14th Annual Research Day Conference
Innovations and Outcomes in Health Care
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1. A Collaborative Approach in Promoting the Nursing Profession to Minority Paraprofessionals in an Academic Medical Center

Presenters
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Abstract
The current professional nursing workforce in the USA is predominantly white and female, even though minorities comprise 33% of the national population (Travers, Smaldone, & Gross Cohn, 2015). Minority patients are more effectively cared for when their particular cultural milieu is taken into consideration as part of their healthcare plan (Sullivan, 2004). Minority professional nurses are necessary to fill this gap. Robert Wood Johnson University Hospital (RWJUH) in collaboration with Rutgers University School of Nursing (RUSON) implemented a program; New Paths to Professional Nursing (NPPN) to increase the number of minority professional nurses in practice at RWJUH. The NPPN provided financial resources as well as institutional, group and personal support for RWJUH minority paraprofessional employees who desired to complete perquisites in order to enter RUSON. The academic success of the employees who participated in NPPN was attributed to a unique combination of financial assistance,
support and encouragement. This research suggests these three factors were the key to success for the NPPN minority students.

*Keywords:* minority nurse, encouragement, paraprofessional
2. A Spoonful of Education Makes the Medicine Go Down

Objective One:

Change the culture of how nurses approach medication education and their side effects for patients and families.

Objective Two:

Provide the nurse as teacher with the appropriate tools to support patient medication education.

Purpose of Study:

Description/background: Given the importance of medication education, our goal was to modify practice patterns of nurses, related to patient education about medication. Evidence supports the use of verbal information reinforced with clear written communication when teaching patients. The nurse, as teacher, must feel confident, knowledgeable, and have the appropriate tools to support patient education. This quality improvement project spanned three years. Interventions included: gathering data with a staff survey, focus groups, identifying and developing multiple education resources, engaging patients, and tracking our progress using the HCAHPS scores.

Abstract:

The Medication Education Domain Team and the Patient Education Committee partnered developing a support structure incorporating medication and side effect education into the nurses’ daily routine. One focus was a visual branding carried throughout the hospital. All real estate was maximized: screen savers, nursing unit posters, hallway signs, and dietary tray liners. This initiative was met with limited adoption by the nurses at first. Modifying our approach, each nursing unit partnered with pharmacy to identify the most frequently medications. Each service line now has the one page medication side effects teaching aide to attach to the medication reconciliation sheet at discharge. The handout criteria demanded adherence to health literacy principles and the common medication side effects content was evidence based. Success was achieved with the development of a
medication education side effects one page template now used house-wide. The handout has evolved to include a quick read bar code next to the medication. This allows the patient to access the additional information with a smart phone. The greatest impact resulted when verbal information was reinforced by written information about medication and side effects. Previously, patients were hearing the words ‘medication side effects’ but did not remember the teaching session. Providing a written resource reminds the patient of the teaching.

HCAHPS scores related to Medication Education increased from 53% (2013) to 60.5 (2016). Sustained high performance demands constant innovation with our patient education tools. We continue to recognize the bedside nurse as a primary educator of patients.

Primary Presenter:

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3. Changing to VAD Dressing Kits Yields Positive Results and Reduces Out of Pocket Expenses

**Background:** Left ventricular assist device (LVAD) therapy has become an increasingly common form of treatment for patients suffering from end stage heart failure. LVADs can pose significant challenges for patients including infection, bleeding and decreased quality of life (Miller, et al., 2012). Infection of the driveline exit site (DLES) remains one of the most difficult to conquer. Many factors have been attributed to this including caregiver error, frequency of changes, type of wound cleaning agent, as well as type of occlusive dressing.

**Purpose:** The purpose of this study was to determine if the use of standardized VAD dressing kits reduced the incidence of infection compared to traditional, multi-component dressing changes over a six-month period of use.

