls is a good strategy to address patient satisfaction. According to Kimman et al. (2010), to improve healthcare, feedback from patients is essential as feedback evaluates the quality of the care provided and can isolate problem areas and help generating ideals for further improvement.

The evidence-based significance of patient satisfaction ratings is that patients are becoming more discerning about their perceptions of the care they receive. Patients are more likely to return to a specific health care facility if they perceive they are being treated well (Clark & Milner, 2013). When patients feel that they are being treated well, they may report a high level of patient satisfaction, which in turn could improve the level of financial support the institution receives (Al-Abri & Al-Balushi, 2014). The metrics used to monitor patient satisfaction are an evidence-based criterion that is monitored closely by funding agencies (Hall, Dugan, Zheng, & Mishra, 2001). Improving and maintaining patient satisfaction ratings is an ongoing initiative for many health care institutions.

Implications for Social Change in Practice

An important aspect of patient satisfaction is that nurses and the institution may need to alter the delivery of care to improve to patient satisfaction. The health care industry needs to identify care delivery modalities that improve or ensure a patient's satisfaction with their care. There is great importance in making sure that any tools used to alter or impact patient satisfaction needs to be timely, safe, and measurable, also determine its efficacy, effectiveness and cost-effectiveness in improving the quality of life and quality of care, (Askew et al. 2016). Research has shown that performing a follow-up call to a patient after discharge identifies any unspoken issues and leads to a decrease of frequent and unnecessary hospital and/or emergency room visits when calls are made in a timely fashion (Dudas, Bookwalter, Kerr, & Pantilat, 2001).

Conducting early discharge planning and follow-up telephone calls are two strategies that can support continuity of care and address any issues that may arise once a patient is discharged. Persons at risk for adverse outcomes after hospital discharge often have multiple health, functional, and social care needs (Holland, Knafl, & Bowles, 2013). Many patients encounter various problems and develop unmet health care needs in the first few weeks after hospital discharge, including difficulty with activities of daily living, emotional problems, knowledge deficits, insufficient help, uncertainty and anxiety, and a need for more information than was received during the hospital stay (Hollman et al., 2013).

This project of conducting follow-up telephone calls in the ambulatory oncology unit could lead to improvement in oncological symptom management, emotional support,

and assisting patients to adhere to their chemotherapy regimen. Patients may be more likely to follow instructions when they are more satisfied with the care received. When patients feel more satisfied with care provided they are more confident and experience increase centeredness in the ability to manage their care. This leads to less frightened phone calls from patients and less emergency room or unscheduled visits. Providing the TFU, creates that connection and knowing the support continues once that leave the treatment area.

Summary

Seeking patient satisfaction is an ongoing initiative for health care organizations and an important metric to address. Patient satisfaction scores influence the financial support that these organizations receive (Murphy, 2014). Identification of health care delivery strategies that improve patient satisfaction is necessary for health care institutions to remain competitive and operational. Not only is patient satisfaction an important factor for health care institutions to achieve, but a patient who is satisfied with their care and confident with the care received from their health care providers may be more likely to follow home care instructions and take necessary medications as ordered (Montes, Maurino, Diez, & Saiz-Riuz, 2010). Health care organizations need to be aware of the level of patient satisfaction to guide any changes to the delivery of care. Using a TFU call may be one strategy to improve patient satisfaction in an outpatient oncology unit. In Section 2, I will describe the evidence from the literature that addresses the importance of patient satisfaction and the effectiveness of strategies to improve patient satisfaction.

Section 2: Background and Context

Introduction

The purpose of the project was to compare patient satisfaction between groups that did or did not receive a follow-up telephone call after initiating a new chemotherapy regime in an ambulatory oncology setting. Adults with cancer receiving chemotherapy may present health care workers with a number of challenges (Lyon, Marcome, & Key, 2010). Addressing patient satisfaction is a needed component to patient care. Patient satisfaction after initiating chemotherapy is particularly important to address because chemotherapy is given more commonly as an out-patient treatment facility during a stressful life episode. In this section, I will provide a review of literature related to this topic and present a framework for the study related to the literature reviewed.

Conceptual Framework

The conceptual framework for the project was comprised of Lewin's change theory and King's conceptual system and theory of goal attainment and transactional process. King's conceptual system and theory of goal attainment and transactional process was the overarching conceptual framework for this project.

Lewin, considered the founder of social psychology, identified that "human behavior is either a direct action or emotional expression" (Lewin, 1939, p.262). Lewin's change theory purports that change becomes permanent based on a three-step process: unfreeze-change-freeze (Morrison, 2014). According to Lewin (1939), individuals will not move naturally in a direction that is unfamiliar to them and usually stay centered to what is comfortable and pose no harm (p. 869). Children and adults adapt differently to

change. For example, the “child tries things that fit child-like behavior and activities and the adult would address adult items even though the adult could actually do both” (Lewin, 1939, p. 874). The challenge, according to Lewin, is the lack of clear direction leading to “uncertainty of behavior” (p. 876). Bringing about a desired state of affairs one should not think in terms of the “goal to be reached,” but rather in terms of a change from present level to a desired one and breaking a well-established custom or social habit, citing that the resistance may be caused by inner conflicts (Lewin, 1947, p. 32). Group decisions depend partly on how the group views the situation, and therefore, can be influenced by a change in perception, which is essential to decision about the next step (Lewin, 1947).

Lewin’s change theory (Robbins, as cited by Kritsonis, 2004) states that:

Unfreezing can be achieved by the use of three methods; first, increase the driving forces that direct behavior away from the existing situation or status quo; second, decrease the restraining forces that negatively affect the movement from the existing equilibrium, and third, finding a combination of the two methods listed above. Changing involves a change in thoughts, feelings, behaviors, or all three, that is in some way more liberating or more productive. Refreezing is establishing the change as a new habit, so that it now becomes the “standard operating procedure.” Without this stage of refreezing, it is easy to go back to the old ways. (p. 2)

Lewin’s change theory looked at moving an individual from three different positions, where the behavior at each position is a new one. Lewin’s theory identified three

positions that must occur if the planned change is to be successful: in freezing the status quo, moving to a new state, and refreezing the change to make it permanent.

King's theory of goal attainment is used to look at individuals, nurse-client interactions, and nursing, while King's conceptual system is an organizing guide for nursing practice (McEwen & Wills, 2011). The use of King's theory is a good practice model to implement. King's interaction process is transaction, which involves bargaining, negotiating, and social exchange. Goal attainment is the salient factor of King's theory, and it is only through nurse-patient interaction and transaction that mutual goals can be set, (Khowaja, 2006). The premise that I based this study on was that through using this theory, nursing care would be delivered differently beyond the nurse's work area (i.e., the follow-up phone calls).

According to King (1997), there are three systems that interact with each other to reach any set goals. The element of Lewin's model theory that applied to this project was the freeze element. The outcome that I sought in using this element was to establish a permanent change in nursing practice. This general system framework indicates that the focus of the theory is the care of human beings (King, 1997), with the ultimate goal being the health of the individual. According to this theory, there is an interaction that allows or interacts with each other to stimulate changes, and the links are systems of personnel and patients (King, 1997). The theory consists of a give and take process between the transformations of care, direction, and ultimately, goals obtained by clients, nurses, and the environment (King, 1997).

According to White and Dudley-Brown (2012), the development of translational models or frameworks has been slow but includes many and varied approaches for introducing evidence and changing behavior and performance, which are all based on different assumptions about change. Lewin's view is:

that if one could identify, plot and establish the potency of (driving and restraining) forces, then it would be possible not to only understand why individuals, groups and organizations act as they do, but also what forces would need to be diminished or strengthened to bring about change. (Shirey, 2013, p. 29).

Shiley (2013) stated that when managers or supervisors are making or creating a change in practices, it must come from the top down.

Review of Scholarly Evidence

I conducted a systematic literature search using MEDLINE, PubMed, CINAHL, PsycINFO, ProQuest, Cochrane Database of Systematic Review, and the Joanna Briggs Institute EBP Database. Initial review of articles over the past 5 years yielded only two articles; therefore, the review timeframe was widened to provide a more comprehensive review of the topic. The following keyword search terms were used: *cancer, oncology patients follow-up telephone calls, ambulatory patient satisfaction, patient satisfaction, and "patient experience*. I reviewed 30 articles and used 24 articles in this study.

Literature Related to Overall Patient Satisfaction

Patient satisfaction is a growing concern for many health care institutions that have made this goal a major metric to follow and increase their ratings. In looking at

different ways to meet this need, it is apparent that trust has to be built and established. Through trust, smooth transition from clinic to home can be established and the presence of continued support is maintained, Trust is defined as the willingness of one exchange partner to be vulnerable to the actions of another, based on the expectation that the other will perform some action in the absence of monitoring or control (Colquitt, Baer, Long, & Halvorsen- Ganepola, 2014). Trust and satisfaction are closely related, in that trusting patients are likely to be more satisfied and previous good encounters are likely to foster greater trust (Hall, Dugan, & Mishra, 2001).

Patient satisfaction is a very key term used in many leadership meetings, and patients are valued consumers (Prakash, 2010). And as valued consumers, patients have become wiser in expressing their opinions when questioned about the care that was rendered or received (Chakrabarti, et al., 2016). Patient satisfaction is also an important and commonly used indicator for measuring the quality in health care. Patient satisfaction affects clinical outcomes, patient retention, and medical malpractice claims as well as the timely, efficient, and patient-centered delivery of quality health care (Prakash, 2010). Since patient satisfaction is not just a proxy for doctors and hospital's evaluation of services, but is used as an effective indicator to measure quality of care provided by doctors and hospitals under these circumstances, it may be more appropriate to address the patients as *consumers*.

