

Effects of a Telephone Follow-Up Call on Patient Satisfaction in the Emergency Department

Kathryn McCary, Cynthia Hestermann, and Abby Richardson

Creighton University

## Abstract

**Problem:** Patient satisfaction has been identified as a key element of success in a competitive healthcare market, being used as an indicator of quality care as well as reimbursement incentives. Emergency Departments (ED) can have an important impact on patient satisfaction, as the ED can be the initial hospital contact for many patients. The problem identified for this project is the need for high patient satisfaction in the ED setting. **Purpose:** To determine the effectiveness of a telephone follow up call (TFC) on patient satisfaction. **Methods:** This study was conducted at two EDs within a multi-hospital, non-profit system. Sampled patients received a follow up call from a trained registered nurse within 72 hours of discharge, based on previously established hospital protocol. The sample inclusion criteria consisted of: (1) a patient in the ED of one of two study hospitals, (2) an adult over 19 years of age correlating with Nebraska state law, (3) English speaking, (4) access to a working telephone, and (5) verbal consent to participate in the study. Patients were asked to participate in a satisfaction survey following the initial follow-up call. Participants were asked 3 questions for the survey and demographically categorized by gender and age. **Results:** One hundred three patients were included in the study. Of these patients, 68.9% were female, 31.1% were male. Twenty-two point 3 percent of the patients contacted were between 19-29 years old, 19.4% of the patients were between 30-39 years old, 13.6% of the patients were between 40-49 years old, 15.5% of the patients were between 50-59 years old, 9.7% of the total patients were between 60-69 years old, 9.7% of the patients were between 70-79 years old, and 9.7% of the patients were over the age of 80. Ninety-nine percent agreed or strongly agreed that their additional questions or concerns were satisfactorily addressed, 87.3% agreed or strongly agreed their understanding of discharge instructions improved, and 97.1% agreed or strongly agreed that their overall satisfaction of the ED visit improved with the TFC. **Conclusion:** This study revealed that the use of a TFC is a cost effective way to improve patient satisfaction in the ED. This study was limited by a small sample size implicating the need for future studies to determine if a larger sample size would elicit the same results, or establish that a TFC is not a successful way to maintain high patient satisfaction for EDs.

*Keywords:* patient satisfaction, emergency department, telephone follow-up calls

## Effects of a Telephone Follow-Up Call on Patient Satisfaction in the Emergency Department

### **Introduction**

#### **Background**

Patient satisfaction has become a key component of success in a competitive healthcare market. It can be used to measure a variety of quality care indicators as well as financial reimbursement incentives. Health care institutions strive to find ways to maintain high patient satisfaction in all aspects of the system, with all providers (physicians, physician assistants, and nurse practitioners) including Emergency Departments (ED), as this is a main point of contact for many patients. As the phenomenon of patient satisfaction continues to evolve, it has proven to be a vital indicator of quality care in increasingly competitive healthcare delivery systems (Wagner & Bear, 2008).

Patient satisfaction has long been related to nursing care as nurses are considered one of the primary contacts most patients have while in the health care system. Kutney-Lee et al. (2009) point out that patient satisfaction has been measured in the nursing profession for some time, but many hospitals did not look at this until it became linked to payment incentives. Past research studies have correlated patient satisfaction to nursing factors such as nurse staffing levels, nurse-physician collaboration, and the nurse work environment (Kutney-Lee et al., 2009). These measures have helped determine a variety of nursing implementations such as nurse staffing ratios, multi-disciplinary communication, and patient education. As more nurse practitioners (NP) enter the mix of providing care, patient satisfaction extends into this arena by examining satisfaction with communication and patient-provider interaction.

Defining the idea of patient satisfaction has been debated for some time. In order to use this idea for evaluating quality of care and payment incentives, patient satisfaction needs to be a

measurable concept. Sitzia and Wood (1997) highlight numerous theories that specify what may make up patient satisfaction. A general consensus found that patient satisfaction primarily comes from different aspects of care such as patient expectations of care and interactions with caregivers, as well as patient characteristics such as gender, marital status, and social class. Hospitals can use these theories to help identify effective ways to improve patient satisfaction scores and maintain them. It is important for EDs to identify cost-effective ways to maintain high patient satisfaction. Various ideas have been mentioned such as decreased wait times, increased patient education, and hourly patient rounding. Expanding the research on telephone follow-up calls may help EDs evaluate whether this is a cost-effective way to maintain patient satisfaction.

### **Significance**

It has been identified patient satisfaction is related to numerous standards of hospital care. In the context of nursing, it helps direct quality of care by developing standards as well as improving protocols such as staffing and nurse-patient ratios. Evaluating patient satisfaction has assisted in determining areas to enhance, for example, interaction, communication, and education. As a primary point of contact in the patient's health care experience, nursing standards and protocols are often a central point to improving patient satisfaction. The evaluation of satisfaction can be generalized to a variety of nursing units when identifying common points of interest such as staffing, interaction, and education.

Even though satisfaction has been addressed in nursing for years, hospitals have more reasons to evaluate patient approval. Reimbursement incentives have directed providers to increase and maintain patient satisfaction. According to Bowser (2011), patient satisfaction surveys will account for 30% of the new Medicare payment formula, and adherence to quality

outcome measures will account for 70% of the new Medicare payment formula. Hospitals will face a 1% across the board reduction of Medicare payments in 2013, which is set to increase to 2% in 2017 (Gold, Moffa, & Eitel, 2012). The withheld funds will be redistributed to hospitals exceeding expectations based on quality standards and HCAHPs surveys. This new reimbursement strategy is a driving force encouraging organizations to look for new ways to increase quality of care that will improve and maintain high patient satisfaction scores.

