



MOUNT ST. JOSEPH
UNIVERSITY®
School of Health Sciences

2021 DNP Projects



DNP 2021 Graduates



DNP-prepared nurses are well-equipped for advanced nursing practice roles and responsibilities. The 2021 MSJ DNP graduates represent a variety of nursing specialties. They each possess the leadership, determination, and professionalism required to reach the highest level of nursing education with a focus on nursing practice, the Doctor of Nursing Practice (DNP) degree.

FROM THE DEAN

We are proud of our Mount DNP graduates. The changing demands of our complex healthcare environment require a high level of scientific knowledge and practice expertise to assure quality patient outcomes. Our DNP graduates are prepared to contribute in meaningful ways. These DNP projects are a sample of their contributions.

Darla Vale

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FROM THE ASSISTANT DEAN

Nurses who graduate from the Mount with their terminal, Doctor of Nursing Practice (DNP) degree, have made a commitment to improve patient outcomes, at the highest level, and to lead others to do the same. Their DNP projects serve as resources for other nurses who aspire to use knowledge, research data, expertise, patient preferences and institutional support to improve patient outcomes and care. The faculty and I are proud of the work they have done, knowing that it is their patients who have benefited most from their dedication and perseverance.



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FROM THE PROGRAM DIRECTOR

It is truly an honor to serve as the Program Director for the Mount St. Joseph University Doctor of Nursing Practice (DNP) program. The essence of this degree is to combine the doctoral curriculum with one's nursing practice experience to implement an interdisciplinary evidenced-based project that improves patient outcomes. The DNP faculty at MSJ portray authentic leadership and care while providing a high quality academic experience for practicing nurses to achieve a terminal degree. The DNP students at MSJ demonstrate the relentless advocacy needed to transform health care access, delivery, and outcomes. Through this work, our communities of care become safer, healthier, and sustainable.

Congratulations to the 2021 DNP graduates!

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CONGRATULATIONS
DNP GRADUATES!



Angela Dorsey
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TriHealth Educator
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Using Monthly Support Groups to Increase Resiliency and Decrease Turnover

Abstract

Entering the nursing profession can be both exciting and nerve racking for new nurses as they transition from a student to a professional. According to the 2020 National Health Care Retention and RN staffing report, by Nursing Solutions Inc., “first year turnover continues to outpace all other tenure categories and makes up 58.9% of a hospital’s turnover in the United States” (NSI Nursing Solutions, Inc., 2020). Turnover of the NLRN is costly, averaging approximately \$52,000 for one NLRN. A reported turnover rate of 17.2% in 2019 is estimated to cause an annual cost for a hospital of \$5,700,000

(Asber, 2019, p. 430). The purpose of this DNP project is to increase resiliency and retention of the newly licensed register nurse (NLRN) via a nurse residency program (NRP) paired with a monthly support group that includes resiliency training. Twenty NLRN participated and attended monthly NRP sessions and support group meetings over a 6-month period. The results showed an increase in resiliency scores overall, and the retention rate increased from 83% to 90.5%. While the results were going in the right direction, a bigger impact may have been observed if Covid was not present.

Vascular Access: A Navigation Map

Abstract

Vascular access therapy is a term used to describe accessing the intravascular space of patients, to infuse blood products and other medications as well as remove blood samples for testing. Having reliable vascular access is crucial for the treatment of ill pediatric patients. Providers have many options available when deciding on the type of vascular access device (VAD) and placement location. Among the VAD options are non-tunneled central lines, tunneled central lines, ports, peripherally inserted central catheters (PICC), midline catheters, and peripheral

intravenous catheters (PIV). This evidence-based practice quality-improvement (EBP-QI) project will focus specifically on the PICC placement through the use of a Care Algorithm for Vessel Selection to reduce unsuccessful insertions and increase vessel preservation in patients. Keywords: vascular access algorithm, vessel preservation, vascular access device complication, competency for nurses, assessment of nursing skills, nursing interventions, algorithm for central placement, lower extremity PICC placement, and femoral PICC placement.



