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Improving Patient Discharge Satisfaction Scores by Implementing Teach-Back Instructions in a Community Hospital Emergency Department (ED): A Quality Improvement Project

Kristen Burke

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Improving Patient Discharge Satisfaction Scores by Implementing Teach-Back Instructions in a Community Hospital Emergency Department (ED): A Quality Improvement Project

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Abstract

**Background:** Health literacy and patient satisfaction play a role in healthcare today and it is the responsibility of all providers to ensure that patients are educated about the care they received in the ED and what they should be doing upon discharge. The teach-back method ensures patients have a complete understanding of their ED stay and discharge instructions.

**Purpose:** The purpose of this quality improvement project was to increase patient satisfaction scores by implementing the evidenced-based, patient-centered, teach-back method for all patient education opportunities.

**Methods:** The DNP student led the ED leadership team and staff nurses in a quality improvement project. The DNP student provided education on the use of teach-back and was a resource for the nurses who were expected to use the method. Using comparative analysis the DNP student compared the frequency distribution of the pre and post-intervention survey results and the de-identified EDCAHPS patient satisfaction scores from the three months before and after implementation.

**Results/Interpretation:** There was a reported 7% to 18% increase in the nurses’ familiarity, use, comfort level and perceived sustainability of teach-back in the ED. There was an increase in the patient discharge satisfaction survey (EDCAHPS) scores of 3.96% for the five (5) questions addressing care and teaching by nurses during the ED stay and 6.525% for the four (4) questions related to the discharge process.

**Conclusion/Implications:** Teach-back improved the quality of instructions provided in the ED leaving patients with the improved tools they need to care for themselves upon discharge. There was an improvement in patient discharge satisfaction scores which could lead to improved comprehension, compliance, better outcomes and decreased ED recidivism with complaints they have already been seen for. Teach-back was implemented as the appropriate method to use when providing patient education and discharge instructions in the ED. It will be reviewed with all new nursing staff members and periodically reinforced by the leadership team. Consideration will be given to providing the physicians, nurse practitioners and physician assistants the same instructions on how and when to use teach-back to improve the patient-centered care provided to all patients and family members in the ED.

**Keywords:** Teach-back, discharge, satisfaction
Improving Patient Discharge Satisfaction Scores by Implementing Teach-Back Instructions in a Community Hospital Emergency Department (ED): A Quality Improvement Project

Introduction

The implementation of pay-for-performance in 2013 placed patient satisfaction scores in the forefront of healthcare; first the higher the satisfaction scores the more money hospitals and providers receive in reimbursements and second, and more importantly, patient outcomes are directly related to satisfaction scores (Accreditation Association for Ambulatory Health Care, INC., 2015; API Healthcare Corporation, 2015; The Medicare Learning Network, 2015). Poor discharge satisfaction scores mean that patients are either not getting the care they need, not understanding the care they have been provided, or worse, both. Assuming that patients are getting what they need, this means that healthcare providers are not taking the time to ensure that the patients know about and understand the tests and treatments that are being carried out and prescribed to them in the hospital and for home upon discharge. The two major factors that need to be considered when providing discharge instructions are the patients’ health literacy level and the patients’ own experiences, needs, values and wishes.

Health literacy is the patients’ ability to understand and use health information, old and new, to make decisions (DeWalt, et al., 2011; Samuels-Kalow, Hardy, Rhodes, & Mollen, 2016). Health literacy plays an important role in medicine today and it is the job of all providers to ensure that patients are successfully educated about the care they received in the ED and especially what they should be doing upon discharge (Office of Disease Prevention and Health Promotion, n.d.).

According to the Institute of Medicine (IOM) (2001) all healthcare should be safe, effective, patient-centered, timely, efficient, and equitable; if these benchmarks are not being met
then healthcare professionals need to change the way they are practicing in order to improve the care they are providing. The Manatt Health Project Team (2016) said that academic nursing could be the link between different levels of care such as the outpatient setting and home. This supports The Institute of Medicine (2011) view that nurses have unique insights and abilities that can lead to increased quality and safety and therefore should be looked to as an equal part of the team that provides patient centered care. Patient centered care, according to the IOM (US) Committee on Quality of Health Care in America (2001) and Epstein and Street (2011), is defined as providing individualized care based on the experiences, needs, values and wishes of the patient. Taking into account the health literacy and individual needs of the patient while providing discharge instructions will ensure that patients receive care that meets the Institute of Medicines requirements and leads to improved compliance, better patient outcomes and an increase in satisfaction scores (Aslam, 2014; DeWalt, et al., 2011; Griffey, et al., 2015; Institute of Medicine (US) Committee on Quality of Health Care in America, 2001; Putney & Kelly, 2015; Tamura-Lis, 2013).

Background

According to the Office of Disease Prevention and Health Promotion (2008) 12% of adults in the United States had a proficient health literacy rate, 53% had an intermediate health literacy rate and 35% had a basic or below basic health literacy level. This percentage equates to 77 million people who are at risk for poorer health outcomes and decreased satisfaction related to their inability to understand the discharge instructions provided to them (Office of Disease Prevention and Health Promotion, 2008). Patients may experience embarrassment over their inability to understand the discharge instructions, which may prevent them from asking questions about the prescribed treatment regimen and inhibit them from discussing treatment options with
the healthcare team. Aside from the numbers, health literacy can also be affected by illness or injury; patients under stress may not be able to completely understand the scope of what a provider or nurse is discussing with them (DeWalt, et al., 2011). These facts mean that all patients are at risk for not understanding the prescribed treatment regimen and are therefore at risk for poor outcomes and low satisfaction scores.