All providers in the ED setting have an impact on patient satisfaction. The contact made by Emergency Medical Services (EMS), the triage nurse, primary nurse, nurse practitioner, physician's assistant, physician and auxiliary personnel all have the potential to positively or negatively affect a patient's experience (Aragon & Gesell, 2003). The idea that every potential interaction a patient has with hospital staff may affect satisfaction keeps hospitals searching for ways that different departments can maintain high patient approval.

### **Problem and Purpose of Research**

The problem identified for this project is the need for high patient satisfaction in the Emergency Department (ED) setting. The purpose of this MSN scholarly project is to assess patient satisfaction with a telephone follow up call (TFC), while the goal of this research study is to answer the question: can a TFU call positively affect patient satisfaction?

### **Literature Review**

Quality of care is the driving force behind improving patient satisfaction. The Institute of Medicine has defined 6 domains of quality of care: safe, timely, effective, efficient, equitable and patient centered (Welch, Asplin, Stone-Griffith, Davidson, Augustine, & Schuur, 2010).

Continuity of care can be enhanced by providing adequate patient-centered, safe, efficient, and effective patient follow up. The majority of preventable complications in patients occur within

the first few weeks after being discharged from the hospital (Hastings & Heflin, 2005; Mistiaen & Poot, 2008; Stolic, Mitchell, & Wollin, 2010).

Research has been conducted to explore the effects a TFC has on psychosocial, physical and other consumer-related health outcomes. This research will be reviewed in an effort to illustrate what is known about TFC and patient satisfaction. The literature review was conducted using PubMed and Ebscohost. Key words identified for the literature search were follow-up calls, patient satisfaction and ED. The literature review will discuss background on TFC, the emergency department and patient satisfaction, themes impacting patient experience in the emergency department, studies supporting the use of TFC to increase patient satisfaction, and studies showing no improvement in satisfaction with a TFC. The literature review will additionally provide information on related topics including telephone care management and patient-centered approaches.

### **Background on Follow-up Calls**

In-patient hospitals frequently use TFC to ensure patients' understanding of discharge instructions and to offer further teaching. A TFC is a valid method for obtaining information, providing education and consultation, supporting patients in symptom management, providing reassurance, and assisting in the early recognition of complications post discharge (Mistiaen & Poot, 2006). The concept of offering further assistance to patients after discharge conveys a feeling of personalized care and can be easily adapted to patients seen in the ED for acute issues.

A TFC provides an opportunity to evaluate the patient's understanding of education materials, identify prospective areas for practice improvement, enhance the quality of patient care, determine patients' adherence to discharge instructions, and evaluate patients' overall perception of hospital performance (Meade & Studor, n.d.). Additionally, TFCs have been

proven to be an economical method to achieve these objectives. However, despite previous research demonstrating TFCs as an effective means to improve patient satisfaction, many hospitals still do not utilize TFCs for patient follow up.

### **The Emergency Department and Patient Satisfaction**

Because the ED is considered to be the front door of most hospitals, it is imperative that patients are satisfied with their ED experience (Gold, Moffa, & Eitel, 2012). Performance improvement methods are frequently analyzed to improve processes and patient satisfaction in EDs. Boudreaux, Cruz, and Baumann (2006) reviewed 19 articles studying interventions in the ED to improve patient satisfaction. The review concluded that there is modest evidence to support process improvement strategies to enhance ED patient satisfaction (Boudreaux et al., 2006). Baker and McGowan (2010) discuss some high-performing EDs currently utilizing TFCs. Some of the positive outcomes identified in these EDs utilizing TFCs include: higher patient satisfaction, better understanding of discharge instructions, lower readmission rates, greater patient loyalty, less patient complaints, and higher employee engagement (Baker & McGowan, 2010). Increasing the amount of research and awareness could lead to more EDs adopting a standardized formulation for TFCs which could improve overall outcomes and satisfaction for all patients. In spite of research which has been done, more research needs to be conducted, looking at TFCs in the ED, specifically. Research performed on this topic could enrich understanding of the effects of TFCs, enhance knowledge available to clinicians, and encourage practice changes to positively impact patient experience and satisfaction.

### **Themes Impacting Patient Experience in the Emergency Department**

A literature review conducted by Nairn, Whotton, Marshal, Roberts, Swann, and Dip (2004) identified six themes affecting patient experience: wait times, communication, cultural

aspects of care, pain, the environment, and difficulties in describing the multidimensional experience of the patient. Holden and Smart (1999) suggested that increased wait times are the most important cause of decreased patient satisfaction, ranked higher than the caring attitude of the staff. Lin and Lin (2011) identified patient's perception of privacy to be a key predictor in patient satisfaction. Boudreaux and O'Hea (2004) identified four statistically significant predictors of patient satisfaction, including; interpersonal interactions with providers, perceptions of provider technical skills, wait times, and acuity. Boudreaux and O'Hea (2004) recognized interpersonal interactions with providers to be the domain most strongly associated with overall satisfaction; replicated most frequently and imperatively defined by expressive quality and information delivery. Research on information delivery remains suggestive as available studies suffer from significant methodological weakness.