Literature Related to Factors Influencing Patient Satisfaction

Rolfe (2014) looked at the trust factor that is needed or missing to create a working relationship. According to Rolfe, trust is a fundamental part of a patient-doctor

relationship and is associated with increased patient satisfaction, adherence to treatment, and continuity of care, although blind trust may on occasion facilitate poor care.

According to Rolfe, patient trust is built largely on a health care personnel's interpersonal competence. Rolfe (2014) examined different interventions and conducted a randomized controlled trial of 11,063 patients. The true value of trust was the significant factor that influenced the level of patient satisfaction.

In a different study, Moore (2014) examined the communications issues in patients with cancer. According to Moore, people with cancer, their families, and their careers have a high prevalence of psychological stress which may be minimized by effective communication and support from their attending healthcare professionals and can improve patient satisfaction with their care. Factors, such as trust and communication, must be considered when evaluating patient satisfaction.

Burns, Byrne, & Kendall (2005) examined patients' use and response to triage services and how this led to any form of the patient's satisfaction. Burns found that minorities and older people did not use this service well. According to Burns, although some telephone consultation is done by doctors, much is now done by qualified nurses using computer based clinical decision support systems.

Again, patient satisfaction outcome was part of this review. One important concern I kept in mind was that when patients were discharged home, there was the misconception that all is well and patients were satisfied. But the survey feedback found differently. The goal of this project was to identify the impact of the intervention used (follow-up telephone calls) on patient's satisfaction. TFU calls allow the nurse to see the

whole picture and make clinical decisions for care based on from the information provided using an evidenced-based approach to care.

Healthcare system standards of care in providing clinical excellence are a given assumption among customers. The difference among providers—as perceived by patients and their families—is in the way patients are treated (Clarke & Milner, 2013). In their study, Clark and Milner (2013) developed a plan of increasing their patient’s satisfaction with their facility. They noted that conducting follow-up calls to patients were helpful, not just to one department, but any department mentioned in the patient’s feedback.

In study conducted by Hafili, Salmon, and Hussain (2012), the researchers looked at TFU calls following a surgical procedure. The premise of this study was to determine if TFU calls impacted patient satisfaction. According to Hafili et al., there were positive results regarding the TFU calls. Overall patient satisfaction in the study of the TFU service was high (94% in New Zealand and 96% in the U.K.). Hafili et al. also stated that TFU calls post-surgeries are a cost-effective, time-efficient way of achieving high levels of patient satisfaction.

Literature Related to Effects of Patient Satisfaction

Patient satisfaction is not just making patients happy by giving them free lunch, snacks, free parking, or a gift with the institution’s logo on it. Patient satisfaction is thus a proxy, but also a very effective indicator to measure the success of doctors and hospitals (Prakash, 2010). Prakash looked at patient’s satisfaction from a dermatological practice perspective and addressed ways to improve the patient experience. The resulting article addressed key pieces to patient satisfaction, such as making the care provided

patient centered; looking at how patients were approached and the education they were provided with; being timely in approaching them; and identifying that their experiences last and impact their satisfaction, which they report and can impact their financial attachment to the care provided and feedback from them (Prakash, 2010).

Patient satisfaction is closely linked to the financial status of the institution. Patient feedback on survey questionnaires is carefully reviewed by the hospital administrators and often leads to changes in organizational structure, to nursing practice, and approaches to care (Williams, Coyle, & Healy, 1998). Patient satisfaction in the ambulatory setting is as important as those results that are collected from the inpatient experiences. It does not matter if the patient is inpatient or outpatient, patient satisfaction is important. According to Li et al. (2014), patient satisfaction has been adopted as a widely-used criterion for assessing the quality of healthcare services and pivotal in the continuous monitoring and quality improvement of healthcare delivery programs. Li et al.'s study examined patient satisfaction related to medication-related services in the hospital before being discharged. This research used a self-reported questionnaire and was given to 540 individuals in Chinese tertiary hospitals. The participants in the study rated their satisfaction with overall medication-related services between "somewhat satisfied" and "satisfied." The institution did learn some areas of deficiency in how they managed care or delivery of services in their medication-related services. Li et al. stated the study's results revealed low levels of patient satisfaction with the financial aspect of medication-related services and showed that the major impact of pharmaceutical care services on patient satisfaction lies in the care shown to patient's medication therapy and

information.

Patient satisfaction is an important aspect of care. From something as simple as providing fresh water when requested to calling after discharge to see how they are coping. Post-discharge telephone calls are an important tool of continued care and can identify any deficiencies not identified prior to discharge from the hospital or ambulatory clinics. Flannery, Phillips, and Lyons (2009) examined the number of calls made to the ambulatory oncology and the reasons as to why they were made. Some of the reasons for the calls were the following, (a) reported symptoms, (b) request test result, laboratory, x-ray, (c) plan of care questions/issues, (d) prescriptions renewal, and (e) insurance questions and medication information (Flannery, Phillips, & Lyons, 2009).

Follow-up telephone calls have been conducted not only with oncology patients but different types of patient in making sure they were capable and able to perform self-care management once discharged. Kimman et al. (2010) conducted a research study examining the effects of nurse-led TFU calls addressing women after curative treatment for breast cancer. They found that the patient satisfaction was higher than waiting on the traditional hospital follow-up calls. Also, they identified issues, medication issues and support more timely than traditional hospital follow-up calls. The positive outcomes were influenced by having the TFU calls conducted by nurse with a strong background in breast cancer who had the knowledge base that helped reassure pt. and created a more favorable outcome and leading to better patient satisfaction (Kimman et al., 2010).

Kimman et al. (2010) emphasized the importance of creating, modifying, and taking patient's perception of care as an important metric to establish and maintaining in

patient's satisfaction. No matter the type of care that is being rendered to the patient, the strategic goal is and should be to create such an impact in the quality and quantity of care that it will lead to better and improved patient satisfaction. In improving the patient satisfaction levels, the goal would be to maintain the increased patient satisfaction levels.

Synthesis

Based on the research literature reviewed, the primary theme was that patient satisfaction should not be taken lightly. As the health care climate change, institutions, medical care providers and financial constraints can and will be affected by patient satisfaction scores. Because of new changes, along with requirements of HCAPS, the need to find ways of improving patient satisfaction scores is a must. The literature did not reveal the best set of interventions when addressing patient satisfaction. But these authors suggest that TFU calls might be a reasonable approach to address patient satisfaction

Relevance to Nursing Practice

The relevance to nursing practice is that patient satisfaction impacts patient's outcome. When they feel more satisfied in their care, they are more compliant, feel more centered and feeling more satisfied increases confidence. Providing the follow-up telephones keeps the patient connected. Follow-up telephone calls are convenient for patients and provide continuity of care (Beaver, Williamson, & Chalmers, 2010). Follow-up telephones calls impacts frequent hospitalizations (lessens them), addresses issues more timely and minimizes unnecessary clinic visits. One important relevance that TFU have to nursing is the relation building opportunities between patient and nurse.

Local Background and Context

The setting for this study was an out-patient ambulatory chemotherapy infusion center affiliated with a large metropolitan teaching institution. The patients receive chemotherapy in oral, subcutaneous, intravenous infusion, intradermal, and intrathecal forms. The unit operates Monday–Friday, during the hours of 8:00am to 6:30pm. There are 38-54 treatment chairs and rooms. The ambulatory oncology setting sees about 5,500 new oncology patients annually, approximately 105 new oncology patients per week.

Role of DNP Student

I am very interested in patient's satisfaction levels. In my work area, our patient's satisfaction results revealed our ratings were low. So, I wanted to see what intervention(s) could be incorporated to change the outcomes of patient satisfaction in my area. I researched and found patients responded favorable in receiving a follow-up call. Prior to the start of my project, I in-serviced the staff, and had the packets ready to conduct the project. The participants were oncology patients who receiving chemotherapy for the first time or was receiving a change in their current treatment modality. I worked with pharmacy and used the scheduling system to identify patients receiving chemotherapy for the first time. All patients that meet the eligibility were open to participate in the DNP project. If a patient was too anxious or nervous, the assigned nurse would let me know if that individual was a good candidate or not. I conducted the project until I met my desired number of candidates. I was excited in conducting the project and following up with the patients. Consent for each participant and the follow-up telephones calls were done by myself.

Summary

This evidenced-based practice project proposed to evaluate satisfaction in patients receiving chemotherapy for the first time, and whether satisfaction differed between those who received a TFU and those who did not. This information will be used to change nurse behaviors in making this follow-up calls. According to Morrison (2014), Lewin's change theory model is based around a three-step process (Unfreeze, Change, and Freeze) that provides a high-level approach to change. Utilizing this theory, was used to assist nurses in changing their normal practices which does not include follow-up telephone calls in using the change theory the goal is to change nurse's behavior from not doing to understanding why it is important to change and how to make the change permanent. Lewin's change theory looks at the issues being addressed (change), the process of making changes taking place in the system and the system taking on a new permanent change in practice issue/setting. Lewin (1948) stated (a) the character of the beginning situation, (b) some happenings designed to bring about certain change, and (c) a study of the end situation to see actual effect of the happening on the beginning situation (p.151). This three-step model gives a manager or change agent an idea of what implementing change means when dealing with people. Change is a way of life in today's culture and in the healthcare system. It is defined as "the process of making or becoming different" and comprises two components: content (what will be different) and process (how this will affect the people), (Zindani, 1996). The three phases of the Lewin model provide guidance on how to go about getting people to change: A manager will

implement new processes and re-assign tasks, but change will only be effective if the people involved embrace it and help putting it into practice it (Morrison, 2014).