Providers representing all aspects of care, certified nursing assistants, nurses, physician assistants, nurse practitioners and physicians provide teaching to patients. In the ED all patients have a decreased health literacy risk because of the illness or injury that brought them to the hospital and because they may be facing a situation that is new and different. It is the health care team’s responsibility to make sure that the patients understand the instructions that they are given. DeWalt, et al. (2011), Griffey, et al. (2015), Haney and Sheperd (2014), Jager and Wynia (2012) and Peter, et al. (2015) all propose making teach-back a universal practice with all patients by all providers in order to improve patient comprehension.

**Problem Statement**

There is a risk of lack of comprehension of discharge instructions (medications, wound care, follow-up, e.g.) due to overall poor health literacy. This is evidenced by a current trend in decreasing patient satisfaction scores and by patients verbalizing that they did not know what they were supposed to do when they got home. This results from a lack of appropriate teach-back instruction from the healthcare staff throughout the patients’ ED visit.

**Organizational “Gap” Analysis of Project Site**

A patients’ health literacy as well as their current illness or injury can affect their ED stay as well as put them at elevated risk of not understanding what the healthcare team is telling them or attempting to discuss with them (DeWalt, et al., 2011; Office of Disease Prevention and
Health Promotion, 2008). The presence of these factors accompanied by decreasing patient satisfaction scores make for an environment that is well suited for a change in the way that instructions are presented to patients. The ED at The Miriam Hospital has recently had a decrease in patient satisfaction scores from patients after their discharge from the facility. Upon discharge from the ED patients are mailed either a Press Ganey Emergency Department Satisfaction Survey (EDSS) or an Emergency Department Consumer Assessment of Healthcare Providers and Systems (EDCAHPS) survey (see Appendices A and B) and asked to complete it; the de-identified results are used to determine patient satisfaction. The Press Ganey EDSS survey has one question about information given to them about home care and no questions regarding teaching or their understanding of what they were taught. The EDCAHPS have eight questions that relate to the nursing staff teaching, ensuring understanding of information and follow-up care. The decrease in satisfaction scores is a concern but it was the comments that patients made that revealed a gap in the patient care. Patients wrote in that they did not understand what tests were performed in the ED, they did not know why they were supposed to take medications at home and that they did not know why they were supposed to follow-up with their primary care provider.

These comments exposed the fact that the healthcare staff is not providing adequate patient education. If patients do not understand the instructions they receive then they are not getting safe, effective, patient-centered, timely, efficient, and equitable care; it also means that patients are not following the recommendations at all or that they are following them incorrectly. Implementing the teach-back method will help to improve the current gap in how education is provided and comprehended.
Review of the Literature

The search for applicable research started broadly within five (5) databases to include Cumulative Index of Nursing and Allied Health Literature (CINAHL), PubMed, Journal Storage (JSTOR), Educational Research Information Center (ERIC) and Google Scholar. The limiters for all searches were full text, English language, peer reviewed and the years 2011 to present. There was some investigative searching looking for which search terms would illicit the articles and studies that would be the most helpful. The first search was for care transitions (185 results) and emergency department (10 results); these articles were not related to the actual discharge process only the process of transferring from one clinical setting to another. The second search was for patient education (1932 results) and discharge (146 results). Several of the initial articles contained useful information regarding discharge comprehension and health literacy as well as the same key search term of teach-back listed which lead to the final search of teach-back (20 results).

Communication and Discharge

Using the John Hopkins Nursing Evidence-based Practice Rating Scale all of the selected articles and studies were graded on the strength and the quality of the evidence. Gignon, Ammirati, Mercier, and Detave (2014) conducted a qualitative study of 36 patients discharged from an ED (Level III-C). While it was a small study from one ED, they found that half of the patients did not fully understand the discharge instructions and that they recalled less than half of the important discharge instructions; the authors concluded that better communication was required between patients and providers. Samuels-Kalow, Hardy, Rhodes, and Mollen (2016) conducted another small, qualitative study involving 51 patients or parents (Level III-C). They presented similar findings that supported using teach-back to enhance understanding in the ED.
The findings of Samuels-Kalow, Hardy, Rhodes, and Mollen (2016) and Gignon, Ammirati, Mercier, and Detave’s (2014) are supported by the earlier research of DeWalt, et al. (2011) who performed an exhaustive literature review and determined that there was a need to develop a tool to assist providers to communicate more effectively with patients. They then implemented a quality improvement project to see if the tool they had developed improved patient provider communication (Level V-A); unfortunately the tool they developed was not concise enough to be practical for use on an everyday basis but was recognized as having suggested helpful tips that the practices would use in the future like the teach-back technique. Cua and Kripalani, (2008) presented a paper that identified the transition from the hospital to home with prescribed medications as a process that required effective communication to ensure patient comprehension and safety (Level IV-A). They listed a large amount of information in a short period of time as the primary reason for poor comprehension and adherence after discharge; they too suggested teach-back as a method to improve communication during the discharge process.