**Methods:** The quality improvement study was framed within the Rosswurm and Larrabee Model for Evidence Based Practice Change. This model provides a framework that allows the clinician to implement evidence-based change into practice (White & Dudley-Brown, 2012). Thirty patients/caregivers and approximately 40 nurses from four cardiac units were educated on the use of the new kits using the teach-back method. The new kits were designed to contain fewer components, increased ease of use, decreased risk of contamination as well as reduced cost and waste. Once mastery of the new kits were demonstrated by both nurses and patients, the patients began using the kits, and the tracking of infection rates began. Infection rates were tracked for a 6 month period and then compared with the Center's infection rate as reported in the national VAD Registry,
Intermacs. Driveline exit sites were considered infected if a positive DLES culture was obtained.

**Results:** At the end of the six month period post-implantation, the Center's DLES infection rate decreased from 2.34 to 1.82 (per 100 patient month). Of 15 patients using the new kit, none had a DLES infection during in the post implementation period, as compared to a cumulative 22% DLES infection rate pre dressing kit implementation. In addition, the use of the kits has substantially reduced costs to patients by eliminating out of pocket expenses for items not covered by Medicare. Estimated savings of $400.00/month were realized for each patient.

**Conclusion:** The implementation and use of VAD dressing kits in place of a traditional individual component dressing protocol substantially lowered infection rates at this Center. An unexpected result was a reduction in out of pocket expenses for patients.


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4. Nursing Education: Discharge Planning Best Practice

Acute care hospital nurses’ lack of knowledge in nursing discharge best practice has been correlated to decreased quality of care resulting in poor patient outcomes. Adverse events related to poor discharge practice included patient safety issues, decreased patient satisfaction, increased length of stay (LOS), readmissions, increased morbidity and mortality, and increased healthcare costs. The aim of this project was to decrease the prevalence of negative patient outcomes and adverse events related to the acute care nursing discharge process. The purpose of this project was the development, implementation, and evaluation of an effective nursing educational module in nursing discharge evidence-based best practice standards. The educational project was designed with identified learning objectives (LO) following a learning needs assessment (LNA) and a review of evidence-based practice and educational standards. Following implementation of the project with hospital staff nurses, evaluation of outcome measures revealed the project goal was met with a mean gain in knowledge of 53% and stated LOs were met by 76% of participants, overall. In addition, a mean 90% rated the educational module as excellent, overall with 100% rating that they met the stated LOs of the course. The project should be replicated on a larger scale to determine reliability and validity.

Furthermore, a longitudinal study is recommended to determine if specific continuing nursing education (CNE) in DPBP is associated with positive patient outcomes post discharge from the acute care setting.

Keywords: nursing discharge planning best practice and standards, patient-centered-care, discharge planning process, nurse discharge process

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5. Eliminate the Chest X-Ray - Is it Really Possible? Implementing an Evidence-based Practice (EBP) change with Nurse led Peripherally Inserted Central Catheter Insertions.

Objective

The learner will identify an alternative to chest x-ray for terminal PICC tip placement verification.

Purpose of Study

Advances in modern medicine has allowed for the development of many types of central catheters, including peripherally inserted central catheters (PICC). Post insertion chest x-rays have long been considered the gold standard for terminal tip placement verification. Chest x-ray readings are dependent on patient positioning during exposure and subjectivity of the interpreting radiologists, often leading to increased malposition rates for terminal tip placement verification. Using an individual’s electrical activity of the heart to guide appropriate placement of catheter tip can be safe and cost-effective alternatives to chest radiography. Nurse-led PICC insertions using electrocardiographic waves for tip verification was explored.