Section 3: Collection and Analysis of Evidence

Introduction

The aim of this project was to assess patient satisfaction using a strategy of follow-up telephone calls to determine if they yield improved patient satisfaction in an ambulatory adult oncology setting. The use of a patient satisfaction questionnaire not only measured patient satisfaction but helped identify ways to improve the ambulatory oncology area. In this section, I will address the research design I used to conduct this study.

Project Approach/Methods

I used the descriptive comparative approach for this project to evaluate patient satisfaction outcomes before and after a TFU intervention. The descriptive comparative design is used to examine differences among groups, (Grove, Burns, & Gray, 202013). The participants had an equal opportunity in being placed in either groups, minimizing the risk of bias coming into place.

Population and Sampling

I considered any adult oncology patient receiving their first dose of an infusion or oral chemotherapies regimen in the ambulatory setting for inclusion in this study. The target number of participants was 30. This number was determined by a power analysis estimate that identified a sample size of 30 as being reasonable given the construct of this DNP project. Using a G*power to assume sample size, assuming .80 power with an alpha error of 0.5 and an effect size of 0.5, the total sample size required was 28 subjects (Faul, Erdfelder, Lang, & Buchner, 2007).

My participant inclusion criteria for the study were:

1. Those receiving chemotherapy initially or for the first dose in a treatment protocol.
2. Age 18 years of age or older.
3. Able to provide informed consent.
4. Able to communicate via telephone and with telephone access.
5. Able to read and write in English and able to complete a written questionnaire.

The exclusion criteria for the study were:

1. Those on a chemotherapy that was not the initial therapy.
2. Younger than 18 years of age.
3. Unable to provide informed consent.
4. Unable to communicate via telephone or without telephone access.
5. Unable to read and write English or unable to complete questionnaire.

Potential participants were identified by the study PI through schedulers of the oncology division in the ambulatory setting, the pharmacist working in the infusion center, and the oncology nurses working in the outpatient ambulatory infusion center who were able to identify a patient as a “first timer.” For this project, the term “first-timers” refers to someone who arrived new to the system who was receiving chemotherapy for the first time at the institution or switching to a new chemotherapy regimen. I reviewed the daily schedule to identify patients who were scheduled and confirm first time patients.

Definition of Terms

Terms used in this study are defined as follows:

Chemotherapy: The use of antineoplastic drugs to promote tumor cell destruction by interfering with cellular function and reproduction (Nettina, 2014).

Patient satisfaction: Patients' emotions, feelings, and their perceptions of delivered healthcare services (Al-Abri & Al-Balishi, 2014).

Assumptions

Assumptions I made in this project included that patients may or may not want to participate in the project by refusing to accept a follow-up telephone call. Additional assumptions included widespread and general dissatisfaction with their experience in the outpatient chemotherapy department. Also, participants' answers may be ill-considered or whimsical, and misjudgments arising from patients' reliance on perceptions based on surrogate indicators (i.e., the halo effect; Fitzpatrick, 1991).

Limitations

One limitation to the study was that patient perceptions and expectations for health care services might vary systematically according to sociodemographic and clinical characteristics and the timing of data collection (after discharge versus before discharge). These characteristics may also influence patients' responses and participation in the study (Tzeng, Ketefian, & Redmond, 2002). Another limitation of the study was patient's anxiety levels which created inability focus at times.

Sources of Evidence

I approached possible patient participants and provided them with written and oral written instructions on the project purpose, requirements, and duration of their commitment. If willing to proceed, then informed consent was obtained. Once informed

consent was obtained, patients were randomized to the TFU group or the control group by flip of a coin. Both groups were asked to complete a patient satisfaction survey within seven days or less of starting treatment. Upon leaving the chemotherapy infusion area, participants were given a second patient satisfaction form to complete 72 hours after receiving their chemotherapy. A stamped, addressed envelope for return of the form was provided. To prevent bias, all participants were provided the same information (verbal and written form). Participants who were in the TFU group received a TFU call at the number of their choice within 24–72 hours after receiving chemotherapy from myself. A script (see Appendix B) was used with the TFU group to guide the follow-up call. Participants were reminded to return the questionnaire during the TFU. Control group participants did not receive any reminders.

Instrumentation

I collected demographic information, including age, gender, marital status, living status, employment status, educational level, and type of cancer, as well as previous experience with cancer treatment (see Appendix B). The tool that I used to assess patient satisfaction was the OUT-PATSAT 35 (see Appendix C). This tool is a 35-item, 13-subscale questionnaire that evaluates patient perception of satisfaction with doctors, nurses, and institution (Nguyan et al., 2011). The OUT-PATSAT 35 questionnaire has been a widely used to address patient satisfaction and is a reliable and valid instrument (Arraras et al., 2012). Correlation with overall satisfaction is high and statistically significant ($p < 0.01$) for all subscales (in comparison with the highly validated and reliable EORTC QLQ-C-30), especially for the nurse's domain, which also had higher

scores (Arraras et al., 2012).

In their study, Nguyen et al. (2011; see Appendix C) stated the following:

The OUT-PATSAT35 13 multi-item scales are organized into three sections of four scales each: 2 sections evaluating doctors and nurses (for chemotherapy) or radiation therapists (for radiotherapy), as regards their technical skills (knowledge, experience, assessment of physical symptoms), interpersonal skills (interest, willingness to listen), provision of information (about the disease, medical tests and treatment), and availability (time devoted to patients); and a third section evaluating the organization of the department, the exchange of information between caregivers (coherence, identification of the reference doctor), the interpersonal skills and quality of information provided by other hospital staff, waiting times (for consultation, medical tests, or treatment), the physical environment (access, comfort, orientation), and lastly, a single-item, overall satisfaction scale. (pp. 2–3)

The following five-level response scale is used: poor, fair, good, very good, or excellent, and this scale format has been shown to be helpful in reducing the ceiling effect (Arraras et al. 2013). I was granted permission allowing use of this questionnaire for this study (see Appendix D).

Protection of Human Subjects

I randomly assigned the participants to either Group 1 or Group 2. Participant confidentiality was maintained through secure storage of the data and limiting the use of

identifiable data. Only I, PI, the research mentor, and their delegates had access to the data.

I coded the study database and images with indirect identifiers. This was necessary to be able to link de-identified data obtained from different sources. The minimum necessary Personal health information was collected. The code linking subjects with identifiers were destroyed at the conclusion of the study or for an individual subject at the time they withdraw from the study. I will maintain the de-identified database for 7 years following study completion per institutional protocol.

The participant's information was stored in a secure cabinet where only the PI and I had access to their information. Approval to conduct this project was obtained both by the University of Chicago Medical Center Institutional Review Board (IRB; IRB protocol number: 15-1020) and by Walden University IRB (IRB number: 15-1020). University of Chicago served as the principle site for IRB approval before obtaining consent from any participant. The project was conducted at the University of Chicago Medical Center.

Data Analysis

I performed the statistical analysis for this study under the guidance of coinvestigator (CA) using SPSS statistical analysis software. Descriptive statistics were used to analyze patient participants' demographic data and overall satisfaction. *T* test measures were used to compare satisfaction between the two groups before and after first chemotherapy dose.

Summary

Patient satisfaction is such an important metric to measure and monitor

constantly. There was a time when patients wanted to share their dissatisfaction, but at times felt there was no true outlet for them to express this. The satisfaction surveys and questionnaires are now used to obtain a pulse on the patient's perspectives on the quality and quantity of care and services provided. Patient satisfaction is a crucial aspect of the quality of care provided (Lopez, Valenzuela, Calderon, Velasco, & Fajardo, 2011) According to Lopez et al. (2011), follow-up telephone calls are a good tool to use when looking a patient satisfaction.

Measurements of patient satisfaction have become an important indicator of the performance and outcomes of medical services (Mahon, 1996). Dissatisfaction of care can be harsh, but it provides opportunities for health care industries to really zero in on what is working well and not working well. TFU calls are a great tool to use to ascertain dissatisfaction and other issues taking place. They can also be used to obtain other health care problems or concerns that the patient is experiencing, such as misunderstanding of their medications, test results, or any symptom burden. By conducting this project, my aim was to improve patient satisfaction in the ambulatory oncology unit.

Section 4: Findings and Recommendations

Introduction

I conducted this DNP project in response to an ambulatory outpatient oncology unit's desire to improve patient satisfaction ratings. This desire presented a novel opportunity to develop an improvement project by exploring factors that can improve patients' satisfaction scores. For a newly diagnosed patient coming into a new setting or environment and experiencing the unknown, having cancer can be frightening. My specific reason for conducting this project was to determine whether a new strategy, a follow-up telephone call, could positively impact patient satisfaction reports. Patient satisfaction is an ongoing action in which hospitals are constantly seeking strategies to impact their satisfaction ratings. As such, patient satisfaction is a key metric that is monitored closely and also has a financial component attached. This project can be used in any nursing unit or clinic.

The project question was as follows: Does a follow-up telephone call within 48–72 hours of an oncology patient receiving an initial chemotherapy treatment or a new treatment yield a higher rate of patient satisfaction when compared to those who receive a mailed patient satisfaction questionnaire? Receiving chemotherapy can be a difficult component of health care. Patient satisfaction becomes lost in the busy activities of any individual going through the journey of chemotherapy. Receipt of a follow-up telephone call was a simple and direct intervention that could identify any potential or actual barriers and provide clarification on medications, schedules, and any symptom management from the actual chemotherapy received. With this project, I sought to learn

what factors patients experience after a new chemotherapy treatment is started and how they influence patient's satisfaction with care.