### **Studies supporting the use of TFC to increase patient satisfaction**

Dudas, Bookwaler, Kerr, and Pantilat (2001) assessed overall patient satisfaction in patients receiving a pharmacist follow-up call within 2 days of hospital discharge and found a significantly higher patient satisfaction rate in the group receiving the TFC (86% vs. 61% very satisfied,  $P=0.007$ ). The study asked patients if they had obtained their medications and if they understood how to take them. The statistical increase in satisfaction directly correlated with the intervention; patients receiving the follow-up call were more satisfied with their discharge medication instructions. In addition, the TFC allowed the pharmacists to identify and resolve medication-related problems for 19% of patients contacted and 15% of patients reported new medical problems requiring evaluation from the medical team (Dudas, Bookwaler, Kerr, and Pantilat, 2001).

Fallis and Scurrah (2001) assessed the use of the TFC in patients receiving outpatient laparoscopic cholecystectomy and reported a significantly higher mean satisfaction rate in patients receiving the intervention. Gray, Sut, Badger, and Harvey (2010) demonstrated high patient satisfaction with TFC in patients who had undergone outpatient surgical procedures including hernia repairs, cholecystectomies, appendectomies, varicose vein removal, subcutaneous lesion excisions, carpal tunnel releases, and circumcisions. Of the 1,177 patients contacted after the TFC, all patients were found to be satisfied with the TFC intervention (Gray et al., 2010). Rosbe, Jones, Sharukh, and Bray (2000) utilized TFC to assess patients after adenotonsillectomy and found 96% of patients were satisfied with the TFC and did not want a follow-up office visit. Setia and Meade (2009) looked at the value of discharge telephone calls together with leader rounding to determine outcomes associated with patient satisfaction. Combining these two efforts revealed a significant impact on patient satisfaction with survey data showing the level of patient satisfaction for the patients receiving these interventions was greater than the current 99<sup>th</sup> percentile score for several indicators (Setia & Meade, 2009).

These studies illustrate patients were not only satisfied with the TFC as an intervention, but additional significant benefits were identified. Patients requiring further education and evaluations were directed and treated appropriately allowing the initial intervention to expand beyond increasing satisfaction and allowing for enhanced safety and effectiveness. These supplementary benefits contribute to patient centered quality care and allow for a cyclical increase in overall patient satisfaction.

### **Studies showing no improvement in satisfaction with a TFC**

In contrast to studies showing increased patient satisfaction with TFCs, several studies have showed no statistical difference in satisfaction with a TFC (e.g. Al-Asseri, Achi, &

Greenwood, 2001; Jerant, Azari, Martiniez, & Nesbitt, 2001; Tranmer & Parry, 2004; Weaver & Doran, 2001; Barnason & Zimmerman, 1995; Gombeski et al., 1993). Al-Asseri et al. (2001) assessed satisfaction among a variety of outcomes with a pharmacist TFC which provided information on medication concerns; however, primary data was unavailable for evaluation (Mistiaen & Poot, 2006). Jerant, Azari, Martinez, and Nesbitt (2001) conducted a study to compare three different modalities of follow up including TFC to reduce readmission charges in congestive heart failure patients. This study stated there was no significant difference between the intervention and control group in patient satisfaction scores; however, TFC did not adversely affect patient satisfaction. This study did find a statistically significant decrease in ED visits in patients receiving a TFC. Tranmer and Perry (2004) utilized TFCs by an advanced practice nurse in post-operative cardiac surgery patients and although the authors' state there was higher satisfaction with post-discharge care and all recovery-item scores, the differences were not statistically significant. Weaver and Doran (2001) also assessed TFC in post-operative cardiac surgery patients utilizing a step-down nurse and showed no statistically significant difference in patient satisfaction between the intervention and control group; however, primary data was unavailable for analysis. Gombeski et al. (1993) evaluated TFC in patients discharged from a hospital setting and stated although no statistically significant differences in satisfaction were found, there were positive results in the experimental group.

Although the findings of these studies did not support a connection between TFC and patient satisfaction, the positive effects found relating to TFC demand further inquiry into the inclusive effects which TFC can have on patient outcomes and patient centered care. The discrepancy in study findings also illustrates a need for increased research to further evaluate the effectiveness of TFC on patient satisfaction.

### **Telephone Care Management**

Phone interventions may need to extend beyond a one-time follow up call in some cases. A randomized trial conducted by Wennberg, Marr, Lang, and O'Malley (2010) illustrated enhanced telephone care management to be an effective approach in reducing hospitalizations and medical costs over a 12 month period. In addition to enhancing patient satisfaction, telephone care management decreases ED visits and enhances the patient-centered approach in the treatment of patients with chronic disease (Wennberg et al., 2010). The expansion of research on telephone care management to assist in the management of chronic disease may further support these findings and continue to contribute to decreased ED use and increased patient satisfaction.

While studies conducted regarding TFCs have revealed varying findings regarding the effectivity of TFCs on patient satisfaction, the common finding among all of the studies reviewed is that there were no findings associating TFCs with a negative impact on patient satisfaction.