Abstract

An extensive literature review suggests that utilizing an individual’s electrical activity of the heart to guide appropriate placement of central venous catheters, including PICC lines, can be a safe, cost effective alternative to chest radiography. Proper terminal tip placement of central venous catheters is defined to be within the lower one third of the superior vena cava (SVC) or junction of the SVC and right atrium. In January through February 2015, a two campus community hospital implemented a pilot wherein trained vascular access nurses performed PICC insertions using electrocardiographic (EKG) guidance for tip placement. The goal of implementing evidence based practice (EBP) changes at the facility was to reduce malposition rates, patient exposure to radiation, and delay in initiating treatment. All nurse-led PICC insertions using the EKG tip confirmation system were followed with post insertion chest x-ray confirmation. A total of 51 catheters were placed during the pilot. Two catheters were malpositioned into the
right atrium, demonstrating a 96% accuracy rate. An additional 417 PICC lines were inserted using the EKG tip confirmation followed by post insertion chest x-ray between February and September 2015 to determine sustainability of nurse-led competency. The results demonstrated 97% of catheter tips in the SVC or junction of the right atrium. Outcomes of the pilot allowed for transitioning from placing PICCs using EKG coupled with post insertion chest x-ray to placing PICCs with EKG guidance alone. Goals of the pilot were obtained and implementation of this evidence based practice change was established.

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6. Impact of a Statewide Mentoring Program on Leadership Practices and Job Satisfaction Among Nurse Leaders

Aims and objectives. The aim of this project was to determine how a structured mentoring program impacts transformational leadership practices and job satisfaction of nurse leaders in a statewide nursing organization and analyze differences between demographics within the two different groups.

Background. In consideration of the nursing shortage, as well as the aging nursing workforce, time is of the essence in ensuring a successful transfer of leadership knowledge to the next generation of nurse leaders. Based upon existing evidence, and at the recommendation of the Institute of Medicine, as well as numerous nursing professional organizations, the time has come to focus on leadership development and mentoring. The Organization of Nurse Leaders of New Jersey offers a year-long mentoring program to nurse leaders as part of their mission to empower nurse leaders and support professional development.

Design. Comparative evaluation study with a cross-sectional design with a convenience sample.

Method. The entire 581 membership of the Organization of Nurse Leaders of New Jersey were invited to participate in an online questionnaire on self-reported leadership practices and job satisfaction. A total of 240 nurses, 87 that participated in the statewide mentoring program and 153 that did not participate in the mentoring program, completed an online questionnaire on self-reporting leadership practices and job satisfaction.

Results. Leadership practices and job satisfaction were numerically high in both the mentored and non-mentored groups. The leadership practices and job satisfaction scores failed to show any significance between those in the mentored group and those not in the mentoring program. Numerical mean scores were actually higher in the non-mentored groups for all facets except for “job in general” and the leadership practice of
“encouraging the heart.” No differences were found between the groups when examining any of the demographic variables.

**Conclusions.** Mentoring, a practice within transformational leadership, occurs in various capacities and impacts leadership practices and job satisfaction. Mentoring opportunities provide individual and organizational benefits to those participating and should be considered in an effort to promote retention of nurse leaders and succession planning, as well as the creation of a lasting impact on the profession through sharing knowledge and encouraging the future of nursing.

**Relevance to clinical practice.** Mentoring has become a pillar in nursing organizations and the focus on leading the future of nursing. There is a need for continued efforts on providing mentoring programs to all levels of nursing. Providing opportunities for nurse managers to have mentoring opportunities may support the recruitment and retention of new nurse leaders. Recognizing a supporting mentoring as a method to not only professional development, but also succession planning may facilitate the growth and development of nurse leaders that will carry the profession well into the 21st century. Consideration should also be given to the impact of nurse retention and nursing leadership on the impact on the quality of care provided to patients.