Date Collection Procedures

I conducted this project in the following manner. Participants were asked to participate in this study after I identified if they met the criteria. When obtaining the consent from the potential participants, I worked with the nurse(s) caring for the participants. The nurse identified if the patient was a potential candidate. Once informed consent was obtained, the participants were randomized to either the TFU or control group. Participants were then asked to complete the questionnaire prior to their first dose of chemotherapy, and they were then asked to complete the questionnaire again 72 hours after receiving their first dose of chemotherapy. Upon leaving the hospital each participant was given a second satisfaction questionnaire and a preaddressed and stamped envelope to return. The participants were also asked to complete a brief demographic questionnaire about their age, gender, marital status, living status, employment, educational level, previous experience with cancer, and system affected by cancer. Subjects in the TFU group then received a follow-up call within 72 hours of completing their first chemotherapy dose, while subjects in the control group did not receive a follow-up call. All subjects had an equal chance of being assigned to either of the two groups. The subjects who were randomized to receive the TFU call were asked questions about their experience with their first chemotherapy.

Instruments

The questionnaire participants were asked to complete the OUT-PATSAT 35, a

35-item, 13 subscale questionnaire evaluating their perception of doctors, nurses, and institution, as previously described (Nguyan et al., 2011). The questionnaire took about 5 minutes to complete. The duration of a subject's participation in this study was about 4–10 days. Participation ended when the second questionnaire was completed and returned by mail in the self-addressed envelope. In the following subsections, I will present the findings, discussion, implications for practice and recommendations for future study, as well as the study limitations.

Findings and Implications

Demographics

I recruited 36 participants into this project with 17 randomized into the treatment group receiving a TFU and 19 into the control group. Two participants from the control were removed, one asked to be removed and the other became too ill to continue. The mean age of the entire group was 63.6 years (range: 35–85 years; $SD = 10.2$). There were 22 (61%) females and 14 (39%) males. The majority of participants were married ($n = 20, 56%$), while 42% were single, widowed, or divorced. Most participants lived with a spouse or other family members ($n = 23, 64%$), while 33% lived alone. Slightly less than half of the participants were retired ($n = 17, 47.2%$), while 13 (36%) were still working. The majority of participants had graduated from college ($n = 21, 58.3%$). Most participants had previous personal experiences with or exposure to cancer treatment ($n = 22, 61%$). Systems most commonly affected by the current cancer were lung ($n = 8, 22%$) and gastrointestinal (colon, stomach, or pancreas; $n = 8, 22%$), followed by blood and lymphatic system ($n = 6, 17%$) and breast ($n = 5, 14%$).

Patient Satisfaction

For the entire group, baseline domain mean satisfaction scores showed the highest level of satisfaction with the nurses (4.73), followed by the doctors (4.57), then with chemotherapy care services (4.44) and ambulatory services (4.32). Mean overall satisfaction with care received was 4.78, and the mean total satisfaction score was 4.57. Using independent *t* tests with equal variances not assumed, I found no statistically significant differences in baseline domain, overall, or total satisfaction scores between the TFU group and the control group (see Table 1).

Table 1

Comparison of Baseline Satisfaction Scores Between Groups

Domain	TFU Mean (SD)	No TFU Mean (SD)	<i>t</i>	<i>df</i>	<i>p</i> value
Satisfaction with doctors	4.71 (0.52)	4.64 (0.59)	1.43	33	0.16
Satisfaction with nurses	4.86 (0.48)	4.62 (0.49)	1.43	34	0.16
Satisfaction with chemotherapy care	4.68 (0.60)	4.62 (0.68)	1.19	34	0.14
Satisfaction with ambulatory services	4.53 (0.64)	4.32 (0.70)	1.78	34	0.08
Satisfaction overall	4.83 (0.53)	4.85 (0.76)	0.43	34	0.66
Mean score ^a	4.72 (0.50)	4.63 (0.45)	1.78	34	0.08

Note. ^aMean score reflecting the average of the following items: satisfaction with doctors, nurses, chemotherapy care, ambulatory services, and overall satisfaction.

After the initial chemotherapy treatment, the entire group's baseline satisfaction scores showed a decrease in all domains (see Table 2), but were only significantly decreased for the satisfaction with chemotherapy care services domain. Using paired *t* tests with equal variances not assumed, mean scores for the entire group related to

satisfaction with chemotherapy care services domain decreased from 4.51 to 4.13 ($t = 2.57$, $df = 30$, $p = 0.02$). This decrease was likely responsible for the decrease in total mean satisfaction from 4.63 to 4.30 ($t = 2.21$, $df = 31$, $p = 0.35$).

Table 2

Comparison of Baseline and Post-TFU Satisfaction Scores Overall

Domain	Baseline Mean (SD)	Post-TFU Mean (SD)	<i>t</i>	<i>df</i>	<i>p</i> value
Satisfaction with doctors	4.58 (0.59)	4.38 (0.83)	1.44	30	0.16
Satisfaction with nurses	4.79 (0.45)	4.69 (0.53)	1.06	31	0.30
Satisfaction with chemotherapy care	4.51 (0.61)	4.13 (0.99)	2.56	30	0.02
Satisfaction with ambulatory services	4.46 (0.58)	4.22 (0.86)	1.85	30	0.07
Satisfaction overall	4.83 (0.52)	4.66 (0.65)	1.74	30	0.09
Mean score ^a	4.63 (0.44)	4.37 (0.77)	2.20	31	0.04

Note. ^aMean score reflecting the average of the following items: satisfaction with doctors, nurses, chemotherapy care, ambulatory services, and overall satisfaction.

Using independent *t* tests with equal variances not assumed, posttreatment patient satisfaction scores between the TFU group and the control group for each domain were found to be significantly better in the TFU group. Table 3 displays posttreatment results for each domain, along with overall satisfaction score and total mean score.

Table 3

Comparison of Post-TFU Satisfaction Scores Between Groups

Domain	TFU Mean (SD)	No TFU Mean (SD)	<i>t</i>	<i>df</i>	<i>p</i> value
Satisfaction with doctors	4.71 (0.58)	3.99 (0.95)	2.47	20	0.02

Satisfaction with nurses	4.89 (0.54)	4.44 (1.11)	2.47	17	0.02
Satisfaction with chemotherapy care	4.66 (0.55)	3.76 (0.68)	3.29	18	0.00
Satisfaction with ambulatory services	4.53 (0.64)	4.13 (0.91)	3.31	15	0.00
Satisfaction overall	4.96 (0.16)	4.34 (0.81)	2.90	15	0.01
Mean score ^a	4.75 (0.37)	3.94 (0.89)	1.98	18	0.00

Note. ^aMean score reflecting the average of the following items: satisfaction with doctors, nurses, chemotherapy care, ambulatory services, and overall satisfaction.

The percent difference in scores from baseline to the follow-up period for both groups is displayed in Table 4. A percent increase from baseline score was noted in overall satisfaction as well in total satisfaction score for the TFU group. In addition, percent decrease from baseline scores was noted in satisfaction with nurses and satisfaction with chemotherapy care in the TFU group, while percent decrease from baseline scores was noted in each domain of the group not receiving the TFU. Percent decreases from baseline were significantly worse in the group not receiving the TFU, while those receiving the TFU maintained relatively stable satisfaction scores.

Table 4

Percent Change from Baseline (Baseline-Postbaseline x 100) in Satisfaction Scores Between the TFU and Control Groups

Domain	TFU Mean % Diff	No TFU Mean % Diff	<i>t</i>	<i>df</i>	<i>p</i> value
Satisfaction with doctors	0.0	-0.65	-2.52	34	0.00
Satisfaction with nurses	-0.7	-1.8	-3.14	34	0.00
Satisfaction with chemotherapy	-0.02	-0.86	-2.73	34	0.00
Satisfaction with ambulatory services	0.0	-0.19	-1.41	34	0.00
Satisfaction overall	2.7	-0.51	-3.00	34	0.00
Mean score ^a	0.64	-0.69	-2.71	34	0.00

Note. ^aMean score reflecting the average of the following items: satisfaction with doctors, nurses, chemotherapy care, ambulatory services, and overall satisfaction.

Discussion

The participant group demographics in this study are representative of the overall cancer population with respect to age, employment status, and systems affected by cancer. According to the American Cancer Society (2016), the most common cancers expected in 2016 involve the breast, lung, and bronchus, which is consistent with the demographics of patients in this project. The significance of the previous exposure to cancer treatment is not clear. One perspective could be that the patients could have had a challenging or rewarding experience. There is the possibility for previous *recall* when considering their level of satisfaction in the oncology setting. One could speculate the potential of bias, especially if where they are receiving chemotherapy is the same facility versus arriving completely naive to the location where chemotherapy is being administered. The one-third of participants that resided alone raised some concern about

support needs at home that could affect overall patient satisfaction and requires further study. Certain cancers were not reflected in the population in this study, such as brain cancer. This may be due to oral chemotherapy being more commonly used and managed at home rather than in the outpatient chemotherapy area.

Domain, overall, and total satisfaction means in general reflected very good to excellent satisfaction levels among patients, indicating that satisfaction is not a substantial concern in this population. Why the most satisfaction experienced by the participants at baseline was with the nurses was unclear. It may be that the nurse is the one spending the most time with the participants or taking the most time to educate them, or it may have to do with nursing being one of the most trusted professions.

It was a surprise to me that all domain satisfaction scores and satisfaction scores for the chemotherapy care services domain was decreased after treatment for the entire group. The reasoning behind these results could be that the participants began to experience reality of the situation and possibly the information given did not match or they felt too overwhelmed or acutely ill by the whole cancer and chemotherapy experience. Fatigue may lead to a lowered capacity for tolerating normal issues that arise during care, such as the burden of paperwork during registration, time waiting for appointments, or procedures that are somewhat lengthy (Lis, Rodghier, Grutsch, & Gupta, 2009). In their research study, Lis et al. (2009) found fatigue negatively impacted patient satisfaction while receiving chemotherapy. Another reason could be that participants felt they were not in control of their situation, and the preparation they

received for the chemotherapy did not match or line up with what they were truly experiencing.