**Discharge and Teach-Back**

Peter, et al. (2015) set out to examine the discharge process and transitions of care at their facility and discovered a need to improve patient education. They implemented a quasi-experimental study of greater than 400 heart failure patients on one unit and discovered that the patients who received teach-back instruction demonstrated improved 30 day re-admission rates as well as a decreased length of stay on their second admission (Level II-A). The success of the study drove an effort by the hospital to implement teach-back as the primary method of instruction for all teaching. Another successful study of teach back with heart failure patients was conducted by Haney and Sheperd (2014); it was a quasi-experiment conducted on a small sample (Level II-C) that consisted of in-patient education and follow-up after discharge. During
their follow-up they found that patients reported only remembering topics that they had been familiar with prior to the hospitalization. The authors concluded that providers should place more emphasis on topics that patients are unfamiliar with and that teach-back should be incorporated into all phases of patient care. Jager and Wynia (2012) conducted a qualitative study of more than 2500 patients (Level III-A) to see if teach-back had been used with them or not. They found that those who fell into categories more likely to have a low health literacy level were more likely to receive teach-back and that other patients who could have benefitted from teach-back may have been overlooked. This lead Jager and Wynia (2012), to their first recommendation, that all patients receive teach-back education. This correlates with the findings of Haney and Sheperd (2014) and Peter, et al. (2015) who also suggested a universal approach to using teach-back. Jager and Wynia (2012) also suggested that using teach-back could positively influence patients’ perception of the length of time they spent with the provider and subsequently patient satisfaction.

**Teach-Back and Satisfaction**

The possibility of using teach-back to improve patient discharge satisfaction scores came up several times in the search for the best evidence in the literature (Aslam, 2014; Putney & Kelly, 2015; and Tamura-Lis, 2013). Aslam (2014) presented a literature review of the discharge process involving pediatric patients (Level V-B) and the importance of involving family; this can be true of adult patients as well. The author presents the patients hospital discharge as an ongoing process and not something that is done right before the patient leaves. Aslam (2014) also makes the point, just as Jager and Wynia (2012) did, that teach-back can ensure that patient care is safe, effective, patient-centered and efficient and that this level of quality care can lead to increased levels of patient satisfaction. Tamura-Lis (2013) presented
their research on teach-back for quality education and safety (Level IV-A); in it they summarize that in the clinical setting teach-back maximizes patient learning, comprehension and satisfaction. Putney and Kelly (2015) conducted a quality improvement project on a hospital’s heart failure unit; they educated nurses on the use of teach-back and then had them implement the teaching method for all medication administration and discharges. Putney and Kelly (2015) then went on to compare the HCAHPS (Hospital Consumer Assessment of Healthcare Providers and Systems) scores of patients four months prior to the implementation and four months after the implementation; based on those results they hypothesized, as did Aslam (2014), Jager and Wynia (2012) and Tamura-Lis (2013), that teach-back improves communication between nurses and patients and contributes to patient satisfaction scores. One research study, conducted by Griffey, et al. (2015) specifically looked at the effects of teach-back on comprehension and satisfaction in the emergency setting using a randomized, controlled study (Level I-A) and found as the others did, that teach-back improved comprehension of the presented information. Unlike the other studies or presentations, Griffey, et al. (2015) did not find a correlation between teach-back and improved patient satisfaction scores.

The current evidence clearly delineates the need for improved communication between patients and the provider (Aslam, 2014; Cua and Kripalani, 2008; DeWalt, et al., 2011; Gignon, Ammirati, Mercier, and Detave 2014; Griffey, et al., 2015; Haney & Sheperd, 2014; Jager & Wynia, 2012; Peter, et al. 2015; Putney & Kelly, 2015; Samuels-Kalow, Hardy, Rhodes, and Mollen 2016; Tamura-Lis, 2013). The teach-back method of educating patients has much evidence to support its use by providers at all levels and in multiple settings. The one factor that is in question is its effect on patient satisfaction. Many of the investigators say that it will positively affect satisfaction, others suggest that it might, and one says that it will not affect
patient satisfaction levels at all; it is an area of teach-back that requires continued study. Patient satisfaction has declined in the ED at The Miriam Hospital (TMH) because of a lack of patient teaching and comprehension; teach-back could be used to help improve how the staff educates the patients seen in the emergency department.

**Evidence Based Practice: Verification of Chosen Option**

Based on the review of the literature, education will be provided to all ED nursing staff on the use of the teach-back method for educating patients. The staff will then be instructed to use teach-back for all teaching opportunities. The de-identified Emergency Department Consumer Assessment of Healthcare Providers and Systems (EDCAHPS) satisfaction scores from the three months prior to the implementation of teach-back will be compared to the scores from the three months after the implementation looking for improvement in patient satisfaction scores. The goal of this quality improvement project is to educate all of the nursing staff on the proper use of the teach-back method so that it can be utilized to improve the ED stay, comprehension, outcomes and therefore the satisfaction scores for all patients.

**Evidence Based Practice Model**

This quality improvement project will be carried out using the evidence-based practice model of teach-back, also known as the *show me* method (Project RED, 2011) (see Appendix C). The teach-back method involves asking patients to repeat back, in their own words, or demonstrate back to the provider, what they have been taught. Patients receive teaching throughout their ED stay and therefore the staff have multiple opportunities to ask patients to explain what they have learned. An example of what the providers can ask is “I’m glad that you are feeling better and that you are going to be discharged home but I want to make sure that I explained the signs to look for that should bring you back to the hospital, what are some of the
signs that would make you come back in?” Another example is “we discussed Zofran when I
gave it to you earlier and now you are going to be discharged home with it; can you tell me why
you are going to take this medication?” If patients are unable to tell the providers what they have
learned then providers will re-teach the information differently until the patients gain an
understanding of the instructions (The SHARE Approach, 2014).

