RESPECT: Reducing 30-day Emergency Department Visits and Readmissions of Bariatric Surgical Patients Effectively Through Cultural Competency Training of Nurses

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Abstract
The purpose of this translational study, conceptualized within Leininger’s Culture Care Theory and the Reducing Avoidable Readmissions Effectively (RARE) campaign, was to determine whether educational strategies to enhance culturally congruent nursing discharge process would reduce 30-day Emergency Department (ED) visits and readmissions for bariatric surgery patients of a Midwestern U.S. teaching hospital. This mixed-method quality improvement (QI) study incorporated pre and post testing of the online cultural competency course entitled “Course I: Delivering Culturally and Linguistically Competent Nursing Care;” two-month pre/post implementation chart reviews of nursing documentation, 30-day ED visits and 30-day readmissions; as well as content analysis of nursing comments and feedback to open ended questions. The project successfully educated the participants and enhanced culturally competent discharge process. Additional studies are needed over a prolonged time span to determine statistical significance of project’s effect on 30-day ED visits and readmissions.

Keywords
bariatric, emergency department, readmissions, cultural competency, quality

Introduction
Obesity has been classified as a disease, a growing crisis, and an epidemic in the United States (U.S.) (Center for Disease Control and Prevention [CDC], 2013b; Office of the Surgeon General-U.S. Department of Health and Human Services [OSG-DHHS], 2012). Because obesity affects numerous pathophysiological states, multifactorial interventions are required to address its prevention and treatment (American Medical Association House of Delegates [AMA], 2013). Obesity has been linked to more than 40 diseases and is the fastest growing cause of disease and death in the U.S. (OSG-DHHS, 2012). Obesity is diagnosed in patients with a body
mass index (BMI) higher than 30 kg/m2 (CDC, 2013b) and is classified according to severity. Patients with a BMI of 40 kg/m2 or higher are diagnosed with morbid obesity (CDC, 2013b), which is the severest form and most challenging to treat.

Bariatric surgery is a proven safe and effective treatment for morbid obesity resulting in significant weight loss and health benefits (American Society of Metabolic and Bariatric Surgery [ASMBS], 2013; Chopra et al., 2012). As with any surgery, bariatric surgery has associated risks requiring comprehensive patient education (ASMBS, 2013). Nurses play a significant role in educating patients to transition home safely (Gozdzialski, Schlutow, & Pittiglio, 2012). Healthcare reform has given national attention to 30-day Emergency Department (ED) visits and readmissions after surgery as an indicator of quality care, effective discharge planning, and efforts to decrease healthcare cost (AHIP Center for Policy and Research [AHIP], 2010). To address this national priority, comprehensive transition programs are needed to help healthcare providers guide patients safely from one care setting to another (AHIP, 2010).

A health disparity “generally refers to a higher burden of illness, injury, disability, or mortality experienced by one population group relative to another group” (Kaiser Family Foundation [KFF], 2012). The cultural dynamics of caring for patients with health disparities can present unique challenges for caregivers and place these patients at a higher risk for poorer outcomes (Centers for Disease Control and Prevention [CDC], 2013a). Additionally, culturally incompetent care and a fragmented healthcare system have been shown to negatively affect patient outcomes (Institute for Clinical Systems Improvement, the Minnesota Hospital Association and Stratus Health [ICSIMHASH], 2014).

This quality improvement (QI) translational research project aimed to address an identified clinical concern at a large urban teaching hospital in the Midwestern U.S., where high rates of 30-day postoperative ED visits and readmissions of bariatric surgical patients were noted. In 2014, 84.74% of the hospital’s bariatric surgery patients were female, and 67.37% were African American (Michigan Bariatric Surgery Collective [MBSC], 2014). Being female, obese, and African American are contributable health disparities (CDC, 2013a) making the majority of patients being cared for at this hospital’s bariatric service at higher risk for poor outcomes and in need of specialized care.

Purpose and Goal

The project’s purpose was to explore, discover, and document whether instituting creative evidence based educational strategies to enhance culturally congruent care delivery by the bariatric surgical nurses would affect nursing behavior and consequently, affect patient outcomes in a large, urban Midwestern teaching hospital. The goal of this QI translational research project was to reduce bariatric surgery patients’ 30-day postoperative ED visits and readmissions by educating bariatric nurses about cultural factors affecting patients, and implementing a comprehensive, culturally congruent discharge process incorporating industry best practices.

Review of the Literature

Bariatric Surgery

The growing problem of obesity has prompted an increase in bariatric surgeries (Gadler, Gardiner, & Martinez, 2014). Such surgeries have revolutionized the treatment of morbid obesity (Chopra et al., 2012) by producing effective, long lasting weight loss as well as preventing, improving, and resolving many comorbid health conditions (ASMBS, 2013). While a meta-analysis conducted by Admiraal et al. (2012), showed that bariatric surgery remains the most effective tool for significant long-term weight loss, it is less effective for African Americans than Caucasians for unknown reasons. Further studies are needed to compare the effectiveness
of bariatric surgery among various ethnic and racial groups as the literature is lacking in this area (Admiraal et al., 2012).