**Key words:** mentor program, nurse leaders, leadership practices, job satisfaction

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7. The Impact of User Technique on Variability of Temporal Artery Thermometer Measurements

Abstract: Introduction: Previous research has found that temporal artery thermometer (TAT) measurements are valid and reliable; however, nurses at our organization often questioned the results and utilized a second device to validate TAT temperatures. Our group hypothesized that inconsistencies in user technique was driving the variability in TAT measurements. The purpose of this observational study was to evaluate differences between correctly and incorrectly obtained TAT temperatures. The hypothesis was that the standard deviation among incorrectly obtained TAT readings would be significantly greater than those obtained using correct technique. Method: Sixty-nine practicing nurses were observed using the TAT to obtain a temperature on a healthy volunteer. Nurse-researchers, gauged at determining competency with TAT technique utilized a checklist to evaluate technique as correct or incorrect. The temperature was then recorded in the corresponding group. Result: Overall, 39% of subjects used correct technique. The standard deviation when using correct technique was 0.53 degrees, and 6.58 degrees with incorrect technique. Based on a two sample standard deviation test, these results were statistically significant (p = < .01). Conclusion: This study suggests that correct technique leads to less variable, more trustworthy TAT results. There is a need for further education on correct TAT technique, and its importance in recording accurate and valid results.

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8. Mounting chair alarms to improve workflow and promote patient safety

Objective 1: To promote patient safety by integrating chair alarms into the call bell system

Objective 2: To improve consistency of use supporting staff workflow by mounting a chair alarm above each patient bed

Purpose: To increase usage of chair alarms and promote safe mobility by improving staff workflow and consistency of use. Strategy for fall prevention, integration with call bell system, etc.

Abstract:

Mobility is necessary for maintenance of functional status and recovery. Our Fall Prevention Committee wanted to find a staff-friendly way to support early mobility in our hospital. The goal was two-fold: to improve patient safety by decreasing falls and to streamline staff workflow. Six Sigma DMAIC (Define, Measure, Analyze, Improve, Control) methodology was used to roll out mounted chair alarms that were integrated into the call system.

Define: Each inpatient unit had access to portable chair alarms however there were not enough to promote mobility for everyone. Additionally, alarms were difficult to hear depending on the location of the patient and because of the layout of the units.

Measure: Fall rates for Q1 and Q2 of 2015 on several hospital units were at or above the national mean.

Analyze: Information obtained from post-fall debriefings indicated that we may not be getting patients out of bed frequently enough to maintain their functional status.

Improve: Two inpatient units with active Fall Prevention Committee members were used to pilot mounted and integrated chair alarms in the 3rd quarter of 2015. Partnerships with the product representative as well as environmental services, plant operations, physical therapy and nursing supported the implementation.

Control: Fall rates on both units for Q3 of 2015 were below the national mean. We expect to see further improvement once Q4 results are published. The feedback from staff of these units was so positive that the mounted chair alarms have subsequently been rolled out to all inpatient areas and the Emergency Department.


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9. Our Journey to Zero Falls: Using Technology to Communicate Effectively

Purpose:

An increased incidence of patient falls on an inpatient unit occurring over 2 quarters sparked the drive to find effective ways to reduce the fall rate to zero. Although the fall rate was below the national benchmark, several resulted in injury. A root cause analysis of each fall was performed. Literature search on best practices to prevent inpatient falls was conducted.

Abstract: A root cause analysis of each fall was performed and a literature search conducted. An audit and real time study of hourly rounding was done. Found that hourly rounding by direct care providers was inconsistently being done specifically in the area of toileting and time was insufficient for hourly rounding by patient care technicians (PCTs) due to the cumbersome work of daily bed baths.

A pilot was conducted to utilize alternative bathing measures. A simple tool was developed to identify those at high risk for injury with fall in addition to using the current Morse Fall Risk Scale. In Coordination with our information technology (IT) team, assessment for risk for injury and reminder for bed alarm were imbedded into the patient electronic chart. Several icons identifying needs are available electronically in real time. The coordination of IT and nursing; with this assessment, implementation and documentation has demonstrated a decreased fall rate from 3.2/1000 in 2010 to 1.0/1000 patient days.