When comparing the groups, patient satisfaction was greater in those who received the TFU calls as compared to those who did not receive TFU calls (NoTFU) in each domain, as well as overall satisfaction and total mean satisfaction. This result suggests that the TFU calls contributed to overall patient satisfaction. These results support the importance of nurses changing their practices to meet the patient's needs, leading to better patient satisfaction with the use of TFU calls.

Implications for Practice and Areas for Future Research

One practice implication of this pilot project was the need to address “ambulatory issues” in order to positively affect patient satisfaction. Patient satisfaction not only indicates how well patients perceived they were treated, but also indicates other factors that indirectly affect persons while receiving their care. On some of the posttreatment responses, parking access was identified as an element contributing to dissatisfaction. By looking at individual domains, one can identify potential areas for improvement that may be considered beyond the direct care that influences overall satisfaction. Such an approach also supports the need for a multidisciplinary contribution to patient satisfaction.

Another implication for practice is the need to support the patient throughout his chemotherapy treatment as an approach to potentially improving outcome. Gupta, Rodeghier and Lis (2013) found a link between patient satisfaction and quality of care and their survivorship in non-small cell lung cancer. This suggests that patient

satisfaction with service quality is becoming an increasingly important tool for providers to demonstrate patient focus and differentiation in the healthcare community, as well as enhance patient experience.

A longitudinal patient satisfaction study could be considered. Instead of conducting it prechemotherapy and 72 hours' post chemotherapy, ongoing assessment at critical intervals could be added to determine how satisfaction changes over time. Thirty, 60 and 90 day intervals may be captured to determine a broader perspective, or at the planned beginning, middle and end of a chemotherapy regimen. This might also afford opportunity to evaluate responses to targeted interventions designed to improve satisfaction. This follow-up time frame is also one of the metrics that the institution currently follows, and addresses the significance of assessing patient satisfaction over time.

This project would be a good project to expand on a much larger scale. Instead of first time patients, all patients could be included, as it may be that patients experience more dissatisfaction over time that could be missed. The project could be set according to seasons, or even separate out to address a particular cancer disease. Another research potential project would be to conduct this study in the inpatient area, still using patient receiving chemotherapy for the first time. It may also be expanded to include family members, as they are often critical to success of the patient's overall treatment plan. Including family member's perspectives could provide a different direction of satisfaction. In this way, the impact of satisfaction is not on the patient only, but also includes family or significant others that may affect the continuum of care.

Recommendations for Unit Policy

Changing practices and creating new policy should always be supported by evidence-based practices. It is always important to gain the support of the nurses on the unit, but must be able to support why a particular change in practice could benefit patient satisfaction's scores. Getting nurses and other front-line staff actively involved in efforts to simultaneously improve hospital quality and increase efficiency will require action both within institutions and by those who measure their quality (Needleman & Hassilmmiller, 2009). This DNP project was conducted in response to an ambulatory outpatient oncology unit's desire to improve patient satisfaction ratings. This DNP project is a process improvement activity. As a DNP-prepared practitioner, I have been groomed to be a change agent and to assist and design programs, which are designed to improve and impact patient outcomes.

Strengths and Limitations

Strengths

The strength of this DNP project was a refreshing outcome for me. The participants were new and several were naïve to chemotherapy and nervous at the same time, but were open to receiving the follow-up telephone call and on occasion voiced they were waiting for the follow-up calls. Some participants stated they had questions about information provided and were waiting on the calls. One research article looked at the impact of a follow-up telephone call to patients who were diagnosed with colorectal cancer, looking at interventions to address post-operative care. This project looked at 25 patients and found their project yield a positive outcome from the participants. All

patients found TFU to be a positive experience and all stated a preference for continuing with TFU. Three main themes emerged from the patient interviews a) accessible and convenient care, b) personalized care, and c) relationship with the specialist nurse (Williamson, Chalmers, & Beaver, 2015). Other strengths of this project were that it helped to develop trust and team building between nurses and patients in the process. This interaction demonstrated the conceptual theory of goal attainment by King (1997). In this theory, there is the focus on interactions between the nurse and client and how it can impact outcomes, in this case patient satisfactions (Fewster-Thuente & Velsor-Friedrich, 2008). The strength here is the support and continuity of care that was provided to the patients beyond the clinic visits.

Limitations

The number of participants in this pilot study was limited, but participants were still able to provide valuable feedback and insight into their situation. Another limitation of this project was the time frame of the study. Conducting the questionnaire prior to and 72 hours after receiving the chemotherapy was a reasonable timeframe, but spreading out the questionnaires over a month time and then 2 months after that could yield different results. Maybe it would reveal a shift in the satisfaction levels of nurses vs. doctors, or a change in chemotherapy services satisfaction as they accommodate to the routine over time. Another limitation of this pilot project was the use of mailed-in patient questionnaires surveys. The returns may have been challenging to complete for the participant experiencing side effects of chemotherapy, and may have accounted for the

few responses of “5’s” across the board. The possibility of not receiving a returned survey was a concern to this researcher.

Another limitation was the emotional and social challenges of being diagnosed with cancer and the realization of starting the chemotherapy regimen. Mitchell (2006) looked at the social and emotional toll of receiving chemotherapy from their perspective. In this research study, the researcher had three goals, and one of them was looking at symptoms of social and emotional distress while going through the chemotherapy journal. The author identified eight themes, but the themes that were similar include need for normality, family/friends support, partner/spouse, and other cancer patients. Patients voiced they wanted their life back and or wonder after chemo will they be able to return their “pre-state.” In area of family/friend’s support, several patients lived alone and at times were responsible for everything on their own or family members felt a sense helpless as they were. According to Mitchell (2006), living with someone undergoing chemotherapy treatments was obviously cause of distress, and intensity of emotional, anxiety and the possibility of an unpredictable illness trajectory, often resulted in tension between participants and their partners/spouses. In relationship to other cancer patients the challenge could lie in comparing each other’s situation, chemotherapy and outcomes, If expectations do not match, emotional depression could set in. I found this article looked at a lot of elements that can impact patient’s satisfaction. The limitation in this case was not addressing or considering the potential effect on their emotional and social impact.

Summary

Patient satisfaction is not just a onetime interaction with or from health care providers. The health care community is constantly seeking ways to better meet their needs and to meet the unspoken views of care provided to patients leading to better satisfaction. The purpose of this project was to determine whether a different tool, a follow-up call, could positively impact patient satisfaction scores. The OUT-PATSAT 35 satisfaction questionnaire was used to capture patient's satisfaction rating. When caring for patients, it's important to make sure that we (the providers) are safe and competent and conscientious care providers. But the question remains of how satisfied was the patient when they left from receiving our care? This project was conducted in response to the patient satisfaction scores returning indicating low levels of satisfaction. The questions are how we would truly know if the care rendered is meeting patient's satisfaction and how can we measure their levels satisfaction effectively. Patient satisfaction is not a simple measurement but the impact of that measurement to health care facilities carries an important component to their financial stability as well. Satisfaction and its measurement are important for public policy analysts, healthcare managers, practitioners, and users, (Crow et. al, 2002). Patient satisfaction is a constant metric that hospitals follow closely. The concern is not just the results, but how to turn low results around is usually

Section 5: Dissemination Plan

I will disseminate this DNP project through a Microsoft Powerpoint presentation and in an abstract poster presentation as well. The goals of the presentations are to present the findings, share the outcome of the project, and improve patient satisfaction ratings. Dissemination is described as a planned process that involves consideration of target audiences and the settings in which research findings are to be received and, where appropriate, communicating and interacting with wider policy and health service audiences in ways that will facilitate research uptake in decision-making processes and practice, (Wilson, Petticrew, Calman, & Nazareth, 2010).

Dissemination to the Organization

I will disseminate my DNP project to the senior leadership at one of the Hematology–Oncology (HEM/ONC) section meetings. The feedback of the patient satisfaction scores will be given to the leadership in the HEM/ONC as well in my area. Presenting the findings to this group is an excellent starting point because they are key stakeholders. The data collected will be organized and presented in ways that make the data easy to use and understand for those involved in the decision-making process (Hodges & Videto, 2011).

Dissemination to the Nursing Organization

I will disseminate the DNP project and its findings to the nursing research committee at work. There is a monthly research presentation to the nursing community at work, and this may be a good venue to present this project and its results. This presentation is usually an hour long and the nurses are able to receive one continuous

educational unit credit for attending. Also, the nursing research committee sponsors a yearly research symposium and I expect to make a poster or podium presentation there.

Dissemination to Nursing Unit

My unit holds a monthly staff meeting, and I plan to present my DNP project and findings to my coworkers there. I will present to the group using a Microsoft Powerpoint presentation and will also prepare a handout to go along with the presentation. During the presentation, I will open the floor for questions from my coworkers on the materials I am presenting. After the presentation, I will supply the unit with a poster to promote a post presentation conversation amongst the unit. Posters have long been recognized as an effective medium for disseminating information, particularly with respect to evidence-based practice (Malocco, 2002). Presenting the poster allows all of the information to be presented in a well-organized manner (Malocco, 2002).

Analysis of Self

Completing this project and DNP program has prepared me to step outside of my “safe zone.” I now see processes, roles, and especially patient outcomes with a much more clear clinical and critical eye. I no longer settle for the excuse of “because that’s how we’ve always did or done something.” I encourage my nursing colleagues to envision more and to want more. Sometimes they have asked me what I am going to do upon completion of the program. At this time, I am currently looking at a job description of a nurse educator. The organization I currently work for does not have this role and I want to see if I can establish this role in my current ambulatory setting. In conducting this project, I found that patients were willing and open to receive the follow-up phone calls.