The second guiding principle for this quality improvement project is the Institute of
Medicine’s (2001) concept of patient centered care and the goal for all providers to be responsive
to the needs, values and preferences of all patients. According to Epstein & Street (2011)
patients need to be listened to and allowed to verbalize their concerns and wishes when it comes
to their healthcare. Nurses who have spoken with their patients and come to understand their
concerns and preferences about their healthcare will be better positioned to provide discharge
instructions that are meaningful to the patient. Keeping the patient as the center of the care team
allows the nurse to anticipate health literacy needs that need to be addressed during teaching
opportunities and at the time of discharge. Epstein and Street (2011) suggest that providers can
make the plan of care more patient centered by using the teach-back method. Providers will
have to adapt their teaching methods to meet the varying needs of the individual patients.

**Goals, Objectives and Expected Outcomes**

The goals for this quality improvement project were dependent on whether they took
place during the pre-intervention, intervention or post-intervention phase. The pre-intervention
goals focused on presentation preparation and approval from the stakeholder. The emphasis of
the intervention goals were on the pre-survey assessment and the dissemination of information to
the nursing staff. The post-intervention goals were meant to assess the success of the
intervention and how likely the nurses were to continue to use the method of patient education.
### Pre-Intervention Goals, Objectives & Expected Outcomes

<table>
<thead>
<tr>
<th>Goals</th>
<th>Objectives</th>
<th>Expected Outcomes</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Develop a presentation on teach-back</td>
<td>1. 5-7 minutes in length 2. Able to be presented in person and electronically 3. What teach-back is 4. Why needed in ED 5. How to do it</td>
<td>Stakeholders will approve presentation</td>
<td>Met</td>
</tr>
<tr>
<td>2. Develop pre-assessment on teach-back</td>
<td>1. Assess staff’s current knowledge level of teach-back 2. Assess staff’s current use of teach-back</td>
<td>Stakeholder will approve use of assessment</td>
<td>Met</td>
</tr>
<tr>
<td>3. Develop post-assessment on teach-back</td>
<td>1. Assess staff’s current knowledge level of teach-back 2. Assess staff’s comfort using teach-back 3. Assess if teach-back is sustainable</td>
<td>Stakeholder will approve use of assessment</td>
<td>Met</td>
</tr>
<tr>
<td>4. Develop teach-back tips</td>
<td>1. 7 tips for staff nurses 2. Quick, easy to read slides 3. The how and why of teach-back</td>
<td>Stakeholder will approve use of tips as staff reminders</td>
<td>Met</td>
</tr>
</tbody>
</table>

### Intervention Goals, Objectives & Expected Outcomes

<table>
<thead>
<tr>
<th>Goals</th>
<th>Objectives</th>
<th>Expected Outcomes</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 100% of nursing staff will take pre-survey</td>
<td>1. Present pre-survey to nursing staff during huddles 2. Nursing staff will take immediately and anonymously and place in envelope</td>
<td>75% of nursing staff will take pre-assessment survey during huddles</td>
<td>Met - 75%</td>
</tr>
<tr>
<td>2. 100% of nursing staff will receive oral or electronic presentation</td>
<td>1. Teach-back presentation will be given during huddles for 1 week 2. Electronic version of presentation will be sent out at the end of the week to all staff</td>
<td>75% of nursing staff will receive presentation in person, during huddles 100% of nursing staff will receive presentation electronically through work e-mail</td>
<td>Met</td>
</tr>
<tr>
<td>3. 100% of nursing staff will receive Teach-back tips</td>
<td>1. A teach-back tip will be sent out via office email every 2 weeks 2. Teach-back tips will act as a reference and reminder for performing teach-back</td>
<td>100% of nursing staff will receive teach-back tips via email</td>
<td>Met</td>
</tr>
</tbody>
</table>
## Post-Intervention Goals, Objectives & Expected Outcomes

<table>
<thead>
<tr>
<th>Goals</th>
<th>Objectives</th>
<th>Expected Outcomes</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 100% of patients will receive teach-back education during discharge process</td>
<td>1. Teach-back will be used by nursing staff to provide all patient education 2. Teach-back will be used for all discharge instructions 3. There will be an increase in patient satisfaction scores upon discharge from the ED</td>
<td>Patient will report an understanding of medication and testing done in the ED Patients will report an understanding of prescribed medications, wound care and follow-up upon discharge Patient satisfaction scores will improve on EDCAHPS</td>
<td>Partially met - testing, yes - medication, no - see Results section Met</td>
</tr>
<tr>
<td>1. 100% of nursing staff will complete a post-assessment at the end of three months</td>
<td>1. Present post-survey to nursing staff during huddles 2. Nursing staff will take immediately and anonymously and place in envelope</td>
<td>75% of nursing staff will take post-assessment during huddles There will be an increase in the understanding and use of teach-back in the ED</td>
<td>Met - 76.9% Met</td>
</tr>
</tbody>
</table>

## Project Design

The DNP student utilized the Health Resources and Services Administration (2011) Quality Improvement framework with educational evaluation design to lead a QI team in implementing a quality improvement project aimed at improving patient satisfaction scores after discharge from the ED. The QI team then compared the quantitative data from pre and post intervention surveys to determine if there was an increase in the nurses’ knowledge and use of teach-back. They then compared the quantitative and qualitative data from the EDCAHPS as well as the written comments from patients to determine if teach-back improved the patient’s ED experience.