### **Patient Centered Approaches**

Vescio, Donahoe, Gentile, Sewickley, and Pittsburgh (1999) described one hospital's experience with improving satisfaction of patients admitted from the ED through enhancing staff customer satisfaction skills, decreasing the time it takes from arrival to admission, and an overall shift to a more patient-centered approach to care. Lateef (2011) identified patient-centered care to encompass a respect for patients' values, preferences, expressed needs, communication, information, education, and the inclusion of the patient in the coordination of their own care. TFCs would facilitate a movement toward a patient-centered approach in the ED setting by

increasing communication, allowing for the expression of patient needs, and improving discharge education.

### **Summary of Literature Review**

Overall research regarding patient satisfaction in the ED is largely quantitative, lacking psychometrically valid assessment tools, a priori hypotheses, and the incorporation of theory (Boudreaux & O'Hea, 2004). Within the research available there are limited studies specific to the ED and patient satisfaction. The previous research focused on specific patient populations which decreases the generalizability. Overall there was conflicting data regarding how TFC effect patient satisfaction, thus identifying the need for further investigation as a method to improve patient satisfaction. This project proposes to address the deficit of research regarding TFC as a tool to improve and maintain patient satisfaction in the ED. This will expand upon the nursing knowledge needed for evidence-based practice by providing a researched method for nurses to improve patient satisfaction.

### **Theoretical Framework**

#### **Primary Provider Theory of Patient Satisfaction**

Baker (1997) and Aragon & Gessell (2003) agreed there is no universally accepted theory of patient satisfaction in published healthcare research. Aragon and Gessell, (2003) successfully tested the Primary Provider Theory of patient satisfaction in the ED setting offering an alternative prototype for quantifying and attaining satisfaction as it relates to the patients' expectations. The Primary Provider Theory of Patient Satisfaction offers the idea that satisfaction occurs at the encounter of patient expectations (Aragon & Gessell, 2003). It also states that the primary provider's power suggesting patient satisfaction lies within a series of concepts: primary provider, wait time, and primary provider's assistants (Aragon & Gessell,

2003). The theory suggests that the origin of satisfaction and dissatisfaction largely occurs at the intersection of patient expectations and the primary provider’s power. A primary benefit to the utilization of this theory is that it is directed solely by patient-centered measures, and only the patient evaluates the quality of service.

Satisfaction with the primary provider is defined as satisfaction with the individual with the greatest clinical utility to the patient. The primary provider in this case study is the ED doctor. Satisfaction with the provider assistant could be satisfaction with the physicians’ assistant, nurse practitioner or nurses. The satisfaction with wait time indicates the patient’s satisfaction with the amount of time spent in the ED. Each characteristic is further delineated by Patient Centered Measures of satisfaction (PCM). Aragon & Gesell (2003) identified three PCMs with physician services; these include the following: takes problem seriously, demonstrates concern for comfort, and explains tests and treatment. Three PCMs are also associated with satisfaction in nursing service. These include the following: takes problem seriously, attentive, and technical skill. Satisfaction with wait time is differentiated into waiting time for MD and explained delays. The overall patient satisfaction is measured by a patient’s aptitude to recommend the service and the patient’s belief that the service was worth the money (Aragon & Gesell, 2003).

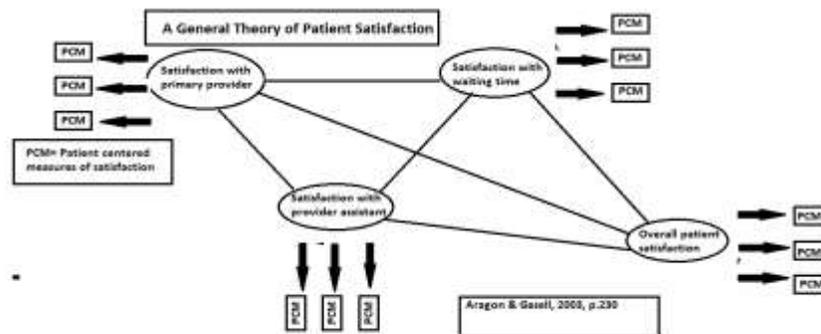


Figure 1. A General Theory of Patient Satisfaction

In terms of applying this model to the ED, the primary provider would be the nurse performing the TFC to assess patient satisfaction. Patient-centered measures of satisfaction would include whether the nurse addressed concerns, answered questions, and provided an opportunity for feedback. Satisfaction with wait time was whether the call back was prompt (within 72 hours of services received), and whether the TFC allowed for an appropriate amount of time to address all concerns while not being overly intrusive. The overall patient satisfaction with the TFC goals would include the following: increased knowledge, questions answered, discharge instructions clarified, and effective teaching regarding home care and medication.

## **Methods**

### **Research Design**

The research design for this study is a descriptive, exploratory study using a convenient sampling based on patients seen in two urban Midwestern ED settings. During routine follow up phone calls made to patients after ED discharge, patients were asked whether they would give verbal consent for an additional follow up phone call for the purpose of research.

### **Setting/Sample**

This study was conducted at two Midwestern urban EDs within the same city. The sample inclusion criteria included: 1) a patient in the ED, 2) an adult over 19 years of age correlating with Nebraska age of majority 3) English speaking, 4) access to a working telephone, and 5) verbal consent to participate in the study. Patients were recruited to the study by ED staff during routine follow up phone calls made to assess patient satisfaction, at which time verbal consent was obtained.