Despite dramatic safety improvement measures in bariatric surgery over the past decade (Morton, 2014), some postoperative complications are inevitable. A comprehensive bariatric surgery program includes in-depth patient education about postoperative complications, warning signs, and when and where to seek post-discharge treatment (ASMBS, 2013). Key predictors of quality care for bariatric surgery patients include the prevention, early detection, and treatment of postoperative complications (ASMBS, 2013). Additionally, cultural competence is recognized as essential to successfully assist patients through care transitions (National Transitions of Care Coalition [NTCC], 2015). Unfortunately, hospitals serving high risk patients are at an economic disadvantage to providing quality care and are unlikely to benefit from quality metric reward programs which further limits their resources (McKinney, 2012).

**Hospital Readmissions**

Hospital readmissions are a clinical concern and major economic drain on society and the U.S. healthcare system (Anderegg, Wilkinson, Couldry, Grauer, & Howser, 2014). Additionally, hospital readmission rates are used as an indicator of healthcare quality and efficiency (CDC, 2013a; Kocher, Nallamothu, Birkmeyer, & Dimick, 2013). Two factors found to contribute to postoperative readmissions include shorter length of stay and increased number of postoperative complications (Kohlnhoferer, Tevis, Weber, & Kennedy, 2014). Premature discharges and transfers to improper environments are associated with increased readmissions and inappropriate use of costly resources such as the ED (Alper et al., 2015). A national cohort study suggested that interventions addressing the causal factors of racial disparities could promote higher quality care and decrease readmission rates among vulnerable populations (Li, Glance, Yin, & Mukamel, 2011). The literature lacks studies examining relationships between bariatric surgery readmissions, health disparities, and cultural incompetence.

**Postoperative ED Visits**

According to Kocher et al. (2013), ED visits are the most common source of unscheduled hospitalizations. Like hospital readmission rates, postoperative ED visits serve as an indicator of healthcare quality and efficiency. While some ED visits are unavoidable (Kocher et al., 2013), many could be prevented by proper management of acute and chronic conditions (CDC, 2013a; Kocher et al., 2013). ED visits occurring after a recent hospital discharge often represent a failed opportunity to prepare patients to transition to their home environment and address the warning signs of acute conditions (Kocher et al., 2013; Rising, White, Fernandez, & Boutwell, 2013). The literature is deficient regarding bariatric surgery patient transitioning home and ED visits.

**The RARE Campaign**

The Reducing Avoidable Readmissions Effectively (RARE) campaign is a statewide initiative to reduce 30-day hospital readmissions that has gained national attention for its success in Minnesota when it exceeded its goal of reducing avoidable hospital readmissions by 20% in 2012 (ICSIMHASH, 2014). The RARE campaign identifies five key evidence-based strategies (ICSIMHASH, 2014) proven to reduce avoidable hospital readmissions which are:

1. comprehensive discharge planning
2. medication management
3. patient and family engagement
4. transition care support
5. transition communications

Because approximately 43% of hospital admissions originate from an ED visit (Debt.org, 2015), strategies to reduce readmissions, such
as the RARE campaign, may help reduce ED visits. The literature did not include any studies applying the RARE campaign strategies to bariatric surgical patients. This QI translational research project incorporated all five elements of the RARE campaign to address this identified gap in the literature.

**Leininger’s Culture Care Diversity and Universality Theory**

The project was guided by Leininger’s Culture Care Diversity and Universality Theory, also known as the Culture Care Theory (CCT). The CCT, an original nursing theory, has become an increasingly powerful and relevant guide for discovering and providing culturally sensitive and competent healthcare (McFarland and Wehbe-Alamah, 2015). The goal of the CCT is to assist clinicians to provide culturally congruent care to individuals and groups from similar and diverse cultures. Cultural congruence is the learning and use of cultural knowledge to affect care decisions and actions that fit within the values, beliefs, and lives of patients (McFarland & Wehbe-Alamah, 2015). Culturally congruent care promotes health and wellbeing and assists with illness, disability, or death. Cultural competence in healthcare refers to the provision of care that respects individual patients by taking into account their cultural needs, beliefs, and practices (McFarland & Wehbe-Alamah, 2015). On the other hand, cultural incompetence can lead to poor health outcomes as a result of misinterpretations, misjudgments, and misdiagnoses (Wilson, 2011). Nurses and other healthcare providers who understand their patients’ cultural concerns will be better equipped to deliver culturally congruent care (McFarland & Wehbe-Alamah, 2015).

Leininger predicted that the three culture care decision and action modes would guide nurses in the creative delivery of culturally congruent meaningful and helpful care to patients dealing with varying states of health, disability, illness, and death (McFarland & Wehbe-Alamah, 2015). Leininger’s three modes of culture care decision and action include assistive, supportive, facilitative, or enabling professional acts incorporating culture care preservation and/or maintenance of beneficial care beliefs and values; accommodation and/or negotiation to assist patients to adapt or negotiate culturally congruent safe care; and re-patterning and/or restructuring harmful health behaviors for better healthcare patterns, practices or outcomes (McFarland & Wehbe-Alamah, 2015).