## Project Site and Population

The Miriam Hospital was one of 13 hospitals serving the state of Rhode Island. Rhode Island has a population of 1,056,426 million that is 84.5% White, 7.9% Black or African American and 14.4% Hispanic or Latino (United States Department of Commerce, 2016). In
2014 the patients seen in Rhode Island hospitals were 86.6% non-Hispanic/Latino and 10.3% Hispanic/Latino, according to that same report 98% of the patients seen had some form of health insurance (Rhode Island Department of Health, 2015). TMH is a 247 bed acute care, community hospital located in Providence, RI. The ED is a 56 bed department that, in 2016, saw 68,000 patients which is enough ED visits for a 700 bed hospital (Quality Matters Emergency Medicine Consulting, 2016).

The primary stakeholder for this project was Denise Brennan, MSN, CNL, director of emergency services; she gave her commitment to this quality improvement project with her time, expertise and written approval (see Stakeholder Letter, Appendix E). The participants in the project were the nurses that work in the ED under the guidance of the DNP student. In order to gain the participation of the staff the student presented the quality improvement project during shift huddles (the time at the beginning of the shift when the leadership team speaks with the nursing staff) for one week, as these times brought the majority of the staff members together.

**Setting Facilitators and Barriers**

The first facilitator was that the ED manager and the leadership staff were supportive of any measure to improve the patients’ satisfaction scores. Another facilitator was that the ED at TMH is where the author worked which would likely increase the support from fellow staff members. The concluding facilitator was that the hospital is a Magnet Hospital and as such supports nurse driven projects.

The DNP student anticipated two major barriers to implementing a project in the ED; the first was that it could be looked at as another change that the staff nurses had to endure. This barrier was resolved by making the staff aware that increased comprehension of discharge instructions could lead to a decrease in patients returning for the same chief complaint. In order
to use teach-back effectively several nurses approached the DNP student and used them as a resource for approaching certain topics or just to say that they were feeling more comfortable using teach-back in their everyday practice.

The second possible barrier was the threatened increase in the number of patients seen in the ED during the three months after implementation. On December 1, 2017 one of the hospitals in the state closed its ED doors and was no longer accepting new patients; fortunately for the TMH they had slowly been stopping services over the past year and so there was not as large a spike in patient visits as the staff feared. The influenza virus became widespread in the state of Rhode Island at the end of December 2017 according to the Rhode Island Department of Health (2018). The combination of the hospital closure and the influenza season led to 598 more patient visits during the three months of the intervention phase (The Miriam Hospital Emergency Department, 2018); this averaged out to be 6.5 more patient visits per day. These visits were absorbed into the workflow of the staff and providers and did not impact the project.

Implementation/Procedures

This QI project was guided by the PDCA (Plan, Do, Check, Act) process improvement framework. As part of the “plan,” the doctoral student designed the educational component to be presented orally or in an electronic format (see Appendix D for outline of the presentation). The QI team (clinical manager and assistant clinical managers) were apprised of the intervention then trained to assist in the delivery of the teach-back intervention education component and to deliver surveys to the nursing staff pre and post intervention. The DNP project included an evidence-based, patient-centered, quality improvement, process plan for enhancing patient teaching aimed at improving patient comprehension at discharge and increasing patient satisfaction scores.
The next step was the “do” or educational portion of the implementation process. The DNP student, and/or QI team member, went to huddles at the beginning of every shift for a week. Huddles are a brief meeting at the beginning of every shift when either the clinical manager or one of the assistant clinical managers put out information to all of the staff nurses; this process has been in place for five years and takes place at 0700, 0900, 1100, 1500, 1900, and 2300 daily. During those huddles the anonymous pre-survey of the staff nurses’ knowledge and comfort with using the teach-back method was distributed, completed, collected and placed in a sealed envelope for the DNP student’s and QI team’s blinded aggregate review. At the same huddles, the DNP student or the assigned manager provided the six minute, pre-recorded presentation on the use of teach-back methods to improve patient understanding of instructions given during the ED visit and at the time of discharge (regarding their diagnostic results, diagnoses, treatments, medications, and home self-management considerations). At the end of that week the electronic presentation was sent to all of the nursing staff for their continued reference and for those nurses who missed the in-person presentation. The next step in the action plan was for the ED nurses to employ teach-back methods with all teaching opportunities in the ED and during the discharge process. The DNP student provided the nursing staff with a different teach-back tip (Appendix F) every two weeks during the three months following implementation to act as a reminder to use teach-back as well as a quick, and easy to read resource. The DNP student was also available to the staff nurses in person, by email and phone in the event that there were any questions regarding the use of teach-back in their everyday practice.

At the end of the three month-long project, the “check” part of the plan began. The DNP student or a member of the QI team again went to huddles and administered the anonymous post-
survey questionnaire to assess the nurses’ knowledge and comfort with the improved teach-back education process, as well as to assess its potential for sustainability. A general comparative analysis was done on the de-identified patient satisfaction scores (by the DNP student) from the three months prior to the implementation thru the three months after the implementation of the teach-back processes. Although no direct link can be made that teach-back was the sole intervention responsible for the specific increase in patient satisfaction noted, teach-back is expected to have had some positive effect in improving the overall patient satisfaction scores. Because satisfaction scores increased, the ED leadership and QI team acted (“act”) immediately to make teach-back a permanent method of teaching in the ED. The ED nurse educator was provided with an electronic copy of the teach-back presentation so that all new staff members will get the same education as the rest of the ED nursing staff. To continue to build on the success of teach-back and to further increase patient satisfaction scores, consideration will be given to having the providers (physicians, nurse practitioners and physician assistants) receive the same education. If teach-back is presented to the providers then the cycle of plan, do, check, act will be carried out again as this is a continual process.