### **Ethical Considerations**

Permission to conduct the study was obtained from the Creighton Institutional Review Board, the nursing director of the EDs, and the Research Committee of the involved hospital organization prior to initiating the study. No patient information except for names and telephone numbers were accessed by investigators during this study. Each patient was assigned a number at the time of the satisfaction call. Each patient was given an individual sheet with their responses. The responses were then placed into an excel spreadsheet at the time of data collection with no identifying information. A separate log correlating patient numbers with name and phone number was kept. This log was kept in a locked office within the designated hospital and was destroyed at the termination of data collection.

### **Measurement Methods**

ED staff performing routine follow phone calls for patient satisfaction asked patients at the end of the phone conversation whether they would consent to an additional phone call for the purpose of research. The patients consenting to an additional follow up phone call to be made became the participants in this study. The purpose of the TFC for this research study is to specifically investigate patient satisfaction with the TFC process, and whether TFCs improve patient satisfaction with their ED experience. Patients were asked a series of three questions utilizing a Likert scale.

### **Data Collection Procedures**

Questions regarding the TFC were utilized for the purpose of the project. A Likert scale was used in this TFC study with one indicating-Strongly Disagree; two-Disagree; three-Neither Disagree Nor Agree; four-Agree; and five-Strongly Agree. The following questions were asked of each patient during the satisfaction survey for this study: 1) My additional questions or

concerns were addressed satisfactorily with the follow up phone call, 2) The follow up phone call improved my overall satisfaction with my ED visit, and 3) The follow up phone call improved my understanding of the instructions given to me at the time of my discharge. The maximum number of attempts made to reach each patient by telephone was three attempts.

Verbal consent from study participants was obtained by several trained registered nurses employed by each ED who are not connected with the study. The satisfaction survey calls made for the purpose of this study was implemented by the investigators of the study. Any additional, unsolicited comments made by the patients were included to add to the qualitative data in order to aid in the identification of any common themes which may be beneficial to other performance improvement initiatives.

### **Data Analysis**

Data was analyzed by the researchers using the Statistical Package for the Social Sciences (SPSS) 20 statistical package for analysis. Demographic data including age range and sex was analyzed with frequencies, percents, means, standard deviations and ranges.

### **Study Limitations**

This study was limited by a small sample size implicating the need for future studies to determine if a larger sample size would elicit the same results or establish that a TFC is not a successful way to maintain high patient satisfaction for EDs. The results of this study may be positively skewed due to the requirement to gain patients' consent prior to the survey. Call back nurses indicated that patients who did not find the follow up call useful may not consent to the survey call. The two institutions are both affiliated with the same healthcare system and are both located in a Midwestern city, which limits the ability to generalize the results to other geographical locations. Inclusion criteria required English speaking patients, limiting the

generalizability of this study to patients who speak another language. The age requirement limits the ability to apply these results to pediatric patients.

## Results

One hundred three patients were given the three question survey and were demographically categorized by gender and age. Of these patients 22.3% of the patients contacted were between 19-29 years old, 19.4% of the patients were between 30-39 years old, 13.6% of the patients were between 40-49 years old, 15.5% of the patients were between 50-59 years old, 9.7% of the total patients were between 60-69 years old, 9.7% of the patients were between 70-79 years old, and 9.7% of the patients were over the age of 80 (figure 2). Of the 103 participating patients 31.1% were male and 68.9% were female.

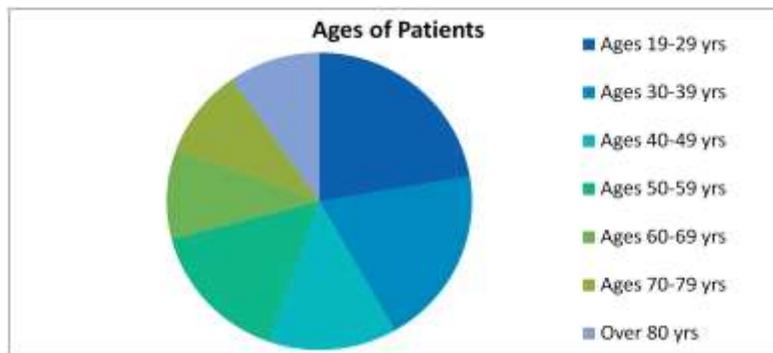


Figure 2. Demographics of Patient Age

There were three statements given to each participant. These statements were scored utilizing a Likert-type scale; Strongly Agree (5), Agree(4), Neither disagree nor agree (3), Disagree(2), and Strongly Disagree (1). The first statement presented to each participant was: “My additional questions or concerns were addressed satisfactorily with the follow up phone call.” The responses to this statement found that 99% of patients either strongly agreed or agreed with this statement and 1% of patients were neutral.

The second statement presented to each participant was, “The follow up phone call improved my overall satisfaction with my ED visit.” The responses to this statement found that

97.1% of the patients either strongly agreed or agreed with this statement, 1% of patients neither disagreed nor agreed, and 1.9% of patients disagreed (Figure 3).