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The Christ Hospital,
Nurse Educator
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Lynn Leandro
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Topical Morphine Gel for Painful Pressure Wounds

Abstract

Chronic pressure injuries are a common problem among the frail, debilitated, and those nearing the end of life. Most stressful is the pain particularly during and after dressing change (Briggs et al., 2013). Systemic analgesics are the mainstay for most patients but are dose-limiting in this population due to untoward side effects. Topical morphine-infused gel (MIG) has shown significant benefit for patients with pain at the wound site (Flock, 2003). The aim of this study was to determine whether hospice patients with painful PI's would be considered or initiated on MIG after completing an education module (e-module) and video demonstration of MIG application. In a large midwestern healthcare system, 177 bedside and licensed hospice nurses in one of 3 inpatient hospice facilities completed an e-module and video with a pre

and post-test as part of their mandatory annual competency renewal. Thirty days later MIG became available to all the inpatient units through the hospice pharmacy for patients with painful wounds. Three months post MIG availability, data was collected and analyzed to determine if patients with painful wounds were considered or initiated on MIG. Results of pre and post-test showed a statistically significant increase in knowledge however the onslaught of the pandemic required modifications in evaluation and another way of seeing the utility of MIG in this setting.

CommuniCare
Personalized Health Partners
Nurse Practitioner

Safe Sleep with Gastroesophageal Reflux in Infants

Abstract

Supine positioning is the recommended position for infants by the American Academy of Pediatrics (AAP) and the North American Society for Pediatric Gastroenterology, Hepatology, and Nutrition (NASPGHAN) for infants 32 weeks gestation and greater, on one liter of oxygen or less, and taking oral feedings. It was noted that Neonatal Intensive Care Unit (NICU) nurses in a midwestern urban hospital were non-compliant with keeping infants supine as well as other safe sleep practices. The purpose of this project was to examine the effect of formal safe sleep practice (SSP) education on nurse compliance. One hundred and twelve NICU nurses received the SSP education as part of the mandatory annual competency unit-based

education. There was statistically significant increase in post-test scores after the lecture and demonstration SSP educational session ($p < 0.00001$). Random crib audits over the next two months revealed an increase in nurse compliance with SSP at the 90% benchmark. The most common items left in the cribs were diaper creams and hats, which nursing leadership provided guidance in the promotion of SSP via formal team huddles and weekly nursing updates. The results indicate that formal education along with audits and reminders increase nurses' compliance with SSP in the NICU. Modeling these SSP in the NICU for parents is key if parents are going to follow them at home after discharge.



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Implementing A Glycemic Management Protocol With Surgical Patients

Abstract

Surgical site infections (SSIs) are one of the costliest healthcare acquired infections in hospital settings as they impact length of stay, patient outcomes, and hospital reimbursement. A recent increase in SSIs at a Midwestern community hospital gained the attention of the organizational leadership and spurred an initiative to decrease the SSI rates. The project team developed a foreground/background and targeted PICOT question to guide review of the literature. Based on the results of the inquiry, an intervention targeting glycemic management of all surgical patients except obstetrics and surgical patients under 16 years of age was implemented as part of an evidence-based SSI prevention bundle. The project team chose the Iowa Model of Evidence-Based Practice to Promote Quality Care as the model for guiding the professional practice change. Using Lewin's Change Theory as a framework, the project lead provided education to the surgical staff including pre-operative, post-operative, certified

registered nurse anesthetists, and patient care assistants on stress hyperglycemia and glycemic management. Implementation of a glycemic management protocol for surgical patients began mid-November 2020. The goal was to improve hyperglycemia rates in this population of patients and assist in improving SSI rates. Data revealed that approximately 9% of patients had glucose values at or above 140mg/dL and required intervention. Standardized infection ratio (SIR) rates decreased on colorectal, total knee replacements and coronary artery bypass grafts, abdominal hysterectomy rates were unchanged, and total knee replacement rates increased after implementation. This evidence-based quality improvement project demonstrated a correlation between glycemic management in surgical patients and surgical site infection rates and improved patient outcomes.