**Measurement Instruments**

In order to assess the staff nurses knowledge, use, comfort and perceived sustainability of teach-back they were asked to complete a four question Likert scale to determine their preferences or degree of agreeability. The nurses took the pre-survey (Appendix G) during shift huddles prior to receiving education on teach-back. Three months later the nurses were asked to complete the post-survey (Appendix H) which was also a four question Likert scale. Both surveys were anonymous, quick, and easy to complete.
The Press Ganey Emergency Department Satisfaction Survey and the Emergency Department Consumer Assessment of Healthcare Providers and Systems (EDSS and EDCAHPS) are both Press Ganey questionnaires that are universally used by hospitals across the country. The hospital has used these tools in some capacity since 2004. Since 2014, patients discharged from the ED have receive either the EDSS or the EDCAHPS; it is a random process and evenly divided 50/50 between all patients discharged directly from the ED. The EDCAHPS, a twenty-seven (27) question survey that addressed the patients overall experience and how the providers and nurses addressed their concerns and instructed them about their care was used to monitor for improved patient satisfaction based on the relativity of its questions to patient teaching.

**Data Collection**

Data collection began when the pre-survey assessments had been completed by the nursing staff and was completed when the results of the EDCAHPS surveys were made available. The pre and post intervention surveys were carried out in the same manner. A member of the QI team attended huddles passing out the survey to the staff nurses and asking them to complete them. When the anonymous surveys were completed they were placed in a manila envelope and then secured in the assistant clinical manager’s office where they remained until the next scheduled huddles.

The Emergency Services Director automatically receives aggregate patient satisfaction scores from the de-identified EDCAHPS that patients complete and return. The results are available monthly and are grouped together in three month blocks; they originate from Press Ganey Specialized Client Reporting Solutions. The write in comments from the EDCAHPS are logged by the data collection company and tracked by a TMH employee. The ED manager requested the data and it was made available to them within 48 hours.
Analysis

The DNP student used the anonymous pre and post-survey results to create an Excel spreadsheet with the responses from the nursing staff. The results from the Likert scale, 1 thru 5, were recorded for every response for each question. The results were then totaled for each question and the percentage was calculated based on the total number of responses. This procedure was carried out for both the pre and the post-surveys. Using comparative analysis the DNP student compared the frequency distribution of the pre and post-intervention survey results from the nursing staff in order to monitor for an increased understanding and use of teach-back in the ED. The DNP student was able to sit down with Denise Brennan and review and compare the list of written comments made by patients. The team then compared the frequency distribution of the de-identified EDCAHPS patient satisfaction scores from the three months prior to the implementation to the three months after implementation to look for a change in patient discharge satisfaction scores.

Results

The DNP student first reviewed the results of pre and post-surveys from the nursing staff. There were seventy-eight (78) completed pre-surveys which equaled 75% of the nursing staff and eighty (80) post-surveys which equaled 76.9% of the nursing staff. There was an increase in the nurse’s reported familiarity with the teach-back method from 83% somewhat and very prior to the teach-back presentation to 94% somewhat or very after the intervention and the three months of implementation.
Question 1. How familiar are you with teach-back as a form of patient education?

When asked how often they actually used teach-back when providing patient education the nursing staff reported using it somewhat or always 66% of the time pre-intervention; after the intervention they reported using teach-back somewhat or always 83% of the time.

Question 2. How often do you use teach-back when providing patient education?

The nurse’s reported comfort level with using teach-back increased from 72% somewhat or always pre-intervention to 90% post-intervention.

Question 3. How comfortable would you be using teach-back at this time?

Lastly, when asked how sustainable teach-back was in the ED setting 84% of the nurses reported that it was somewhat or very sustainable pre-intervention and 91% post-intervention.
Question 4. How sustainable is teach-back as a method of patient education?

Next the DNP student looked at the write in comments from patients. It was the write in comments from patients that initially alerted the leadership team to a gap in patient education. However, in the three months before and after the QI project implementation there were no specific comments made from patients about being sent home without the education they needed in order to continue their care after discharge. The qualitative comments after the intervention were predominately about the long wait times and there seeming to be “too many patients” but none regarding care after discharge (Press Ganey Specialized Client Reporting Solutions, 2018).

Finally the DNP sat down with the ED manager and reviewed the EDCAHPS results. There was an average 3.96% increase in the patient satisfaction scores for the five (5) questions that addressed care and teaching by nurses during the ED stay and there was a 6.525% increase in the average patient satisfaction scores for the four (4) questions that were directly related to the discharge process. During the months of August, September and October 69.9% of patients believed that the nurses spent enough time with them and during November, December and January the same percentage of patients reported feeling that the nurses spent enough time with them. The one question that had a decrease in score was if the patient was told what a medication was for before it was administered to the patient; this decreased from 85.7% to 84.3% after teach-back was implemented. The remainder of the questions examined all had an increased score. The results were as follows:
(Press Ganey Specialized Client Reporting Solutions, 2018)

(Press Ganey Specialized Client Reporting Solutions, 2018)
Interpretation/Discussion

The results of the nursing pre and post-surveys showed that there was an increase in the knowledge of, comfort in and use of teach-back. The nurses also provided qualitative comments such as “it was easier than I thought it would be” and “it doesn’t seem to take more time.” The fact that the nurses felt more confident in what teach-back was and how to use it could mean that they are employing the method more in their everyday nursing practice. The nurses also reported that teach-back was a sustainable form of patient education. This reinforces the fact that teach-back can and should be a part of the education process for all patients (Aslam, 2014; Cua & Kripalani, 2008; Gignon, Ammirati, Mercier, & Detave, 2014; Griffey, et al., 2015; Haney & Sheperd, 2014; Jager & Wynia, 2012; Peter, et al., 2015; Putney & Kelly, 2015; Samuels-Kalow, Hardy, Rhodes, & Mollen, 2016; Tamura-Lis, 2013).