Project started as a means to reduce fall rate. Use of electronic technology was found to be a beneficial safety communication tool at the bedside. Practice change of toileting based on fall assessment and replacement of the traditional bed bath allows PCTs more time for rounding to improve the culture of safety on the unit. Safety huddles per shift are now a standard on the unit. A serendipitous finding of increased staff satisfaction in the area of communication between nurses and ancillary personnel was noted.

Objective 1: Describe the use of information technology as a communication tool at point of care during hourly rounds

1. Assessment fall risk

2. Assessment of patients at high risk for injury

3. Assessment tool

Objective 2: Discuss the practice of hourly rounding the prevention falls

1. Time study including essential activities at point of care during rounds
2. Communication barrier between direct care providers

3. Electronic format used as a communication tool at the point of care

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10. Raising HCAHPS scores using the teach-back method in patient education

Purpose:
The purpose of this research project was to study the effect of direct care staff using the teach-back method in patient education on HCAHPS scores.

Introduction

Teach-back is an educational technique which involves patients and/or primary learners in the teaching process and asks patients to restate information which has been taught to them (Agency for Healthcare Research and Quality, 2015). Although healthcare professionals have been promoting the use of teach-back, there remains a gap in research regarding the effectiveness of teach-back in patient outcomes.

Design

A quasi-experimental research study using two similar medical units was utilized; one as the intervention group and one as the control. After receiving IRB permission, all of the regularly scheduled direct care nursing staff (N= 24) on the intervention unit participated in a one hour educational session on the teach-back intervention. A pretest on the knowledge, attitudes and beliefs about teach-back was administered immediately prior to the presentation. The same test was administered one month after the educational session. Consistent application of teach-back was incorporated and documented on the intervention unit. Nurses from both units were not given information that HCAHPS scores were being monitored and analyzed to prevent biasing the results.

Results

A significant improvement in the knowledge scores in the pretest-posttest was found using paired t-tests (p=.002). Qualitative analysis of nurses’ comments demonstrated strong support for teach-back in the posttest. For seven HCAPHS statements related to patient teaching, only one demonstrated significant improvement in the intervention group during one quarter after teach-back was initiated p=.025. A positive trending of scores was noted in the intervention group however, some positive scores were also noted in the control group.

Conclusion
This study was not able to support the hypothesis that the addition of teach-back in patient education would raise HCAHPS scores in 7 specific statements dealing with nurse’s providing patient education. Using teach-back in patient education may have merit when using other outcomes to measure in research.

**Objective 1:** Summarize the teach-back teaching technique and its applicability to HCAHPS scores.

**Objective 2:** Describe how the teach-back method can be effective in patient education.

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11. Reducing Catheter-Associated Urinary Tract Infections in Home Care

Catheter associated urinary tract infection (CAUTI) has been associated with increased morbidity, mortality, hospital cost, and length of stay as urinary tract infections (UTI) are the most common healthcare-associated infection (HAI), accounting for more than thirty percent of infections reported in acute care hospitals. Urinary catheters are used in multiple health care settings however, maintaining catheters in homecare pose unique challenges. In 2014, a steady increase in CAUTI rates was noted in homecare, prompting cause for a reduction strategy. There are presently no national benchmarks for measuring CAUTI in homecare. Another challenge is that it cannot be determined that the infection was caused by home health agency personnel or patient interference such as poor hygiene or extrinsic factors such as poor sanitation. This study examined a pre/posttest quasi-experimental design comparing nursing knowledge in CAUTI prevention interventions. A power analyses was completed to determine sample size. The intervention consisted of nursing education in a prevention bundle that included appropriate use, maintenance, and insertion of urinary catheters, use of closed system, hand hygiene and patient education tools for the Community Nurse Services Home Care nurses. West Jersey Home Care, the control group, did not withhold care as they provided the usual care to their patients with urinary catheters. The tool was reviewed by the infection control prevention nurse and the wound ostomy continence nurse for validity. A two sample t Test and paired t Test was used to analyze nursing education pre and post test results. CNS nursing knowledge improved by 24 percent based on test score analyses. Retrospective chart surveillance was conducted in order to compare pre and post CAUTI rates in determining the effectiveness of the intervention bundle. After initiating the intervention in the beginning of 2015, the CAUTI rate decreased from 4.0 in 2014 to 0.33, a rate reduction of 3.67, or 91.75%. Statistical significance was determined using a 2 Sample % Defective Test.