**Study Design**

**Study Setting and Participants**

The study was conducted on a 25-bed medical-surgical unit for postoperative bariatric surgery patients. The unit was part of a large hospital that is affiliated with an academic institution located in an urban Midwestern city. The study participants were 17 registered nurses who met the two inclusion criteria of being employed at the hospital and being directly involved in the care of the bariatric surgery patient population during the project’s implementation.

**Method**

The study was a translational QI project utilizing a mixed method evaluation design. The researchers examined the hospital’s existing nursing and discharge practices for bariatric surgery patients in order to identify potential process improvements and cultural barriers to care. Using the information gained from this review, the researchers developed two QI strategies: 1) a new patient discharge process based on the CCT and the RARE campaign, and 2) a multifaceted educational program to improve nurses’ cultural competence and promote sustainable nursing behavior change. Quantitative measures were used to assess whether these strategies affected nursing behavior and reduced 30-day ED visit and readmission rates. Qualitative content analysis of bariatric nurses’ feedback from a bariatric surgical nursing
questionnaire revealed three themes with supporting patterns and descriptors. A detailed description of this project’s conceptualization and implementation is provided below.

**Conceptualization and Implementation**

The hospital’s pre-project nursing discharge process included giving patients an education booklet, a discharge medication list, postoperative instructions, follow-up appointment information, a follow-up telephone call schedule, and either a portion plate or an incisional splinting pillow. The new discharge process included a nursing documentation discharge checklist (Figure 1), developed by the researchers, that includes all nursing discharge tasks.

![Figure 1. Nursing Documentation Checklist for Bariatric Surgery Program Developed by Authors](image)

<table>
<thead>
<tr>
<th>Initial Nursing Assessment</th>
<th>Throughout Stay</th>
<th>Day of Discharge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elicited patient and family goals for hospital stay</td>
<td>Discussed patient questions</td>
<td>Reconciled medication list confirmed</td>
</tr>
<tr>
<td>Reconciled medications on admission with input from patient and family</td>
<td>Discussed family questions</td>
<td>Reviewed medication list with patient and family and used teach back</td>
</tr>
<tr>
<td>Conducted assessment of ability of patient/family to provide self-care at home</td>
<td>Gave patient copy of patient discharge checklist and explained how to use</td>
<td>New prescriptions filled and delivered to patient</td>
</tr>
<tr>
<td>Informed patient and family about steps to discharge</td>
<td>Reviewed discharge instructions</td>
<td>Follow-up appointment included on discharge paperwork</td>
</tr>
<tr>
<td>Informed patient and family about their role in postoperative recovery (ambulation, I/S, pain management)</td>
<td>Reviewed red flags / symptom recognition and management</td>
<td>Identified the caregiver at home and backups</td>
</tr>
<tr>
<td>Assessed for provision of culturally and linguistically appropriate care</td>
<td>Reviewed contents of discharge folder including discharge card, booklet and patient checklist</td>
<td>Arranged any home care needed</td>
</tr>
<tr>
<td></td>
<td>Used Teach Back</td>
<td>Gave discharge folder and tote bag</td>
</tr>
<tr>
<td></td>
<td>Confirmed follow-up appointment with surgeon has been scheduled</td>
<td>Informed patient and family about post discharge follow-up phone calls /confirmed patient contact information correct</td>
</tr>
</tbody>
</table>
Several of the items on the new discharge checklist were strategically selected by the researchers to enhance the culturally competent discharge process and incorporated the five key aspects of the RARE campaign that were previously discussed in the review of the literature. In addition, a newly designed folder and tote bag incorporated all of the following:

- a culturally competent updated discharge card with local urgent care center information
- a refrigerator magnet to display the updated discharge card
- an evidence based patient discharge readiness checklist
- a pen for patients to write follow up appointment information and fill out patient discharge readiness checklist
- an incisional splinting pillow
- a portion plate
- a hydration bottle
- a pill box

All study participants completed a total of three educational interventions consisting of an online intervention titled “Delivering Culturally and Linguistically Competent Nursing Care” [which will be henceforth referred to in this manuscript as the Online Cultural Competency Course] that can be accessed at [https://ccnm.thinkculturalhealth.hhs.gov/] and two separate live presentations entitled RESPECT and Putting it all Together. Both live presentations were videotaped so nurses could review material as needed and for new nurse employees to view as part of their job orientation. The hospital administration informed the bariatric surgical nurses that participation in the educational interventions was mandatory as part of a QI initiative. After participating in all three educational interventions, the nurses were encouraged, but not required, to provide narrative feedback by completing a seven-question open-ended questionnaire (Figure 2). The participants received several reminders in the form of emails, flyers, and a poster, to complete all three educational interventions and provide narrative feedback.