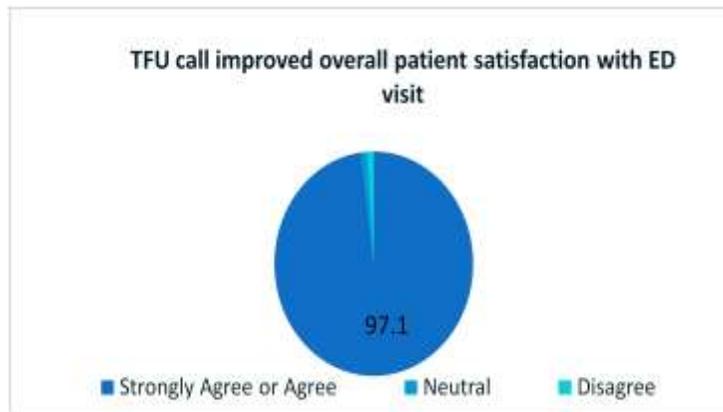


Figure 3. Improvement of overall patient satisfaction after TFU

The final statement presented to each participant was, “The follow up phone call improved my understanding of the instructions given to me at the time of my discharge.” The responses to this statement found that 87.3% of patients either strongly agreed or agreed with this statement (figure 4), 8.7% of patients neither disagreed nor agreed, and 3.9% disagreed.

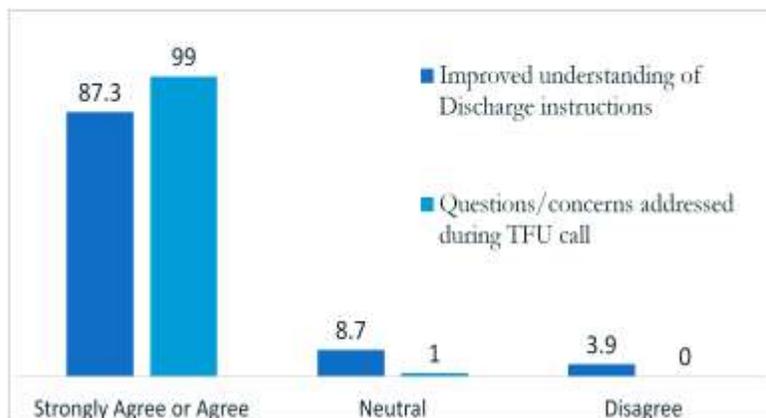


Figure 4. Improved understanding of discharge instructions after TFU

**Comparison between Institutions**

Fifty-three of the patients contacted for this study were seen at institution one ED, while the remaining fifty patients contacted were seen at institution two ED. The data indicates that Institution two serves a younger population with 68% of patients surveyed being under the age of

49, compared with 43.4% at institution one. The gender division is comparable between both institutions.

## **Discussion of Results**

### **Clinical Significance of Findings**

The results of this study demonstrated that a telephone follow up call in the ED is an effective method to improve overall patient satisfaction. This study found that patients' satisfaction was positively impacted by the telephone follow up calls in the following ways: patients were given the opportunity to have any questions or concerns addressed, and patients were given the opportunity to discuss their understanding of their discharge instructions. This study found that providing patients with an opportunity to discuss questions/concerns by means of a telephone follow up call improves patient satisfaction. Many patients responded with positive comments regarding the follow up phone call they received. Patients stated the callback nurse was very helpful and caring. Other patients found the callback to be reassuring and a considerate, unexpected gesture.

### **Recommendations for Further Research**

This pilot study showed excellent results in the ED setting involving patient satisfaction and telephone follow up calls, and should prompt further inquiry into the effects and utilization of the follow up call in other settings. Further research could be conducted to improve support for the use of the TFC in the ED setting. This research could include a greater sample size by including a larger geographical area, accommodating for non-English speaking patients, and allowing participants to be adults that were present with patients less than 19 years of age.

### **Implications of the Study for Advanced Practice Nursing**

Advanced Practice Nurses are becoming increasingly utilized in the ED setting. Patient satisfaction is used to measure quality of care. This research supports nursing practice and could potentially reflect the ability of the provider to maintain high patient satisfaction with the delivery of care. Patient satisfaction is also an important factor in provider reimbursement as high patient satisfaction not only improves all providers' reimbursement but also may lend to the credibility of the advanced practice nurse in the ED setting.

### **Conclusion**

Patient satisfaction is a key component to identifying quality care and is being increasingly utilized as a measure for reimbursement. Healthcare systems recognize that maintaining high patient satisfaction as a priority and are searching for cost-effective improvement methods. This research study provides supportive evidence that a TFC is a cost-effective method to improving patient satisfaction in the ED setting. This pilot study provides a strong basis for further research in the area of TFC utilization to improve satisfaction in the ED.

## References

- Al-Asseri, A.A., Al Achi, A., & Greenwood, R. (2001). Counseling and post discharge care. *Saudi Pharmaceutical Journal*, 9(2), 119.
- Aragon, S.J., & Gesell, S.B. (2003). A patient satisfaction theory and its robustness across gender in emergency departments: A multigroup structural equation modeling investigation. *American Journal of Medical Quality*, 18(6), 229-241.
- Baker, R. (1997). Pragmatic model of patient satisfaction in general practice: Progress towards a theory. *Quality in Health Care*, 6, 201-204.
- Baker, S., & McGowan, N. (2010, May). Post-visit calls save lives, improve clinical outcomes and reduce readmissions. *Journal of Emergency Nursing*, 36(3).  
doi:10.1016/j.jen.2010.01.011
- Beaver, K., Wilson, C., Procter, D., Sheridan, J., Towers, G., Heath, J., Susnerwala, S., & Luker K. (2011). Colorectal cancer follow-up: Patient satisfaction and amenability to telephone aftercare. *European Journal of Oncology Nursing*, 15, 23-30.
- Beney, J., Devine, E., Chow, V., Ignoffo, R., Mitsunaga, L., Shahkarami, M., McMillan, A., & Bero, L. (2002). Effect of telephone follow-up on the physical well-being dimension of quality of life in patients with cancer. *Pharmacotherapy*, 22(10), 1301-1311.
- Boudreaux, E.D., Cruz, B.L., & Baumann, B.M. (2006). The use of performance improvement methods to enhance emergency department patient satisfaction in the United States: A critical review of the literature and suggestions for future research. *Society for Academic Emergency Medicine*, 13(7), 795-802. doi:10.1197/j.aem.2006.01.031