The write-in comments were interesting in that they did not mention any of the factors that were being looked at in terms of patient education. The patients were concerned about the wait times and how busy the nurses were. This could possibly mean two things, one the increase in the number of patients seen was not a factor and/or that teach-back did affect the patient’s impression of the amount of time spent with the nurse as suggested by Jager and Wynia (2012).

The increase in the satisfaction scores related to patient teaching could be related to utilization of the teach-back method when providing education to patients. Because there is no way to know if the nurses are actually using teach-back the increased scores could mean that the nurses are tailoring how they teach to the patient’s needs; the nurses could still be providing patient centered education.

The fact that there was a decrease in patient satisfaction scores for telling a patient what a medication was for before administering it could mean that the nurses are focusing on the actual
patient discharge portion of the patient visit and not providing teach back continuously throughout the visit. If this is the situation, then reminders can be made that teach-back is encouraged throughout the visit and not just at the time of discharge. Another explanation for the decreased score could be that the patients did not understand or hear what was happening in that moment because of their health literacy (DeWalt, et al., 2011; Office of Disease Prevention and Health Promotion, 2008; Office of Disease Prevention and Health Promotion, n.d.). If this is the case, then the nurses need to ensure that the patient is told before they are medicated and that the information is reviewed with them when their condition improves.

**Cost-Benefit Analysis/Budget**

The cost for this quality improvement project was less than $20.00. The DNP student designed the pre- and post-surveys and printed them up at home, the cost of this was less than $10. The educational component was presented using Microsoft Power Point 2013, which the DNP student already owned. There was no cost associated with presenting the information to the nursing staff during huddles as this was a process that was already in place and e-mailing the electronic presentation to all of the nursing staff in the department was free of cost. The DNP student volunteered their time to attend as many huddles as possible and it was part of the assistant clinical managers’ job responsibility to run and present huddle information. The final aspect of the project was the satisfaction surveys that were sent to patients; the mailing of the questionnaires and their analysis was already a process carried out by the hospital and so it garnered no additional cost. In order to repeat this QI project in a different department or a different hospital could mean an increase in cost based on the available resources of the QI team.
Ethical Considerations/Protection of Human Subjects

The DNP student is an employee of the hospital and a staff member in the emergency department; they led a team of ED leadership personnel in presenting a quality improvement project to the staff nurses. The DNP student was available to fellow employees as a resource and team leader for this process change. The University of Massachusetts, Amherst (UMass) Institutional Review Board (IRB) approval was obtained prior to initiating the DNP project (see Appendix K). The DNP quality improvement project used evidence-based practice to improve how the ED staff provided education to all patients and family members and so did not single out or differentiate between patients for any reason. All patients seen in the hospital were protected by and will continue to be protected by the Health Insurance Portability and Accountability Act of 1996 (HIPAA) which, among other guarantees, protected the privacy of patients’ health information.

All information collected as part of evaluating the impact of this project was anonymous, aggregated data from the project participants and de-identified aggregated patients’ satisfaction scores presented to ED administrators and the DNP student QI team leader. The risk to patients who received the teach-back method of education was no different from the risks of patients when they received standard instructions. All data remained anonymous, kept in a lock file in the ED administers office, and was discussed only in the aggregate.

Conclusion

Teach-back is an evidence based, patient centered method of providing quality instruction to patients and families by taking into consideration their needs, values, wishes and health literacy levels. By utilizing teach-back to improve the quality of instructions provided in the ED the nurses left their patients with the tools they need to care for themselves upon discharge and to
know when and why follow-up was needed and as such there was an improvement in patient discharge satisfaction scores.

Based on the nurses’ success with using teach-back and perceived sustainability it will continue to be used by nursing staff for all patient teaching opportunities. It will be reviewed with all new nursing staff members and periodically reinforced by the leadership team. In the future consideration will be given to providing the physicians, nurse practitioners and physician assistants the same instructions on how and when to use teach-back. This will allow the entire emergency department team to improve the patient-centered care provided to all patients and family members in the ED.

As an increase in patient satisfaction scores was the goal of this project it is important to mention that the success was different from another study carried out in the ED setting that focused their teach-back intervention on patients deemed to have a low health literacy level. This project was a multifaceted, diverse QI team approach that focused on all patients being discharged from the ED. The implication for practice would be that all patients should receive teach-back instructions as part of their ED stay and discharge. As such the recommendation for replicating this quality improvement project would be to first involve the ED leadership and then the Quality Improvement and/or Professional Practice and Innovation departments, as needed, in order to gain the support and resources needed to implement a project that will involve all members of the ED healthcare team. The DNP student is available to consult about this project with anyone who is attempting to replicate the work. It will be presented at UMASS Amherst scholarship day and the student plans to submit abstracts for presentation at regional and national nursing conferences.
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Appendix A

Hospital Consumer Assessment of Healthcare Providers and Systems
Appendix B

Emergency Department Consumer Assessment of Healthcare Providers and Systems
Appendix C

Teach-Back Diagram

(Project RED, 2011)
Appendix D

Stakeholder Letter

The Miriam Hospital
A Lifespan Partner

September 5, 2017

Kristen Burke RN, BSN, CEN
65 Grove Street
Lincoln, RI 02865

Dear Kristen,

I am pleased that you have chosen The Miriam Hospital Emergency Department as the site to complete your Capstone practicum. In doing so, it is understood that you are planning to design, implement and evaluate the impact of an evidence-based programmatic intervention involving teach-back instructions to improve satisfaction scores. This is an excellent idea and a worthy project as part of our performance improvement initiatives.