Hematology/Oncology Unit Champions Promote Care Plans for CLABSI Prevention

Abstract

Despite ongoing CLABSI prevention strategies at the project site, CLABSI rates in the hematology/oncology unit were elevated in the fall of 2019. A clinical question was developed to address this problem. Following a systematic search of the literature and subsequent critical appraisal of 29 articles, a strong recommendation was made for the inclusion of unit champions, education, and coaching in the design of any quality improvement initiatives for CLABSI reduction. An evidence-based quality improvement project was designed to improve CLABSI rates and bundle compliance in the hematology/oncology unit by leveraging unit champions in the implementation of a Vascular Access Care Plan for patients at high risk for CLABSI (watchers). An auditing tool was used to track watchers and those

with a Vascular Access Care Plan during biweekly rounding. K card data (coaching tool) was used to monitor learning opportunities and the percentage of watchers with identified mitigation strategies. CLABSI rates were 0.31 during the evaluation period compared to 0.79 per 1000 line days during the previous fiscal year. Care plan usage improved to 100% of watchers with a care plan by the end of the evaluation period. There was an increase of 16% in the identification of watchers and 9.3% in tier II mitigation strategies for watchers identified on K cards. Learning opportunities and coaching moments were high during the evaluation period. Unit champions were key to implementing and sustaining an EBP-QI initiative and should be leveraged for other quality improvement initiatives to improve patient care at the project site.



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BON SECOURS
MERCY HEALTH

Remote Home Blood Pressure Monitoring for Management of Hypertension

Abstract

Remote home blood pressure (BP) monitoring has the potential to improve patient engagement and adherence with the prescribed treatment plan for managing hypertension. This DNP project examined the effects of daily remote BP measurement using transmission of biometric data through a Bluetooth-equipped device paired to participants' smartphones.

Twelve adults, with an age range of 37 to 69 years, completed four weeks of daily BP measurements and communicated via text, telephone call, or video visit with care team members to discuss the plan of care and address any concerns. A Wilcoxon signed-ranks test was performed to determine the magnitude of difference between the week 1

and week 4 systolic and diastolic BP measurements. The results revealed Week 4 systolic BPs (M = 127, SD = 12.48) were significantly lower than the Week 1 systolic BPs (M = 136, SD = 12.48), $W = -2$, $p = .004$ and the Week 4 diastolic BPs (M = 82, SD = 10.97) were significantly lower than the Week 1 diastolic BPs (M = 89, SD = 9.92), $W = -4$, $p = .006$.

This average systolic decrease of 9 mmHg and average diastolic decrease of 7 mmHg indicated success in lowering BP within a four-week timeframe. The clinical management of a chronic condition such as hypertension is a long-term process, but the findings of this DNP project supported the empirical evidence showing that remote BP monitoring improves patient outcomes.

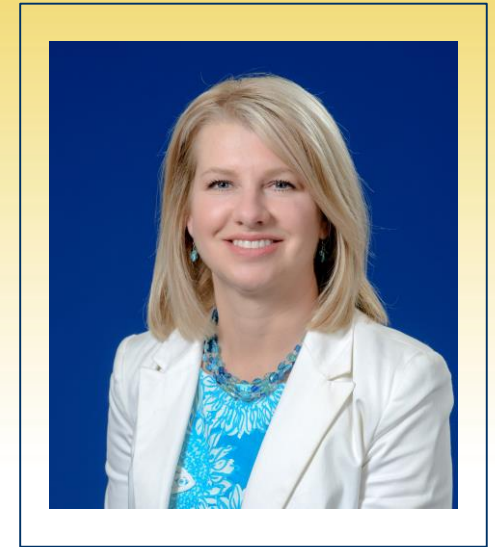
Nurse-Focused Cultural Competency Education for Patients with Differences of Sex Development

Abstract

Hospitals are collecting Sexual Orientation and Gender Identity (SO/GI) data through the Electronic Health Record (EHR). Although the SO/GI data is aimed at the lesbian, gay, bisexual, and transgender (LGBT) patient (CDC, 2019), intersex (I) is also an option in the EHR. While healthcare training exists for the LGBT population, nurses lack focused clinical training and cultural competency for the intersex/Differences of Sex Development (DSD) patient. Nurse education was implemented using a PowerPoint during Lunch-and-Learn sessions. Two questionnaires were administered pre-and post-education, a clinical knowledge survey, and a validated Health Belief Attitudes Instrument Survey (HBAS). Nineteen nurses attended the education sessions. A Wilcoxon signed-rank test was used to compare survey data.

Before receiving education, 53% of healthcare workers surveyed for this project reported never having heard the term DSD and 58% didn't know intersex was not the same thing as transgender.