One patient who was in the control group, stated “I was hoping I was in the group that received the follow-up call.” Learning and going through all of the steps from IRB review (both at the hospital and university), writing up the consent form, to writing and revising my proposal and final project have taught me patience, guidance, critical thinking, and the importance of evidence-based approach to change current practice and thinking. According to Schriener et al. (2010), a true leader goes beyond maintaining the status quo to fostering an environment that encourages creativity, collegiality, vision, and risk taking.

As a Scholar

As a scholar, I naturally have a responsibility to stay current and relevant in my chosen nursing area and to provide guidance and feedback to clinical knowledge and advancements, all which will be related to improving nursing and patient outcomes. As a scholar, I will seek methods to integrate research evidence with clinical expertise and patient values, which means that the best available evidence will be combined with clinical judgment (Terry, 2012). Through this program, Walden University has provided me with several tools to enrich the nursing environment. I have gained the vision of becoming a better transformational DNP prepared nurse. The formation of clinical scholars with strong professional identities holds the key for educational transformation (Beal & Riley, 2015).

As a Project Manager

As a project manager, my role and goal is to influence others by utilizing my expertise to help influence others to be their best and help create a sense of commitment

to the project (McEwens & Willis, 2011). Before any project is initiated, identification of stakeholders is very important and instrumental to the project's success. The journey through this DNP project has supplied me with several tools to be able to become an effective change agent. According to Phillips and Simmonds (2013), project management is the process of planning, organizing, leading, and controlling resources to achieve specific goals.

As a project manager, I will present the information to the leadership group and nursing personnel. My role as a project manager is to present, in a clear and concise manner, the defining roles, and responsibilities of the project. The patient satisfaction score results presented and established a great opportunity to create a strategic direction to change the outcomes around patient satisfaction and align with the organizational platform and mission statement regarding the importance of the patient satisfaction results.

As a Practitioner

As a practitioner, I will work with the nursing staff and research and medical team. The DNP patient satisfaction project addresses patients receiving chemotherapy for the first time, but my goal is to transform this project into the standard of care for all patients receiving chemotherapy in the outpatient infusion setting. As a practitioner, one of my roles is to share findings and provide feedback from patients and family members to the nursing staff. The nurse practitioner uses the scientific process and national standards of care as a framework for managing patient care (American Association of

Nurse Practitioners, 2013). Lastly, as a practitioner, I must and will demonstrate the behavior that I am looking to be exhibited.

As a Professional

As a professional, my innate responsibility is to maintain and demonstrate the standards of nursing practice. As an oncology certified nurse, there are standards of professional behaviors and nursing expectation that are to be upheld and demonstrated in every nature of the oncology nurse. As a professional, my role or responsibility is to promote health changes and lead change. According to the Institute of Medicine (2010), the professional standards of nursing-profession are to “better prepare them to deliver patient-centered, equitable, safe, high-quality health care services; engage with physicians and other health care professionals to deliver efficient and effective care; and assume leadership roles in the redesign of the health care system” (p. 12). As a professional, learning is life-long and should never stop. According to the Oncology Nursing Society (2016), nurses must practice a commitment to lifelong learning. Lifelong learning refers to a variety of methods and takes place across multiple settings. As a professional, a nurse is required to stay current and to continue to grow to meet their ever change environment in the health care arena in order to meet the needs of those we serve. Lifelong learning enables oncology nurses to stay informed of scientific advances and research; lead and practice nursing research and evidence-based nursing; and attain and maintain competency in the specialty of oncology nursing to provide safe, effective, and quality care to patients with cancer and their caregivers, (Oncology Nursing Society, 2016).

Summary

It is important to share information gathered from a research project to the nursing staff seeking to implement a new practice to their current practice. Dissemination to the nursing staff can be done in several formats. Dissemination strategies aim to spread knowledge and the associated evidence-based interventions on a wide scale within or across geographic locations, practice settings, or social or other networks of end-users such as patients and health care providers (www.effectivehealthcare.ahrq.gov., p.3). Conducting this project has allowed me an opportunity for self-discovery. One of the greatest learning moments and expectation of a Walden nursing student is the importance of the use and implementation of evidence-based research and the presentation of its outcome.

References

- Al-Abri, R., & Al-Balushi, A. (2014). Patient satisfaction survey as a tool towards quality improvement. *Oman Medical Journal*, *29*(1), 3–7. DOI:10.5001/omj.2014.026
- American Association of Nurse Practitioners. (2013). Standards of practice for nurse practitioners. Retrieved from <https://www.aanp.org/images/documents/publications/standardsofpractice.pdf>
- American Cancer Society. (2016). Cancer facts and figures 2016. Retrieved from <https://www.cancer.gov/about-cancer/understanding/statistics>
- Arraras, J. I., Illarramendi, J. J., Viudez, A., Ibáñez, B., Lecumberri, M. J., de la Cruz, S., ... Vera, R., (2013). Determinants of patient satisfaction with care in a Spanish oncology day hospital and its relationship with quality of life. *Psycho-Oncology*, *22*(11), 2454–2461. DOI:10.1002/pon.3307
- Askew, D. A., Togni, S. J., Schluter, P. J., Rogers, L., Egert, S., Potter, N., ... Brown, A. D. H. (2016). Investigating the feasibility, acceptability and appropriateness of outreach case management in an urban Aboriginal and Torres Strait Islander primary health care service: a mixed methods exploratory study. *BMC Health Services Research*, *16*, 178. <http://doi.org.ezp.waldenulibrary.org/10.1186/s12913-016-1428-0>
- Banka, G., Edgington, S., Kyulo, N., Padilla, T., Mosley, V., Afsarmanesh, N., ... Ong, M. K. (2015). Improving patient satisfaction through physician education, feedback, and incentive. *Journal of Hospital Medicine*, *10*(8), 497–502. DOI 10.1002/jhm.23738

- Beal, J. A., & Riley, J. M., (2015). The development of a clinical nurse scholar in baccalaureate education. *Journal of Professional Nursing, 31* (5), 379–387.
- Beavers, K., Williamson, S., & Chalmers, K. (2010). Telephone follow-up after treatment for breast cancer: Views and experience of patients and specialist breast cancer nurses. *Journal of Clinical Nurses, 19*(19–20), 2616–2924. DOI:10.1111/j.1365-2702.2010.03197.x.
- Bergin, C. R., O'Malley, C. W., & Donahue, C. (2015). Tips for hospitalist to understand, promote patient satisfaction. Retrieved from: <http://www.the-hospitalist.org/article-tips-for-hospitalist-to-understand,-promote-patient-satisfaction/?singlepage=1>
- Bunn, F., Byrne, G., & Kendall, S., (2008). The telephone consultation and triage: Effects on health care use and patient satisfaction: A systematic review. *British Journal of General Practice. 55* (521). 956-961.
- Chakrabarti, AK., Sheetz, KH., Kataniva, NN., Singer, AL., Hewitt, WR., Hellman, RL...Mathur, AK., (2016). Do patient assessments of hospital quality correlate with kidney transplantation surgical outcome? *Transplantation Proceedings, 48* (6) 1986-1992.
- Clarke, P., & Milner, M. W. (2013). Post-discharge calls and improved satisfaction. Follow-up calls, other efforts improve patient experience, survey scores. *Healthcare Executive, 28*(3), 62, 64-65. Retrieved from www.researchgate.net.

- Colquitt, J. A., Baer, M. D., Long, D. M., & Halvorsen-Ganepola, M. K. (2014). Scale indicators of social exchange relationships: A comparison of relative content validity. *Journal of Applied Psychology, 99*(4), 599-618. DOI:10.1037/a0036374
- Crow, R., Gage, H., Hampson, S., Hart, J., Kimber, A., Storey, L., & Thomas, A., (2002). The measurement of satisfaction with healthcare: Implications for practice from a systematic review of the literature. *Health Technology Assessment, 6*(32). 1-244.
- Dudas, V., Bookwalter, T., Kerr, K. M., & Pantilat, S. Z. (2001). The impact of follow-up telephone calls to patients after hospitalization. *American Journal of Medicine, 111*(9Suppl), 226-230.
- Effective healthcare program (n,d,) (2012). Evidence-based practice centered systematic review protocol. Project Title: Communication and dissemination strategies to facilitate the use of health and health care evidence. Retrieved from www.effectivehealthcare.ahrq.gov.
- Faul, F., Erdfelder, E., Lang, A. E., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavioral Research Methods, 39* (2), 175-191.
- Fewster-Thuente, L., & Velsor-Friedrick, B., (2008). Interdisciplinary collaboration for healthcare professionals. *Nursing Quarterly Administration, 32*(1), 40-48.
- Fitzpatrick, R. (1991). Surveys of patient satisfaction: I--Important general considerations. *British Medical Journal, 302*(6781), 887-889.
- Flanner, M., Phillips, S. M., & Lyon, C.A. (2009). Examining telephone calls in ambulatory oncology. *Journal of Oncology Practice, 5*(2), 57-60.