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Objective One: After participating in this poster presentation the learner will identify the potential for incorporating the use of intravenous acetaminophen for effectively managing post-operative pain while producing an opioid sparing effect.

Purpose of the Study: The goal of this study is to conduct a retrospective review of the medical records of patients who received intravenous acetaminophen for post-cesarean section pain to determine its potential to have an opioid sparing effect. The following question will be investigated: In women undergoing cesarean section how does the administration of intravenous acetaminophen compared to those who did not receive intravenous acetaminophen affect opioid use for post-operative pain management.

Abstract: Effective postoperative pain management is integral to optimal recovery and patient satisfaction. Historically postoperative pain has been treated with opioids which provide effective analgesia but are commonly associated with adverse side effects. The use of intravenous acetaminophen has been introduced as a multimodal approach to managing pain and to produce an opioid sparing effect. In the post cesarean section patients’ poor pain control may interfere with breast-feeding and early maternal bonding with the infant. Purpose: The purpose of this work is to evaluate the efficacy and opioid sparing effects when intravenous acetaminophen is incorporated into the postoperative pain management regimen.
**Literature Review**: A search of current scholarly literature ranging from 2010 through 2015 was conducted and 16 articles were reviewed. Several studies were retrospective in nature or studies included a variety of surgical procedures and results cannot be generalized. While the addition of intravenous acetaminophen as a multimodal approach to managing postoperative pain most often yields positive results, prospective studies with larger patient samples and more randomized trials are recommended to confirm the results. **Methodology**: The investigators performed a retrospective review of the electronic medical records of 100 patients who underwent a cesarean section and received a multimodal analgesia protocol. Fifty of the records reviewed were prior to the addition of intravenous acetaminophen to the analgesia protocol compared to 50 patients who received the addition of one gram of intravenous acetaminophen as part of a multimodal analgesia protocol. Data was compiled on the number of doses of opioids received by each group in the initial 24 hour post-operative period, converted to milligrams (mg) of oxycodone. **Results**: The results of this study revealed a mean total of 2.7 mg of oxycodone consumption in the acetaminophen group compared to a mean total of 4.02 mg of oxycodone consumption in the non-acetaminophen group. **Conclusion**: The addition of intravenous acetaminophen to the multimodal analgesia protocol is effective in decreasing opioid consumption in the initial 24 hour post-operative period after cesarean section.

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16. Relationship Based Care (RBC) Model through Unit Practice Council (UPC).

Objective One: To improve the structural empowerment among Telephone Triage nurses (TTU) through the implementation of a UPC utilizing the element of resource driven practices of RBC framework. It is as measured by an instrument of Conditions of Work Effectiveness Questionnaire –II (CWEQ-II).

Objective Two: To improve teamwork for the staff in TTU through the implementation of a UPC utilizing the element of teamwork of RBC framework. It is measured by the Commitment to My Co-Worker Healthy Team Assessment Survey (MCHTA).

Purpose of Study: The purpose of this evidence-based project is to develop, implement, and evaluate a unit practice council (UPC) using the Relationship-Based Care (RBC) framework, particularly teamwork and resource-driven practices that focused on empowerment and teamwork. The project further aimed to improve the structural empowerment among TTU nurses through the implementation of a UPC as measured by Conditions of Work Effectiveness Questionnaire –II (CWEQ-II). In addition, the project also aimed to improve teamwork for the staff in TTU through the implementation of a UPC as measured by the Commitment to My Co-Worker Healthy Team Assessment Survey.