Figure 2. Qualitative Nursing Feedback Questionnaire

**Bariatric Surgical Nursing Staff Feedback Questionnaire: Project RESPECT [Spaces for answers removed]**

1. How has this project helped you assess your own cultural beliefs and practices as a person and as a nurse?
2. Of the holding knowledge presented, what do you find the most surprising?
3. What will you do differently to incorporate culturally competent care?
4. What barriers to delivering cultural competent care have you encountered in your practice?
5. What facilitates your delivery of culturally competent care to patients?
6. What do you find most valuable about this project?
7. What suggestions do you have for improvement of this educational program?
The first intervention—the Online Cultural Competency Course—was introduced to the participants on July 16, 2015 via institutional email. The email also provided the course’s link (https://ccnm.thinkculturalhealth.hhs.gov/), which included registration instructions, a timeline for completion, and a 10 question multiple choice Pretest/Post-test. The nurse participants were instructed to print and place the Pretest and Post-test results in a secure folder located in the unit manager’s office by August 10, 2015 and were informed that all test results would be de-identified. Major components of the Online Cultural Competency Course included education on cultural and linguistic competency, self-awareness, cultural awareness, health-related experience, patient centered care, and care approaches (OMH, n.d.). The nurses received three free continuing education (CE) credits for completing this online course. All of the 17 nurses who participated in the project completed the identical multiple choice Pretest/Post-test (OMH, n.d.), which was designed to assess cultural knowledge and retention of material learned from the Online Cultural Competency Course.

The second educational intervention was developed by the authors and consisted of a live PowerPoint presentation entitled RESPECT that included free, publicly accessible videos produced by the RARE campaign (http://www.rarereadmissions.org/) and Minnesota’s Health Literacy PowerPoint on the teach-back method (http://healthliteracymn.org/resources/presentations-and-training) and addressed the following:

- project goals
- site-specific program background (hospital bariatric program statistics)
- sources of typical transition care failures (cultural incongruence, failure to include patient/family, inappropriate discharge instructions/lack of care coordination, patient/family discharge education only at time of discharge, discharge medication issues, lack of patient resources, lack of patient adherence to self-care, inability to manage at home, follow up appointment issues, responsibility of follow up care only on patient, lack of emergency plan, poor documentation of hospital care, and medication discrepancies)
- the five key RARE campaign components
- teach-back method
- living room language (use of simple language without medical jargon--http://healthliteracymn.org)
- role playing (using teach-back)
- instructions for the project’s next steps

To accommodate participants’ schedules, the researchers presented RESPECT on three different occasions between July 29 and July 30, 2015. Nurses received one free CE credit for participating in the teach-back education.

The third educational intervention, also developed by the authors, was a live PowerPoint presentation entitled Putting it all Together and was presented three separate times on August 5th and 6th, 2015 to accommodate different participants’ schedules. The presentation included a review of the teach-back method and the RARE campaign as well as extensive training on delivering culturally competent care tailored to the bariatric program patient demographics. Specifically, the presentation covered:

- culturally competent nursing care (cultural competence versus cultural congruence)
- selected transcultural concepts (race/ethnicity, culture shock, cultural pain, ethnocentrism, cultural values, cultural practices, cultural imposition, culture specific care, culture care conflict, culture-bound syndromes, stereotyping, prejudice, discrimination, and racism)
- the CCT (purpose and goal)
- the three culture care decision and action modes (culture care preservation and/or maintenance; culture care accommodation and/or negotiation; and culture care repatterning and/or restructuring)
- application of Leininger’s Sunrise Enabler in bariatric surgery care (Figure 3)
- steps for achieving cultural competence (self-awareness and culture care, holding knowledge, application to clinical practice)
- transcultural communication principles (verbal/nonverbal communication, communication barriers, interpreters, simple language, introductions, addressing patients)
- healthcare disparities (African American, African American female obesity, socio-economic status, health insurance, food access, and environment)

**Figure 3. Sunrise Enabler**

The presentation also included holding knowledge/cultural trends regarding African American culture including but not limited to:

- spirituality (protective)
- distrust of the healthcare system (frequent/multifactorial)
- motivation (threat of illness, trust building, social support, culturally acceptable alternatives, and drive to maintain good habits once established)
- folk care (frequent)
- pain (expression of pain, caregiver bias, themes—spiritual meaning, descriptive, stoic coping, impact on functionality, mistrust, avoidance, and medication metabolism)

Additionally, participants received in-service training on the new discharge process, which emphasized the use of the new patient program materials and the patient and nursing discharge checklists. To promote project sustainability, recordings of the RESPECT and Putting it all Together presentations were loaded on the nursing intraweb so participants could review material as needed and so that new hires could view as part of their job orientation. Furthermore, after completing all of the three educational interventions, participants received a rotating message pen to reinforce some of the learning material and a patient tote bag as a gesture of appreciation.

All 17 study participants completed the three educational interventions by August 9th, 2015. The nurses were instructed to institute the new culturally competent discharge process on August 10th, 2015. Two months after all three educational interventions were completed, the authors reviewed several sources of data. First, the authors compared the Online Cultural Competency Course’s Pretest and Post-test scores.