As a valued staff member and dedicated life-long learner, I can’t think of a better person to pursue this work. Our leadership team is committed to working with you to see this project through.

Thank you in advance for this work. I look forward to working with you on this project.

Sincerely,

Denise Brennan RN, MSN, CNL
Director-Emergency & Endoscopy Services and IR Nursing
Appendix E

Teach-Back Education in the Emergency Department Setting

A. Introduction
   1. Presenter
   2. Purpose

B. Situation
   1. Decreasing discharge satisfaction scores, quantitative and qualitative

C. Background
   1. Likert scale, quantitative data
   2. Write in comments, qualitative data
   3. Joint Commission and Centers for Medicare and Medicaid services both require that patients receive discharge instructions that they understand

D. Assessment
   1. We do a lot of things well
   2. How do we know that they understand the instructions they get?

E. Recommendation
   1. Teach-back for all teaching opportunities
      a. All patients
      b. For improved compliance, outcomes and satisfaction

F. Teach-back
   1. Measure of how well a concept is taught by having patient say in own words
   2. If patient does not understand then re-teach the information in a way that the patient understands

G. Examples

H. Conclusion
   1. Use with all patients and family members
   2. Can teach throughout the visit and then request teach-back at discharge or use teach-back continuously throughout the ED visit
   3. Avoid medical jargon; use words that everyone will understand
   4. Speak slowly and make eye contact
   5. Meant to test nurses teaching not patient’s knowledge

I. Contact Information

J. References

(Agency for Healthcare Research and Quality, 2015; Centers for Disease Control and Prevention, 2016; Office of Disease Prevention and Health Promotion, 2008; The Joint Commission, 2010; The SHARE Approach, 2014)
Appendix F

Teach-Back Tips

TEACH-BACK TIP # 1
Slow down & speak slowly

No matter what you are teaching, make sure that you are speaking slowly and clearly so that the patient can understand what you are saying.

TEACH-BACK TIP # 2
Highlight or circle important or new information that you feel the patient needs to know.

In order to provide teach-back they can and should use the materials provided to them.

TEACH-BACK TIP # 3
Use plain language

Lumbar radiculopathy with paresthesia may make you sound smart but it does NOT mean anything to the patient.

Back pain with tingling is something that we can all understand.

TEACH-BACK TIP # 4
Talk to the patient NOT at them

Most of us prefer a conversation rather than a lecture.

TEACH-BACK TIP # 5
Teach as you go...

It is more effective for the patient to receive small amounts of new information over the course of the visit rather than everything they NEED to know while running out the door.

TEACH-BACK TIP # 6
Ask the patient to explain things in their own words AND/OR Use their discharge instructions to show they know how to access the information.

TEACH-BACK TIP # 7
Remember: It is NOT a test of the patient but rather a test of how well you explained a concept.

(Agency for Healthcare Research and Quality, 2015; The SHARE Approach, 2014)
Appendix G

Pre-Survey

INSTRUCTIONS - PLEASE READ CAREFULLY

The following is a short series of questions on the use of teach-back for patient education. On this inventory, you are asked to indicate your own personal opinions; there are no right or wrong answers and all answers will remain anonymous.

Please read each question carefully and decide how much you use or do not use teach-back to provide patient education. Then, using the Likert scale provided (Choices 1-5 below) in the columns to the right of each question, indicate your response by placing an X in the column space most representative of your opinion (1=Not at all through 5= Very or always). Please give a response for each of the items, leaving none blank, but mark only one response choice per item.

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<tr>
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(Jamieson, 2018)
Appendix H

Post-Survey

INSTRUCTIONS - PLEASE READ CAREFULLY

The following is a short series of questions on the use of teach-back for patient education. On this inventory, you are asked to indicate your own personal opinions; there are no right or wrong answers and all answers will remain anonymous.

Please read each question carefully and decide how much you use or do not use teach-back to provide patient education. Then, using the Likert scale provided (Choices 1-5 below) in the columns to the right of each question, indicate your response by placing an X in the column space most representative of your opinion (1=Not at all through 5= Very or always). Please give a response for each of the items, leaving none blank, but mark only one response choice per item.

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(Jamieson, 2018)
Appendix I

IRB Not Human Subject Research Determination

MEMORANDUM – Not Human Subject Research Determination

Date: September 25, 2017
To: Kristen Burke, Nursing

Project Title: Improving Patient Discharge Satisfaction Scores by Implementing Teach-Back Instructions in a Community Hospital Emergency Department (ED): A Quality Improvement Project

IRB Number: 17-164

The Human Research Protection Office (HRPO) has evaluated the above named project and has made the following determination based on the information provided to our office:

☐ The proposed project does not involve research that obtains information about living individuals.

☐ The proposed project does not involve intervention or interaction with individuals OR does not use identifiable private information.

☒ The proposed project does not meet the definition of human subject research under federal regulations (45 CFR 46)

Submission of an IRB application to University of Massachusetts Amherst is not required.

Note: This determination applies only to the activities described in the submission. If there are changes to the activities described in this submission, please submit a new determination form to the IRPO.

Please do not hesitate to call us at 413-545-3428 or email humansubjects@ora.umass.edu if you have any questions.

Iris L. Jenkins
Iris L. Jenkins, Assistant Director
Human Research Protection Office