There were significantly improved knowledge scores after the education (median = 3 correct) compared to before the education (median = 1 correct), $Z=-3.62$, $p=0.0003$. The percent of nurses who had heard the term DSD increased from 47% pre-education to 100% post-education. Nurses' scores on a DSD/intersex knowledge assessment increased from 33% pre-education to 100% post-education. Finally, nurses' Health Belief Attitudes Instrument scores significantly increased from pre-education ($M = 4.65$, $SD = 0.68$) to post-education ($M = 4.94$, $SD = 0.66$), $p = .017$. Qualitative feedback supported the need for this project. This work will complement the existing SO/GI material in the hospital with the goal of enhancing patient outcomes for patients with DSDs/intersex conditions.



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Tracy Phipps
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The Effects of an Enhanced Recovery Pathway on Emergency Room visits following Bariatric Surgery

Abstract

Constipation and other bowel related issues are a recurring problem following bariatric surgery procedures. It leads to an increase in emergency room visits and readmissions within the first three months following surgery. There are several studies that demonstrate that the use of clear, universal discharge instructions, also known as an enhanced recovery pathway, has shown positive

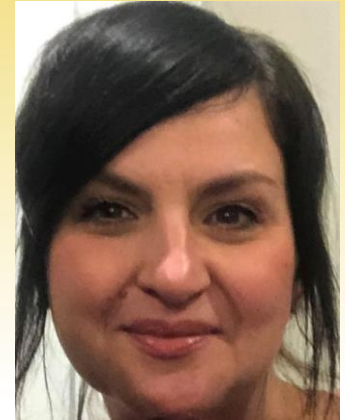
correlation between it and better patient outcomes. This DNP project was based in a local hospital in Cincinnati, Ohio and implemented universal instructions for patients enrolled in the bariatric surgery program. The data collected was to determine if using these instructions would have a positive impact on patient outcomes, namely a decrease in emergency room visits and readmissions post-surgery.

ED Utilization: Right Care Right Place Toolkit

Abstract

Access to emergency department (ED) services for medical care is vital for patients experiencing a medical emergency; however patients will often visit the ED for medical care that could be provided in a lower acuity setting, like a primary care provider (PCP) office. Inappropriate ED utilization results in increased costs not only for the patient seeking care, but also for the system where care is being sought as well as the broader healthcare industry. Increasingly, PCPs are held accountable for providing the right level

of care, managing continuity of care, and improving patient outcomes via value-based contracts. This DNP project examined the impact of implementing an emergency room toolkit. A Wilcoxon signed-ranks test was performed to determine the change in the mean emergency room visits pre and post implementation of the toolkit. The results revealed a 22% reduction in emergency visits with the mean ED visits dropping from 357.5 pre-implementation to 278.5 post-implementation



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Pediatric Delirium in Mechanically Ventilated Patients and Use of Benzodiazepines

Abstract

Pediatric delirium remains to be a significant cause of negative patient outcomes. Prevalence rates of pediatric delirium in pediatric intensive care units (PICU) have increased from 20% to at least 40% in the last couple of years. Despite these rates, very few PICUs screen for delirium. The global aim of this project included increasing knowledge and awareness of PD, thereby, decreasing PRN benzodiazepine boluses. The outcome goal of this project was the implementation and standardization of delirium screening tools into practice at the participating organization. A total of 29 staff nurses participated in an education pre and posttest. Posttest scores increased with 52% of participants achieving an 88% or higher on the quiz leading to a statistically significant increase in test scores from pretest to post-

test, $Z=4.58$, $p < 0.00001$. Out of 40 patients, only 12 (30%) patients were actually screened demonstrating minimal scale compliance. There was no significant difference in mean number of boluses between patients who received care pre-intervention ($M = 0.89$ boluses/day) and patients who received care post-intervention ($M = 0.76$ boluses/day), $t(410) = 1.06$, $p = 0.145$; however, data demonstrated an average drop of 0.13 boluses given in a 24 hour period and 5% increase in patients that did not receive a PRN bolus the entire length of stay. The findings of this study serve as the first of many steps toward changing culture at the participating organization and in healthcare by promoting changes in care that minimize the morbidities associated with pediatric delirium, thereby, improving patient outcomes.



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