- Grove, S. K, Burns, N., & Gray, J. R. (2013). *The practice of nursing research: Appraisal, synthesis, and generation of evidence* (7th ed.). St. Louis, MO: Saunders Elsevier.
- Gupta, D., Rodeghier, M., & Lis, C. G. (2013). Patient satisfaction with service quality in an oncology setting: Implications for prognosis in non-small cell lung cancer. *International Journal for Quality in Health Care*, 25(6), 696-703.
- Hafiji, J., Salmon, P., & Hussain, W. (2012). Patient satisfaction with post-operative telephone calls after Mohs micrographic surgery: A New Zealand and U.K. experience. *British Journal of Dermatology*, 167(3), 570-574.
DOI:10.1111/j.1365-2133.2012.11011.x
- Hall, M. A., Dugan, E., Zheng, B., & Mishra, A. K. (2001). Trust in physicians and medical institutions: What is it, can it be measured, and does it matter? *Milbank Quarterly*, 79(4), 613.
- Hodges, B. C., & Videto, D. M. (2011). *Assessment and planning in health programs* (2nd ed.). Sudbury, MA: Jones & Bartlett Learning.
- Holland, D. E., Knafl, G. J., & Bowles, K. H. (2013). Targeting hospitalized patients for early discharge planning intervention. *Journal of Clinical Nursing*, 22(0), 2696–2703. DOI:10.1111/j.1365-2702.2012.04221.x
- HCAHPS: Patient perspective of care survey, Hospital Consumer Assessment of Healthcare Provider and System. (2014). Retrieved from:
<http://www.hcahpsonline.org/home.aspx>

- Imogene King-Nursing theory, (n.d.) (2016) Retrieved from <http://nursing-theory.org/nursing-theorists/Imogene-King.php>
- Kelly, D. L. (2011). *Applying quality management in healthcare: A systems approach* (3rd ed.). Chicago, IL: Health Administration Press.
- Khowaja, K., (2006). Utilization of King's interacting systems framework and theory of goal attainment with new multidisciplinary model: Clinical pathway. *Australian Journal of Advanced Nursing*, 24(2). 44-50
- Kimman, M. L., Bloebaum, M. M. F., Dirksen, C. D., Houben, R. M. A., Lambin, P., & Boersma, L. J. (2010). Patient satisfaction with nurse-led telephone follow-up after curative treatment for breast cancer. *BioMed Cancer*, 10(1),1.
- King, I. M. (1997). King's theory of goal attainment in practice. *Nursing Science Quarterly*, 10(4), 180-185.
- Kristsonis, A., (2004). Comparison of change theories. *International Journal of Scholarly Academic Intellectual Diversity*, 8(1), 1-7.
- Lewin, K. (1939). Field theory and experiment in social psychology: Concepts and methods. *American Journal of Sociology*, 44(6). 68-896.
- Lewin, K. (1947a). Frontier change theory in group dynamics: Concept, method and reality in social science: Social equilibria and social change. *Human Relations*, 1(5), 5-40. DOI:10.1177/001872674700100.103.
- Lewin, K. (1947b). Frontiers in group dynamics II. Channels of group life: social planning and action research. *Human Relations*, 1(2), 143-153.

- Li, X., Zhang, H., Wang, J., Li, F., Chen, J., & Chen, J. (2014) Assessing patient satisfaction with medication-related services in hospital settings: A cross-sectional questionnaire survey in China. *International Journal of Clinical Pharmacology and Therapeutics*, 52(7). 587-597. DOI:10.5414/cp202016.
- Lis, C. G., Rodeghier, M., Grutsch, J. F., & Gupta, D. (2009). Distribution and determinants of patient satisfaction in oncology with a focus on health-related quality of life. *BMC Health Services Research*, 9(190). 287-304. DOI:10.1186/1472-6963-9-190.
- Long, L. (2012). Impressing patients while improving HCAHPS. *Nursing Management*, 43(12), 33-37. DOI:10.1097./01.numa.0000422891.99334.68
- Lopez, C., Valenzuela, J. I., Calderon, J. E., Velasco, A. F., & Fajardo, R. (2011). A telephone survey of patient satisfaction with telemedicine in a rural community in Columbia. *Journal of Telemedicine and Telecare*, 17, 83-87.
- Lynch, P. M., Marcome, D., & King, J. (2010). Chemotherapy follow-up in older adults: Results of a quality improvement project. *Clinical Journal of Oncology Nursing*, 14(5), 619-625. DOI:10.1188/10.cjon.619-625.
- Mahon, P.Y., (1996). An analysis of the concept "patient satisfaction" as it relates to contemporary nursing care. *Journal of Advanced Nursing*. 24(6) 1241-1248
- McEwen, M., & Wills, E.M. (2011). *Theoretical basis for nursing* (3rd ed.). Philadelphia, PA: Lippincott Williams & Wilkins.
- Mitchell, G. (2013). Selecting the best theory to implement planned change. *Nursing Management - UK*, 20(1), 32-37.

- Mitchell, T. (2007). The social and emotional toll of chemotherapy-patients' perspective. *European Journal of Cancer Care*, 16, 39-47.
- Montes, J.M., Maurino, J., Diez T., & Saiz-Ruiz, J., (2010). Telephone-based nursing strategy to improve adherence to antipsychotic treatment in schizophrenia: A controlled trial. *International Journal of Psychiatric Clinical Practice*. 14(4), 274-281.
- Moore, P. M. (2014). Communication skills training for healthcare professionals working with people who have cancer. *Cochrane Database of Systematic Reviews*, 3 (CD003751). 1-101. DOI:10.1002/14651858.CD003751.pub3
- Morrison, M. (2014). Kurt Lewin, three step change theory model-unfreeze, change, and freeze. Retrieved from <http://www.Rapidbo.com/KurtLewinthree-step-change-theory/#zvh3ekzqbw>.
- Murphy, M. (2014). HCAHPS: The true impact of patient satisfaction. Retrieved from <http://www.scribeamerica.com/.../hcahps-true-impact-patient-satisfaction/>
- Needleman, J., & Hassmiller, S. (2009). The role of nurses in improving hospital quality and efficiency: real-world results. *Health Affairs*, 28(4), w625-w633.
- Nettina, S. M. (2014). *Lippincott manual of nursing practice* (10th ed.). Philadelphia, PA: Wolters Kluwer/Lippincott Williams & Wilkins.
- Nguyen, T. F., Anota, A., Brédart, A., Monnier, A., Bosset, J., & Mercier, M. (2014). A longitudinal analysis of patient satisfaction with care and quality of life in ambulatory oncology based on the OUT-PATSAT35 questionnaire. *BMC Cancer*, 14(1), 42. DOI:10.1186/1471-2407-14-42

- Nguyen, T. F., Bosset, J., Monnier, A., Fournier, J., Perrin, V., Baumann, C., Bredart, A., ...Mercier, M. (2011). Determinants of patient satisfaction in ambulatory oncology: a cross sectional study based on the OUT-PATSAT35 questionnaire. *BMC Cancer, 11*, 526.
- Noest, S., Ludt, S., Klingenberg, A., Glassen, K., Heiss, F., Ose, D., ... & Szecsenyi, J. (2014). Involving patients in detecting quality gaps in a fragmented health care system: Development of a questionnaire for patient's experiences across health care sectors. *International Journal for Quality in Health Care, 26*(3), 240-249. DOI:10.1093/intqhc/mzu044.
- Oncology Nursing Society. (2016). Lifelong learning for professional oncology nurse. Retrieve from: <https://www.ons.org/advocacy-policy/positions/education/lifelong>
- Panouilleres, M., Anot, A., Nguyen, T. V., Bredart, A., Bosset, J.F., Monnier, A., ... Hardouin, J. B. (2014). Evaluation properties of the French version of the OUT-PATSAT35 satisfaction with care questionnaire according to classical and item response theory analyses. *Quality Life Research, 23*, 2089-2101. DOI:10.1007/s11136-014-0658-z.
- Petrullo, K. A., Larmar, S., Nwankwo-Otti, O., Alexander-Mills, K., & Viola, D. (2012). The patient satisfaction survey: What does it mean to your bottom line. *Journal of Hospital Administration, 2*(2). 1-8. DOI:10.5430/jhav2n2pl.
- Phillips, J., & Simmonds, L., (2013) Change management tools part 2: Managing clinical improvement projects. *Nursing Times, 109*(16), 20-22.

- Piette, J. D., Weinberger, M., & McPhee, S. J. (2000). The effect of automated calls with telephone nurse follow-up on patient-centered outcomes of diabetes care: A randomized, controlled trial. *Medical Care*, 38(2), 218-230.
- Prakash, B. (2010). Patient satisfaction. *Journal of Cutaneous and Aesthetic Surgery*, 3(3), 151–155. DOI:10.4103/0974-2077.74491
- Redfern, S., & Christian, S. (2003). Achieving change in health care practice. *Journal of Evaluation in Clinical Practice*, 9(2), 225-238.
- Rolfe, A. (2014). Interventions for improving patients' trust in doctors and groups of doctors. *Cochrane Database of Systematic Reviews*, 3(CD004134), 1-66.
DOI:10.1002/14651858.CD004134.pub3
- Schriner, C., Deckelman, S., Kubat, M. A., Lenkay, J., Nims, L., & Sullivan, D. (2010). Collaboration of nursing faculty and college administration in creating organizational change. *Nursing Education Perspectives*, 31(60), 381-386.
- Shirey, M. R. (2013). Lewin's theory of planned change as a strategic resource. *Journal of Nursing Administration*, 43(2), 69-72. doi:10.1097/nna.06013e31827f20a9.
- Sullivan, T. (2011, February 7). Institute of Medicine report: The future of nursing: Leading change, advancing health. Retrieved from:
<http://www.policymed.com/2011/02/institute-of-medicine-report-the-future-of-nursing-leading-change-advancing-health-.html>
- Terry, A. J. (2012). *Clinical research for the doctor of nursing practice*. Burlington, MA: Jones & Bartlett Learning.