- Boudreaux, E.D., & O'Hea, E.L. (2004). Patient satisfaction in the emergency department: A review of the literature and implications for practice. *The Journal of Emergency Medicine*, 26(1), 13-26. doi:10.1016/j.jemermed.2003.04.003
- Bowser, B.A. (2011). New plan aims to shift how hospitals are paid for medicare patients. *PBS Newshour*. Retrieved from [www.pbs.org](http://www.pbs.org)
- Braun, E., Baidusi, A., Alroy, G., & Azzam, Z. (2009). Telephone follow-up improves patients satisfaction following hospital discharge. *European Journal of Internal Medicine*, 20, 221-225.
- Bunn, F., Byrne, G., & Kendall, S. (2009). Telephone consultation and triage: Effects on health care use and patient satisfaction (Review). *The Cochrane Library* (1). doi:10:1002/14651858.CD004180.pub2.
- Cochran, V., Blair, B., Wissinger, L., & Nuss, T. (2012). Lessons learned from implementation of postdischarge telephone calls at Baylor health care system. *The Journal of Nursing Administration*, 42(1), 40-46.
- Dudas, V., Bookwaler, T., Kerr, K.M., Pantilat, S.Z. (2001). The impact of follow-up telephone calls to patients after hospitalization. *The American Journal of Medicine*, 111(9b).
- Engel, K.G., Heisier, M., Smith, D.M., Robinson, C.H., Forman, J.H., & Ubel, P.A. (2009, April). Patient comprehension of emergency department care and instructions: Are patients aware of when they do not understand? *Annals of Emergency Medicine*, 53(4). doi:10.1016/j.annemergmed.2008.05.016
- Fallis, W.M., & Scurrah, D. (2001). Outpatient laparoscopic cholecystectomy: home visit versus telephone follow up. *Canadian Medical Association*, 44(1).

Gold, J., Moffa, D., & Eitel, D. (2012). With medicare revenues at stake, ED managers place new importance on elevating the patient experience. *Emergency Department Management*. (January 1, 2012 ): 3045 words. LexisNexis Academic. Web. Date Accessed: 2012/07/01.

Gombeski, W.R. Jr., Miller, P.J., Hahn, J.H., Gillette, C.M., Belinson, J.L., Bravo, L.N., & Curry, P.S. (1993). Patient call back program: A quality improvement, customer service and marketing tool. *Journal of Health Care Marketing*, 13(3), 60-65.

Gray, R.T., Sut, M.K., Badger, S.A. & Harvey, C.F. (2010). Post-operative telephone review is cost-effective and acceptable to patients. *The Ulster Medical Society*, 79(2), 76-79.

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. Original article accepted for *British Journal of Dermatology* on April 15, 2012.

Hastings, S.N., & Heflin, M.T. (2005). A systematic review of interventions to improve outcomes for elders discharged from the emergency department. *Academic Emergency Medicine*, 12, 978-986. doi:10.1197/j.aem.2005.05.032

Holden, D., & Smart, D. (1999) Adding value to the patient experience in emergency medicine: What features of the emergency department visit are most important to the patient? *Emergency Medicine*, 11, 3-8.

Jerant, A.F., Azari, R., Martinez, C., & Nesbitt, T.S. (2001). A randomized trial of telenursing to reduce hospitalization for heart failure: patient centered outcomes and nursing indicators. *Medical Care*, 39(11), 1234-1245.

Keeling, A. & Dennison, P. (1995). Nurse-initiated telephone follow-up after acute myocardial

- infarction: A pilot study. *Heart & Lung*, 24(1), 45-49.
- Knowles, E., O’Cathain, A., & Nicholl, J. (2011). Patients’ experiences and views of an emergency and urgent care system. *Health Expectations*, 15, 78-86.  
doi:10.1111/j.1369-7625.2010.00659.x
- Kutney-Lee, A., McHugh, M., Sloane, D., Cimiotti, J., Flynn, L., Felber Neff, D., & Aiken, L. (2009). Nursing: A key to patient satisfaction. *Health Aff (Millwood)*, 28(4), 2669-2677.  
doi: 10.1377/hlthaff.28.4.2669
- Lateef, F. (2011) Patient expectations and the paradigm shift of care in emergency medicine. *Journal of Emergencies, Trauma and Shock*, 4(2), 163-167. doi:10.4103/0974-2700.82199
- Lin, Y.K., & Lin, C.J. (2011). Factors predicting patient’s perception of privacy and satisfaction for emergency care. *Emergency Medicine Journal*, 28, 604-608.  
doi:10.1136/emj.2010.093807
- Mahon, P. (1996). An analysis of the concept ‘patient satisfaction’ as it relates to contemporary nursing care. *Journal of Advanced Nursing*, 24, 1241-1248.
- Meade, C.M., & Studor,.(n.d.) A meta-analysis: research supporting discharge phone calls to hospital patients. *Alliance for Health Care Research*. Retrieved from [http://www.studergroup.com/content/ahc\\_research/associated\\_files/DischargeAHCR\\_SG.pdf](http://www.studergroup.com/content/ahc_research/associated_files/DischargeAHCR_SG.pdf)
- Mistiaen, P., & Poot, E. (2006). Telephone follow-up, initiated by a hospital-based health professional, for post discharge problems in patients discharged from hospital to home. *Cochrane Consumers and Communication Group*, 18(4).
- Nairn, S., Whotton, E., Marshal, C., Roberts, M., Swann, G., & Dip, N, B., (2004). The patient