Abstract

Purpose: To develop, implement and evaluate Relationship Based Care (RBC) Model through Unit Practice Council in the Telephone Triage Unit (TTU) at a Federal Hospital in New York to improve empowerment and teamwork in nurses.

Literature Review: The RBC model of care can improve patients and staff satisfaction and performance through the implementation of UPCs focusing on engaging staff, aligning leaders, and strengthening the front line employees through shared decision making processes (Ledesman, 2011; Cabarets, Lombardo & Kline, 2013). The RBC model through shared governance and UPC promotes organizational health resulting in positive outcomes measuring clinical safety and quality, patient and family satisfaction, effective recruitment and retention and healthy financial bottom line (Koloroutis 2004 & Hedges, 2012).

Methodology: A pre and post-test survey (CEWQ-II and MCHTA) was administered to examine the staff structural empowerment and teamwork. It was done through the implementation of a UPC utilizing RBC framework after conducting a kick off and education on RBC and UPC implementation guide. The staff formed UPC through nomination process and implemented RBC vision statement, RBC logo, RBC communication network, and employee appreciation system from June 2015 to December 2015.

Sample Size: Twenty one registered nurses.

Results/Outcomes: The findings revealed that there was an increase of teamwork for 5.1% for ‘Self’ and 9.6% for ‘Team’. The results also second showed an increase of
18.4% in empowerment among nurses. The project supported the Relationship Based Care model through Unit Practice Council to improve teamwork and empowerment among nurses for positive staff outcomes.

Reference

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17. Using Technology to Communicate Effectively for Patients with Chest Tubes

Purpose of study:
An increased incidence of adverse outcomes in our patients with chest tubes was the leading force in an attempt to provide consistent and safe care at the bedside. An investigation was done by the unit’s direct care providers to determine what processes could be improved. Inexperienced and rotating direct care staff was a concern. It was determined that better communication would improve safety. The unit council developed a safety plan, to use at the bedside; which included education, real time assessment and forward thinking skills.

Objective One:
Participants will be able to identify the change process using forward thinking skills in the care of the patient with a chest tube.

1. Adapting technology to identify patient needs
2. Communication among staff

Objective two:
Participants will be able to discuss safety communication among direct care providers in identifying the needs of patients with a chest tube using an electronic format.

1. Assessment of patients with a chest tube
2. Use of critical thinking in anticipating needs of patient based on assessment
3. Chest tube communication icons

Abstract
The impetus for this PI project was two adverse incidents of chest tube dislodgement on a pulmonary unit. The direct care providers developed an algorithm for assessment and a check list for verification of supplies. The Informational Technology nurse was a member of the team and assisted with the development of computer icons. The intent of these icons is to communicate to all staff members the needs of patients with chest tubes. Education was provided using simulation for staff to assess and intervene appropriately, in chest tube emergencies.

These interventions have resulted in a 200% decrease of adverse outcomes with chest tubes for the past two years (2 to 0).

In 2015 the direct care providers evaluated autonomy at 4.40 (mean 4.33)
The evaluation for decision making was evaluated 3.93 (mean 3.77)
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Abstract

Background: Utilization of evidence-based practice (EBP) or research-based knowledge sources by registered nurses (RNs) remains a significant challenge. While the benefits of EBP are universally acknowledged by RNs, their perceived self-efficacy with accessing and implementing EBP is low.

Objectives: This study was designed to examine the perceived level of self-efficacy for EBP and for a nurse-initiated protocol for medical-surgical RNs in an acute care setting and to compare the difference in EBP self-efficacy and a nurse-driven telemetry discontinuation protocol when evaluating various demographic characteristics.

Design: Descriptive and comparative descriptive designs were used to examine perceived RN EBP self-efficacy and EBP self-efficacy with a nurse-driven telemetry discontinuation protocol and to compare both by various demographic characteristics.