Second, nursing documentation was reviewed on all bariatric charts in the electronic medical record (EMR) for a two-month pre-intervention and two-month post-intervention period. This review examined the preset criteria of 26 desired nursing behaviors that were embedded in the 22-item nursing documentation discharge checklist (Figure 1). Data were collected on all preset criteria and then grouped into five constructs consistent with the five key RARE campaign elements for evaluation purposes. The pre-intervention EMR review of nursing documentation was conducted for bariatric patient charts dated between May 14 and July 13, 2015. The charts of bariatric surgical patients treated during the educational interventions (between July 14 and August 9, 2015) were not reviewed. A post-intervention EMR chart review was conducted on charts dated from August 10 to October 8, 2015.

Third, two-month pre-intervention and two-month post-intervention EMR chart reviews were conducted to identify potential changes in postoperative ED visit and readmissions rates. The pre-intervention data were collected from patient visits dated from May 14 through July 13, 2015. Post-intervention data was collected from September 10 through November 8, 2015.

For the fourth data source, participant statements made during the live educational sessions were documented and the nurses were asked to complete a qualitative post-intervention evaluation survey, consisting of seven open-ended questions survey (figure 2) designed to evaluate the educational interventions and their perceived relevance and impact on clinical practice. Fifteen of the 17 nurses completed the survey. Content analysis was performed on all qualitative data by all four nursing researchers, two of which are considered experts in the field. All descriptive and inferential statistical analyses were performed using IBM SPSS™ V.21 and reviewed with a professional statistician for accuracy.
Institutional Review Board Waiver and Grant Funding

Because the study was deemed a QI project, exempt status was granted by the Institutional Review Boards of the University of Michigan-Flint with whom all four nursing researchers are affiliated, and by Wayne State University, which oversees the hospital where the study took place. Grant funding for partial support of this project was obtained from The Advanced Nursing Education Grant: University of Michigan Flint Strength Care to Underserved Populations (Health Resources and Services Administration (HRSA)/ U.S. Department of Health and Human Services (HHS) grant number D09HP2263).

Findings

Quantitative Findings

The project resulted in two statistically significant findings. First, all of the nurses demonstrated an increase in knowledge about the delivery of culturally competent nursing care as evidenced by a statistically significant improvement in pretest/post-test scores. A paired samples t-test performed on the Online Cultural Competency Pretest/Post-test scores from the 17 participants who completed both pretest and post-test showed a statistically significant improvement of scores (pre mean of 44.12 with std. deviation of 12.78 to a post mean of 92.35 with std. deviation of 12.01; p<0.001; t = -12.826) (Table 1). The second statistically significant

Table 1. Pretest and Posttest Scores of the Online Cultural Competency Course: Delivering Culturally and Linguistically Competent Nursing Care

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<thead>
<tr>
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<th>Pretest</th>
<th>Posttest</th>
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<tbody>
<tr>
<td>Mean Scores</td>
<td>44.12%</td>
<td>92.35%</td>
</tr>
</tbody>
</table>

Delivering Culturally and Linguistically Competent Nursing Care: Comparison of Pretest and Posttest Scores
finding was a positive nursing behavior change of incorporating the new culturally competent discharge process into practice. This was evidenced by independent t-test results from pre- and post-intervention nursing behavior documentation showing a statistically significant improvement in the use of each of the five key RARE constructs (total pre mean of 8.78 to total post mean of 25.66; p<0.001; t = -68.31) (Table 2).

Over the two-month pre-intervention period, the Bariatric Surgery unit treated 55 patients. Of these, 10 (18.2%) visited the ED within 30 days of surgery, seven (12.7%) visited the ED once and three (5.5%) visited the ED twice. Over the two-month post-intervention period, the unit treated 56 bariatric surgical patients. Of these, six (10.7%) returned to the ED once within 30 days of surgery and none had multiple visits. Data was not collected regarding the reason for ED visits. A Chi Square test of the percentage of pre- and post-project 30-day ED visits did not demonstrate statistical significance (mean of 18.2% pre to 10.7% post; p = 0.395). However, a clinically significant improvement was documented, as there was an overall reduction in 30-day ED visits over the two-month period.

Of the 55 pre-intervention patients, three (5.5%) were readmitted to the hospital within 30 days of surgery and one (1.8%) was readmitted twice within 30 days of surgery. Of the 56 post-intervention patients, five (8.9%) were readmitted within 30 days of surgery and none were readmitted more than once. Data was not collected regarding the reason for readmissions. The Fisher’s Exact test performed on the percentage of pre- and post-intervention readmissions showed no statistically or clinically significant (mean of 5.5% pre to 8.9% post, p = 0.716) improvement over the two-month period.

Table 2. Independent Samples Test - comparing nursing documentation of the 5 key components of RARE strategies pre and post implementation of three educational interventions

<table>
<thead>
<tr>
<th>RARE Strategies</th>
<th>t-test for Equality of Means</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>t</td>
</tr>
<tr>
<td>Comprehensive Discharge Planning</td>
<td>-33.472</td>
</tr>
<tr>
<td>Medication Management</td>
<td>-20.854</td>
</tr>
<tr>
<td>Patient and Family Engagement</td>
<td>-109.000</td>
</tr>
<tr>
<td>Transition Care Support</td>
<td>-49.065</td>
</tr>
<tr>
<td>Transition Communications</td>
<td>-68.953</td>
</tr>
<tr>
<td>Total</td>
<td>-68.308</td>
</tr>
</tbody>
</table>
Qualitative Findings

Three major themes were discovered from the content analysis of qualitative data. These themes and their supporting patterns and descriptors were derived from the nurses’ responses on the feedback questionnaire and statements they made during the live educational sessions.