- experience in emergency departments: A review of the literature. *Accident and Emergency Nursing*, 12, 159-165. doi:10.1016/j.aen.2004.04.001
- Rosbe, K.W., Jones, D., Sharukh, J., & Bray, M. (2000). Efficacy of postoperative follow-up telephone calls for patients who underwent adenotonsillectomy. *JAMA Otolaryngology Head and Neck Surgery*, 126(6).
- Rush, S.K. (2012). Discharge calls: How one call can make the difference for patients, families, and reimbursement. *Nurse Leader*, April 2012. doi:10.1016/j.mnl/2011.07.014
- Setia, N. & Meade, C. (2009). Bundling the value of discharge telephone calls and leader rounding. *The Journal of Nursing Administration*, 39(3), 138-141.
- Singh, J. (1989). The patient satisfaction concept: A review and reconceptualization. *Advances in Consumer Research*, 16, 176-179.
- Sitzia, J. & Wood, N. (1997). Patient satisfaction: A review of issues and concepts. *Social Science Medicine*, 45(12), 1829-1843.
- Soleimanpour, H., Gholipouri, C., Salarilak, S., Raoufi, P., Vahidi, R., Rouhi, A., Ghafouri, R., & Soleimanpour, M. (2011). Emergency department patient satisfaction survey in Imam Reza hospital, Tabriz, Iran. *International Journal of Emergency Medicine*, 4(2).
- Stolic, S., Mitchell, M., & Wollin, J. (2010). Nurse-led telephone interventions for people with cardiac disease: A review of the research literature. *European Journal of Cardiovascular Nursing*, 9, 203-217. doi:10.1016/j.ejcnurse.2010.02.003
- Suhonen, R., Papastavrou, E., Efstathiou, G., Tsangari, H., Jarosova, D., Leino-Kilpi, H., Patiraki, E., Karlou, C., Balogh, Z., & Merkouris, A. (2012). Patient satisfaction as an outcome of individualized nursing care. *Scandinavian Journal of Caring Sciences*, 26, 372-380. doi:10.1111/j.1471-6712.2011.00943.x

Tejero, L. M. (2012). The mediating role of the nurse-patient dyad bonding in bringing about patient satisfaction. *Journal of Advanced Nursing*, 68(5), 994-1002.

doi:10.1111/j.1365-2648.2011.05795.x

Toma, G., Triner, W., & McNutt, L. (2009). Patient satisfaction as a function of emergency department previsit expectations. *Annals of Emergency Medicine*, 54(3), 360-367.

doi:10.1016/j.annemergmed.2009.01.024

Tranmar, J., & Perry, M. (2004). Enhancing postoperative recovery of cardiac surgery patients: a randomized clinical trial of an advanced practice nursing intervention. *Western Journal of Nursing Research* 26(5), 515-532.

Vescio, L.M., Donahoe, S.P., Gentile, C., Sewickley, V., & Pittsburgh, P. (1999). An organization-wide approach to improving ED patient satisfaction: One community teaching hospital's experience. *Journal of Emergency Nursing* 25,(3), 192-196.

Van Walraven, C., Oake, N., Jennings, A., & Forster, A.J. (2010). The association between continuity of care and outcomes: a systematic and critical review. *Journal of Evaluation in Clinical Practice*, 16, 947-956. doi:10.1111/j.1365-2753.2009.01235.x

Wagner, D. & Bear, M. (2009). Patient satisfaction with nursing care: A concept analysis within a nursing framework. *Journal of Advanced Nursing*, 65(3), 692-701.

doi:10.1111/j.1365-2648.2008.04866.x

Ware Jr., J., Davies-Avery, A., & Stewart, A. (1977). The measurement and meaning of patient satisfaction: A review of the literature. Santa Monica, CA: RAND Corporation, 1977.

<http://www.rand.org/pubs/papers/P6036>.

Weaver, L.A., & Doran, K.A. (2001). Telephone follow-up after cardiac surgery: Facilitating the

transition from hospital to home. *American Journal of Nursing*, 101(5).

Welch, S.J., Asplin, B.R., Stone-Griffith, S., Davidson, S.J., Augustine, J., & Schuur, J. (2010).

Emergency department operational metrics, measures and definitions: Results of the second performance measures and benchmarking summit. *The American College of Emergency Physicians*. doi:10.1016/j.annemergmed.2010.08.040

Wennberg, D.E., Marr, A., Lang, L., O'Malley, S., & Bennett, G. (2010). A randomized trial of

telephone care-management strategy. *New England Journal of Medicine*, 363, 1245-1255.

Zusman, E.E., (2012). HCAHPS replaces press ganey survey as quality measure for patient

hospital experience. *Neurosurgery*, 71(2), N21-N24.

doi:10.1227/01.neu.0000417536.07871