Setting: Participants in this study were solicited from six inpatient acute-care units at Virtua-Voorhees hospital that have remote cardiac telemetry monitoring capability and utilize the nurse-driven telemetry discontinuation protocol.

Sample: RNs \( (N = 64) \) employed on Virtua-Voorhees medical, surgical, medical-surgical mix, and cardiac/neuroscience departments participated.

Methods of data collection: Medical-surgical RNs were recruited at unit-based shared governance meetings and through Virtua e-mail invitation. An electronic survey (SurveyMonkey®) provided the Evidence-Based Practice Self-Efficacy (EBPSE) scale by Tucker et al. (2009) to participants to elicit perceived level of self-efficacy with EBP. Two items on EBP self-efficacy with a nurse-driven telemetry discontinuation protocol were also included in the instrument. Demographic characteristics were obtained.

Results: Virtua-Voorhees medical-surgical RNs reported confidence with routinely asking questions about their practice. However, there were significant gaps noted in RNs’ proficiency with accessing and using research and implementing evidence-based patient care initiatives. Results from the EBPSE instrument inferred a lack of confidence with EBP among female RNs, non-specialty certified RNs, and RNs employed less than one year.

Conclusion, implications, and applications: Use of the EBPSE instrument to measure self-efficacy with EBP and the Nurse-Driven Telemetry Discontinuation Protocol provided useful information regarding RNs’ confidence and use of evidence-based research and practices. As noted in the literature and demonstrated in this study, RNs are
skeptical and reluctant to use nurse-driven protocols. Critical to successful implementation of evidence-based nurse-driven protocols, it is essential to develop an effective assessment, education, and implementation plan prior to execution of a nurse-driven protocol to ensure optimal RN acceptance and commitment. Gaining buy-in from the early stages of protocol research and development through execution may increase the likelihood of success for an evidence-based nurse-driven protocol.

*Key words:* evidence-based practice, confidence, nurse self-efficacy, remote telemetry, cardiac monitoring, nurse-driven protocol

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19. Getting to the Core of Pain Management

**Background:**

Currently pain management is very complex, and pharmacological treatments have contributed to the rise of addiction among all patient populations. Because the health care industry is ever changing, it has become difficult to keep up with the treatment modalities and pharmacological advances.

At Hunterdon, pain management was identified by nursing and hospital leadership as a priority, in part due to frustration expressed by the nursing staff in treating and managing highly challenging patient pain issues. In addition, chronic pain is one of the costliest health problems in the United States.

This research study was developed to better understand and identify the gaps in nursing knowledge and attitudes towards the treatment and management of pain. The hypothesis was that educational intervention would increase posttest scores over pretest scores.

**Methods:**

Using the Knowledge and Attitudes Survey Regarding Pain administered via Survey Monkey, data were collected from a convenience sample of 165 direct-care RNs actively practicing in the inpatient setting, as a pretest-posttest design with education as an intervention. The instrument used was based on current standards of pain management and consisted of 36 questions with a combination of true/false and multiple-choice answers. A t-test for paired samples was used to measure the effect of educational intervention by comparing posttest scores to pretest scores.

**Results:**

Statistical significance was found (p=.019) supporting the hypothesis that educational intervention would increase posttest scores. Thirteen survey questions regarding the indications, dosage, and side effects of opioids showed minimal improvement. A t-test on 17 questions that related specifically to opioids indicated low comprehension both in pretest and posttest scores.

**Conclusions:**
Although the posttest showed a significant improvement in nurse attitudes and perceptions of pain management, it did indicate that there is still a need for further education and understanding of opioids and the effects on the body. In order to assess benefit to the patient, patient satisfaction was monitored through the HCAHPS question, “Staff did everything to help with pain.” This measurement showed steady improvement from 68.8 in 2012 to 81.0 in 2014.

Consistent with the findings, there was a need for further education that would continue to support nurses’ knowledge and understanding of opioid analgesia. This information was forwarded to the Nurse Education Council and the Pain Domain Committee for future action.

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