Bariatric surgical nurses caring for patients with health disparities possess a sense of pride in their profession despite numerous encountered challenges. One supporting pattern for this first theme that was discovered is: the nurses expressed challenges in working with patients possessing limited education and resources, but their professional pride helped them address these perceived barriers effectively. For instance, several nurses expressed feelings of being shocked and upset when they were informed that according to the MBSC (2014), their hospital ranked in the bottom 10% of the bariatric hospitals in the state regarding 30-day post-operative ED visits and readmissions. The nurses expressed how hard they worked to care for their patients despite having patients who were challenging to teach. In addition, the nurses expressed a desire and commitment to educate their patients to positively impact their recovery and overall health. A supporting descriptor is “Our patients are harder to care for...those numbers don’t give us credit for all our hard work trying to teach these patients...Oh, we are going to fix that!”

Another pattern that supports this theme is: A caring attitude was viewed as a useful tool to address professional challenges. This pattern is consistent with several aspects of Leininger’s CCT stating that care—an abstract and/or concrete phenomenon to assist, support and enable others towards healing and wellbeing—is the essence and unifying focus of nursing as there can be no curing without caring (McFarland & Wehbe-Alamah, 2015). For instance, when faced with difficult challenges on the unit, the nurses expressed relying on their nursing roots in order to overcome these difficulties and give patients the care they needed. A supporting descriptor is: “time constraints due to patient load makes it difficult at times to give my clients the time they need for the education it takes to help them make the changes necessary. I think my empathy, my compassion, and my desire to make a difference in the lives of the clients I care for is what facilitates my delivery of culturally competent care...”

Bariatric surgical nurses perceive cultural competence as an ongoing process rather than a completed outcome. One supporting pattern for the second theme discovered is: the nurses embraced culturally competent care delivery. For instance, there was an expressed initial overall lack of awareness to the potential negative effects of giving care that is not culture-specific. However, after participating in the QI project, the nurses acknowledged realizing that embracing culturally competent care delivery is a necessary part of nursing care that affects patient outcomes. Supporting descriptors of this pattern were expressed as “I was surprised at how unaware I really was to cultural differences.” and “I will be more in tune to my patient’s needs based on their culture.”

A second pattern that supports this theme is: bariatric nurses acknowledged cultural competence as a process requiring increased awareness, collaboration and continued learning. The nurses stated that they became aware that they had more work to do individually and together as a team, in order to enhance their delivery of culturally competent care. Supporting descriptors include: awareness that “patients will benefit from us learning to give culturally competent care;” stated intentions to “actively incorporate support, collaboration with staff members to encourage awareness of cultural diversity with patients;” and expressed desire for increased continuing education as “…it makes you more aware of what patients’ needs are based on their
culture.”

**Bariatric surgical nurses perceive a lack of resources as a barrier to delivering culturally competent care.** One supporting pattern for the third pattern found is: **bariatric nurses identified lack of time, staffing issues, culture-specific items, and lack of education and leadership support as significant barriers to practice.** The nurses expressed concern that patient care was suffering due lack of resources and support from leadership. Supporting descriptors include “…time to talk to patients to teach effectively is minimal, which is crucial in delivering culturally competent care.” Nurses also noted the need for “… staff to spend more time” and “… resources to provide culturally competent care.” The second pattern of theme III is: **the perception of disjointed outpatient and inpatient education, collaboration, and coordination were viewed as barriers to care.** The nurses verbalized frustration that the patients did not seem to be adequately prepared pre-operatively from the outpatient setting and felt that the project should be expanded to include all staff who take care of bariatric patients. Supporting descriptors include: “We get a lot of patients that state they were never told of the post-op requirements. We should be the last line of education, not the first” and “This really needs to start before the patients gets here…like in the office.”

**Discussion**

The need to decrease high levels of 30-day ED utilization and readmissions for post bariatric surgery patients at this study’s setting prompted this translational research study. The literature supported that healthcare disparities, cultural incongruence, and a fragmented discharge process affect patient outcomes and are areas in need of quality improvement. Strategic implementation of this QI initiative project required analysis of existing nursing behaviors, current discharge processes and potential cultural barriers to care. An updated discharge process tailored to the hospital’s patient demo-
of resources as a barrier to delivering culturally competent care. The nurses’ responses showed their professional pride through expressed desire to care for their patients, willingness to learn, and willingness to apply learned cultural factors into patient care despite daily challenges. According to Sorensen & Hall (2011), nurses often use the expression of needing to see the big picture which indicates pride through desire and sense of responsibility to achieve clinical excellence. Seeing the big picture is a virtuous indication of human and professional nursing pride which stabilizes the nursing profession (Sorensen & Hall, 2011). Leininger’s Sunrise Enabler (figure 3) can be also be applied to the theme of nursing pride despite multiple care challenges as nurses strive to see the larger picture to guide their professional care practices though consideration of multiple worldview influences (McFarland & Wehbe-Alamah, 2015).