- Terry, A. J. (2015). *Clinical research for the doctor of nursing practice* (2nd ed.). Burlington, MA: Jones & Bartlett Learning.
- Tzeng, H. M., Ketefian, S., & Redman, R. W. (2002). Relationship of nurses' assessment of organizational culture, job satisfaction, and patient satisfaction with nursing care. *International Journal of Nursing Studies*, 39(1), 79-84.
- White, K. M., & Dudley-Brown, S. (2012). *Translation of evidence into nursing and health care practice*. New York, NY: Springer.
- Williams, B. Coyle, J. & Healy, D., (1998). The meaning of patient satisfaction: An explanation of high reported levels. *Social Science & Medicine*. 47 (9). 1951-1359.
- Williamson, S., Chalmers, K., & Beaver, L. (2015). Patient experiences of nurse-led telephone follow-up following for colonrectal cancer. *European Journal of Oncology Nursing*, 19(3), 237-243. doi:10.1016/j.ejon.2014.11.006.
- Wilson, P. M., Petticrew, M., Calnan, M. W., & Nazareth, I. (2010). Disseminating research findings: What should researchers do? A systematic scoping review of conceptual frameworks. *Implementation Science: IS*, 5, 91. doi:10.1186/1748-5908-5-91
- Zaccagnini, M. E., & White, K. W. (2011). *The doctor of nursing practice essentials: A new model for advanced practice nursing*. Sudbury, MA: Jones and Bartlett Publishers.
- Zindani, N. (1996). Pakistani nurse's vision for change. *International Nursing Review*, 43(3), 85-94.

Appendix A: Follow-Up Telephone Script

The follow-up telephone call is to provide on-going support and maintain contact. The conversation will follow the framework of the after visit summary that is given to patients upon discharged from the hospital.

Good morning, afternoon or evening, Mr/Mrs./Miss: _____

My name is Victoria Frazier-Warmack, a nurse from the University of Chicago Hospitals. I met you prior to the start of your treatment and I am calling you in follow up because you have been randomized to receive a follow up call. Do you mind if I ask you a few questions and if this is a good time to talk? I am conducting a follow-up telephone call to address any concerns or challenges you may or may not have experienced. I want to ask you some questions about how your experience was in receiving your chemotherapy during your visit here in the Chemotherapy Infusion Area. I would like to find out what went well or did not go as you had expected.

I'm checking in because it has been a few days since you went home and I wanted to see how you are doing. How are you feeling?

I'd also like to ask you a few questions about your care and after care.

- Were you able to get your prescriptions filled?
- Are you taking your medication(s) as your doctor ordered?
- Do you have any questions about your medications?
- Do you have any questions on the discharge instructions you received?
- Did you make your follow-up appointments (if the hospital did not do this before discharge)?
- Is there any reason you might not be able to keep your follow-up appointments?
- Do you have any questions about your care?
- Do you know which symptoms to watch for that would mean you would need to call your doctor right away?
- Do you feel the comfort and support you received was appropriate or could more have been done?
- Do you have any concerns or comments about the way you were welcomed upon arrival?
- Was the promptness appropriate in answering your questions?
- Any questions or problems that may come up, do you know how or who to contact at the hospitals?

From the information provided, if any referring is needed will contact the appropriate personnel.

Appendix B: Participant Demographic

PARTICIPATION DEMOGRAPHICS**SUBJECT ID:** _____**DATE:** _____

AGE IN YEARS: ____

GENDER: MALE: ____ FEMALE: ____ OTHER: ____

MARITAL STATUS: SINGLE: ____ MARRIED: ____ DIVORCED: ____

WIDOWED: ____ OTHER: _____

LIVING STATUS: ALONE: _____ WITH FAMILY: _____

OTHER: _____

EMPLOYMENT STATUS: EMPLOYED AND WORKING: _____

EMPLOYED BUT ON DISABILITY: ____ RETIRED: ____

UNEMPLOYED: _____ OTHER: _____

HIGHEST EDUCATIONAL LEVEL: GRADE SCHOOL: ____ HIGH

SCHOOL: ____ COLLEGE: _____

PREVIOUS EXPERIENCE WITH ANY CANCER TREATMENT: YES: ____

NO: ____

SYSTEM AFFECTED BY CANCER: BLOOD/BONE MARROW/LYMPH: ____

BREAST: ____ BRAIN: ____ LUNG: ____ HEAD/NECK: ____ GI: ____ GU: ____

GYNE ____ SKIN: ____ OTHER:

Appendix C: OUT PATSAT35 Satisfaction Questionnaire

OUT-PATSAT35

We are interested in some things about you and your experience of the care received during your Ambulatory visit and Chemotherapy treatment in this day hospital. Please answer all the questions yourself by circling the number that best applies to you. There are no 'right' or 'wrong' answers. The information that you provide will remain strictly confidential.

	During your ambulatory in this day hospital, how would you rate <i>doctors</i>, in terms of :	Poor	Fair	Good	Very good	Excellent
1	Their knowledge and experience of your illness?	1	2	3	4	5
2	The treatment and medical follow-up they provided?	1	2	3	4	5
3	The attention they paid to your physical problems?	1	2	3	4	5
4	Their willingness to listen to all of your concerns?	1	2	3	4	5
5	The interest they showed in you personally?	1	2	3	4	5
6	The comfort and support they gave you?	1	2	3	4	5
7	The information they gave you about your illness?	1	2	3	4	5
8	The information they gave you about your medical tests?	1	2	3	4	5
9	The information they gave you about your treatment?	1	2	3	4	5
10	Their punctuality at the consultation?	1	2	3	4	5
11	The time they devoted to you during their consultations?	1	2	3	4	5
	During your chemotherapy treatment in this day hospital, how would you rate <i>the nurses</i> in terms of :	Poor	Fair	Good	Very good	Excellent
12	The way they welcomed you for the treatment?	1	2	3	4	5
13	The way they handled your treatment	1	2	3	4	5
14	The attention they paid to your	1	2	3	4	5

	physical comfort?					
15	The interest they showed in you personally?	1	2	3	4	5
16	The comfort and support they gave you?	1	2	3	4	5
17	Their human qualities (politeness, respect, sensitivity, kindness, patience,...)?	1	2	3	4	5
18	The information they gave you about your medical tests?	1	2	3	4	5
19	The information they gave you about your care?	1	2	3	4	5
20	The information they gave you about your treatment?	1	2	3	4	5
21	Their promptness in answering your specific requests?	1	2	3	4	5
22	The time they devoted to you?	1	2	3	4	5
	During your chemotherapy treatment in this day hospital, how would you rate <i>services and care organization</i>, in terms of :	Poor	Fair	Good	Very good	Excellent
23	The ease of identifying the doctor responsible for your care?	1	2	3	4	5
24	The exchange of information between caregivers?	1	2	3	4	5
25	The exchange of information with extra-mural services (general practitioner, home care, rest house...)?	1	2	3	4	5
26	The kindness and helpfulness of the technical, reception, and other personnel, (medical assistant),...?	1	2	3	4	5
27	The information provided on the organization of medical tests, treatment or care?	1	2	3	4	5
28	The information provided on the overall services available (social, psychological, nutritional services...)?	1	2	3	4	5
	During your ambulatory visit in this day hospital, how would you rate <i>services and care organization</i>, in terms of :	Poor	Fair	Good	Very good	Excellent

29	The ease of reaching the service by telephone?	1	2	3	4	5
30	The waiting time before obtaining a medical consultation appointment?	1	2	3	4	5
31	The speed of implementing medical tests and/or treatments?	1	2	3	4	5
32	The ease of access (parking, means of transport...)?	1	2	3	4	5
33	The ease of finding one's way to the different departments?	1	2	3	4	5
34	The environment of the building (cleanness, spaciousness, calmness...)?	1	2	3	4	5
Overall,						
35	How would you rate the care received during your ambulatory visit and chemotherapy treatment in this day hospital?	1	2	3	4	5

(Panouilleres, M., Anota, A., Nguyen, T. V., Bredart, A., Bosset, J.F., Monnier, A.,... Hardouin, J. B.

(2014). Evaluation properties of the French version of the OUT-PATSAT35 satisfaction with care questionnaire according to classical and item response theory analyses. *Quality Life Research*, 23, 2089-2101. DOI:10.1007/s11136-014-0658-z.)

Appendix D: Permission for use of Questionnaire

On Sunday, June 14, 2015 9:36 AM, "XXXXXXXXXX" <XXXXXXXXXX> wrote:

I give you permission to use that questionnaire referring to the publications related to that questionnaire:

Poinsot R, Altmeyer A, Conroy T, Savignoni A, Asselain B, Leonard I, Marx E, Cosquer M, Sevellec M, Gledhill J, Rodary C, Mercier M, Dickes P, Fabbro M, Antoine P, Guerif S, Schraub S, Dolbeault S, Bredart A (2006) [Multisite validation study of questionnaire assessing out-patient satisfaction with care questionnaire in ambulatory chemotherapy or radiotherapy treatment]. *Bull Cancer* **93**: 315-27

Panouilleres M, Anota A, Nguyen TV, Bredart A, Bosset JF, Monnier A, Mercier M, Hardouin JB (2014) Evaluation properties of the French version of the OUT-PATSAT35 satisfaction with care questionnaire according to classical and item response theory analyses. *Qual Life Res*

Arraras JJ, Illarramendi JJ, Viudez A, Lecumberri MJ, de la Cruz S, Hernandez B, Zarandona U, Bredart A, Martinez M, Salgado E, Lainez N, Vera R (2012) The cancer outpatient satisfaction with care questionnaire for chemotherapy, OUT-PATSAT35 CT: a validation study for Spanish patients. *Support Care Cancer* **20**: 3269-78

Best regards,
Anne Brédart

-----< XXXXXXXXXXX > a écrit : -----

A : "XXXXXXXXXX" <XXXXXXXXXX>

De : <XXXXXXXXXX>

Date : 14/06/2015 05:56

Objet : Re: Patient satisfaction questionnaire