The nurses’ perception of cultural competence as an ongoing process has been also described as such in the literature by Green (2012). In addition, developing cultural competency is not a single achievement, but instead consists of a series of stages that evolve over time (OMH, n.d.). Assumptive premises of Leininger’s CCT support the second themes discovered in this study as culturally congruent care takes place when culture care, values, beliefs, expressions and patterns are well known and applied appropriately to care for people of all cultures (McFarland & Wehbe-Alamah, 2015).

The nurses’ expression of inability to give culturally congruent care due to lack of resources demonstrated significant frustration. The nurses verbalized that lack of cultural knowledge, language barriers, educational level of patients, lack of time, limited patient diet choices, communication barriers, and staffing issues are barriers to culture care. This QI project has addressed some of these concerns and supported the continued efforts towards encouraging the process and journey of cultural competence. However, having management look into ease
of accessibility of translator services, culturally sensitive diet choices, patient materials at varying educational levels and appropriate patient-staff ratios may help further address expressed nursing concerns. According to Kitson, Athlin, & Conroy (2014), nursing’s quest to meet basic patient needs is complex because it requires the ability to develop meaningful relationships and engage with the patient. This relationship is based on the nurse’s commitment to ensure the patient’s fundamental needs are met in respectful acknowledgment of each patient as a unique human being.

**Limitations**

The project has several limitations including QI mandated participation in the educational sessions, nurse turnover rate on the unit, non-probability sampling, and the project’s timeframe. The fact that the nurses were required by their employer to participate in the educational aspects of the project, due to its QI nature, may have affected nursing behaviors. For example, requiring participation could have affected test scores. Even though identifiers were removed from the data, nurses may have worked harder to achieve a reasonable post-course test score over concern that a low score could affect their evaluations. In addition, the Hawthorn effect should be considered as a study limitation because the participants were made aware of the project and may have strive to perform better in response to participation in research (Polit & Beck, 2012b). For example, the responses to the nurses’ feedback questionnaire could have been affected, as the nurses may have felt obligated to respond positively and been less forthright with their responses due to knowing they were involved in a research project. Additionally, the researchers cannot officially determine whether nurses changed their behaviors to avoid potential employment-related discipline or out of a desire to change.

Nursing turnover was also a project limitation as several nursing staff members, the researchers’ identified nurse project champion, and the unit clinical manager were no longer working on the unit by project’s end. Though the data regarding the Online Cultural Competency Course Pretest and Post-test occurred with the same participants, the nurses working on the unit by the end of the data collection were not the exact same 17 nurses at project start. Five study participants left by project end, meaning 12 of the original 17 study participants remained by the end of the data collection period. Additionally, the bariatric unit hired several more nurses for a total of 22 staff nurses working on the unit by data collection end. Also of note, the five staff nurses who left the unit were all from the day shift when most of the discharge education occurs. Though the new hires were required to complete the Online Cultural Competency Course and watch the recorded videos of the two face to face presentations on the intraweb, nursing turnover could have affected outcomes for 30-day ED visits and for readmissions. A positive aspect of the increased staffing is that it addresses one of the expressed concerns of lack of staffing resources as a barrier to delivering culturally congruent care as identified by the nurse informants, however post intervention data may have been affected as a result.

Nonprobability sampling is less likely to produce representative samples than random sampling which could also be considered a study limitation (Polit & Beck, 2012c). A nonprobability consecutive sampling method was used, in regards to the bariatric surgical nurses, which enlists people who meet eligibility criteria over a specific time frame from an accessible population (Polit & Beck, 2012c). Consecutive sampling is the best possible choice when there is rolling enrollment (Polit & Beck, 2012c) and was necessary due to the QI nature of the project. The sample participants represent the population of nurses on the unit the project was instituted, but does not necessarily represent the power of a larger population sample (Polit &
Beck, 2012c) such as all bariatric surgical nurses statewide or nationwide. In regards to pre/post ED visits and readmissions as a general rule, using the largest possible sample size reduces sampling error (Polit & Beck, 2012c).

The project time period was also a project limitation. Some attrition of study participants is often expected, but large rates of attrition typically happen when longer periods of time occur between data collection points. Attrition is often handled by researchers by obtaining a larger number of participants at the beginning of the study (Polit & Beck, 2012b). Due to the QI nature of the project for the bariatric program, a larger population was not a feasible option. According to Polit & Beck, (2012a), all projects have timeline limitations which can potentially affect their strength and generalizability. Although statistically significant results related to nursing behavior change were demonstrated in this project, it is unclear whether the two month time period is sufficient. More time is needed to evaluate whether the project will produce long term sustainable results in regards to nursing behavior despite efforts to promote sustainability throughout the project. Additionally, more time is needed to determine statistical significance regarding 30-day postoperative ED visits and readmissions.

Directions for Future Research
Collection of data for 30-day ED visits and readmissions over a 12 or 18-month period likely will be more effective for evaluating the project’s statistical significance. The original RARE campaign study lasted 18 months between July 1, 2011 and December 31, 2012 (ICSIMHASH, 2014). The researchers also recommend further investigation of the nurses’ perceived lack of resources as a barrier to the delivery of culturally competent care. Duplicating the study in a context that does not require mandatory nurse participation as part of a QI project may change outcomes or support this study’s findings. Future studies are needed to examine the impact of health disparities and culturally incompetent care on bariatric surgery 30-day ED visits and readmissions. Further studies investigating the impact of transition care programs with application to the bariatric surgical population regarding ED visits and readmissions are also needed. This QI project only collected rates and number of occurrences of 30-day ED visit and readmission data post bariatric surgery. Studies examining cultural factors, health disparities, rationale, and the appropriateness of ED visits and readmissions would be valuable.

Implications for Practice
Because nurses provide most of the discharge teaching, this study focused on the bariatric surgical nurses. However, due to the limited time bariatric patients spend in the hospital after surgery, administrators should consider sharing the coordinated discharge process with other hospital professionals who work with this population including outpatient providers. Doing so could help ensure bariatric surgery patients receive the information they need no matter which provider handles their discharge process.

This translational research project used multiple venues to educate nursing staff and promote a cultural competent discharge process improvement. An educational approach that combines online and face to face education, resources, and discussion should also be considered for patient education, because patients may have different learning styles and may not always be ready to learn or accept information when it is convenient for staff to teach them. For example, video presentations and group instruction interventions may be more effective when added to written educational materials (Forsetlund et al., 2009).

The issue of nursing retention, turnover rates, and leadership concerns were brought to the forefront during this project as several nurses and the nurse manager resigned during the two-month post educational interven-
According to Hunt (2013), the strength of the nursing profession is demonstrated in its ability to deliver safe and efficient high quality care; improved patient care outcomes; and patient centered care. Additionally, high nursing turnover rates can threaten nursing care quality and increased nursing and management interaction can lead to increased job satisfaction. Nursing retention programs are crucial to improve patient safety and patient care outcomes as there is a reciprocal relationship between patient and nurse job satisfaction (Hunt, 2013).

This project only required the nurses to complete one online course: “Delivering Culturally and Linguistically Competent Nursing Care,” which is the first of three available online courses and the one that best fit the purpose and goal of this study. The nurses who participated in this study were informed there were two other online courses including “Providing Effective Communication and Language Assistance Services” and “Supporting Culturally and Linguistically Competent Organizations,” which would provide a total of nine free CE credits, but were not required for this specific QI project. System-wide implementation of all three of the online nursing cultural competency courses has the potential to improve culturally competent nursing care throughout the hospital system.

An additional consideration regarding cultural competence is to advise, or require, advanced practice providers to complete a cultural competency course designed for physicians, physician assistants and nurse practitioners titled: “A Physician’s Practical Guide to Culturally Competent Care,” which is available at https://cccm.thinkculturalhealth.hhs.gov (OMH, n.d.). Expanding the project to include cultural competency training for all bariatric surgical providers in the inpatient and outpatient setting may ameliorate the provider-patient experience through enhanced communication, increased cultural competency, and improved patient outcomes. Using a collaborative approach and encouraging an environment that embraces and fosters cultural competency may alleviate some of the burden the nurse informants expressed regarding heavy patient load and limited time to include the necessary amount of discharge education during the short post-operative stay. Addressing causal factors of racial disparities, through a collaborative approach, could promote higher quality care and decrease hospital readmission rates among vulnerable populations (Li, Glance, Yin, & Mukamel, 2011).

Conclusion

The growing crisis of obesity in the U.S. has prompted many patients to choose bariatric surgery as their weight loss tool of choice which has effectively revolutionized the treatment of severe obesity (Chopra et al., 2012). Healthcare providers cannot provide safe and effective care without meeting their patients’ cultural needs (Wilson, 2011). Cultural competence is recognized as an essential part of caring for patients and is needed to successfully assist patients through different care transitions (NTCC, 2015). This study attempted to translate the theoretical components of Leininger’s CCT and the five key aspects of the RARE campaign components into practice to enhance culturally competent nursing care and improve the discharge process of bariatric surgery patients with the long-term goal of reducing 30-day ED visits and hospital readmissions.

Additional studies are needed to discover whether continued use of the principles of the RARE campaign, enhancing cultural competency and coordinating discharge process will be statistically significant regarding 30-day ED visits and readmissions for bariatric surgical patients. Transferability of these principles may potentially exhibit successful application to other patient populations at risk for post-procedure complications. To assess longitudinal or long term project impact, it will be necessary for the hospital to institute measures to promote sustainability of the project. This can be...
achieved by continuing to provide project materials, instituting strategies to address perceived barriers to quality nursing caregiving, and requiring newly hired employees to complete the online cultural competency course and view the recorded educational sessions which will empower nurses to provide culturally congruent care to their patients throughout their hospital stay and discharge process.

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