

2025

DNP PROJECTS



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Optimizing Sugammadex Administration in the Operating Room

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- **Background:** Medication waste in the operating room (OR) poses significant financial and environmental challenges for healthcare systems. Sugammadex, a costly reversal agent for neuromuscular blockade, is frequently wasted due to inefficient dosing practices and lack of adherence to evidence-based guidelines.
- **Purpose:** The purpose of this quality improvement project was to reduce sugammadex waste and associated costs by educating anesthesia providers and implementing evidence-based strategies for medication administration in a large academic medical center.
- **Methods:** A multi-modal educational intervention was delivered to anesthesia providers, including a PowerPoint presentation, recorded lecture, and in-person session. Implementation strategies included optimizing rocuronium dosing, emphasizing twitch monitoring, reinforcing reversal guidelines, and promoting appropriate sugammadex vial selection. Pre- and post-intervention data were collected to evaluate changes in usage and cost.
- **Findings:** Prior to the intervention, 30% of sugammadex administration was categorized as waste, equating to approximately \$856,099 in lost revenue. Following the intervention, waste was reduced to 14.21%, reflecting a projected savings of over \$450,000 annually while maintaining patient safety and effective reversal practices.
- **Discussion:** Educational outreach and strategic implementation of evidence-based practices significantly decreased sugammadex waste in the OR. These findings highlight the importance of targeted provider education and systems-level changes to improve medication utilization and reduce unnecessary healthcare expenditures.



Improving Colorectal Cancer Screening Rates Among Eligible Asian and Pacific Islander Patients

Natalie Aunan, BSN, RN, DNP-FNP Student

Background: Colorectal cancer (CRC) is a leading cause of cancer-related deaths in the United States, yet screening rates remain low, particularly among the Asian and Pacific Islander (API) community. Because of low screening rates, the API population is at an increased risk for an advanced stage CRC diagnosis compared to others. The accessibility of culturally and linguistically appropriate education is a cited barrier to the decision to undergo colorectal cancer screening (CRCS).

Purpose: This quality improvement project aimed to improve CRCS adherence rates among API patients by implementing culturally and linguistically appropriate education.

Methods: The project used the Model for Improvement framework and the plan-do-study-act (PDSA) cycle. A series of educational videos regarding CRC and CRCS were developed in the Marshallese language by the Community Health Workers at the clinic. Videos outlined how, why, and when to be complete CRCS, as well as showing the testing kit throughout the video. Educational videos were shown to API patients aged 45-75 years old, who had not completed a stool-based test in the last 12 months, or a colonoscopy in the past 10 years. Data was collected on video engagement and screening participation from September 2024 to January 2025.

Findings: A total of 146 eligible patients were seen. Of these, 9% (n=13) had documentation indicating they received the educational videos. All 13 patients agreed to undergo screening. A total of 31 screening tests were ordered, with a return rate of 19.4% (n=6). All 6 patients that returned their screening test had documentation indicating they viewed the educational video. The number of API patients at the clinic, meeting UDS criteria increased from 13.07% before implementation to 15.2% after.

Discussion: Providing culturally and linguistically appropriate education can improve patient's adherence to CRCS and further efforts towards creating accessible education for marginalized populations should be prioritized.



Heart Smarts: Early In-Hospital Educational Engagement for Adult Patients with Heart Failure

Stephanie Baker, BSN, RN

Background

Heart failure (HF) is a prevalent condition affecting millions of Americans. Almost a quarter of hospitalized heart failure patients will be readmitted within 30 days. Effective patient education is crucial for self-management of HF and improving patient outcomes.

Purpose

This Doctor of Nursing Practice (DNP) project aimed to enhance patient knowledge of HF self-management, improve patient satisfaction, and increase nursing staff confidence in providing HF education through early in-hospital education for adult patients.

Methods

The project was conducted at a tertiary care hospital in the midwest, specifically on a 48-bed cardiac step-down unit. Patients received printed educational materials and audiovisual resources via QR codes. The Iowa Model for Sustainability Framework guided the implementation and evaluation phases. Data collection included pre- and post-intervention surveys using the Atlanta Heart Failure Knowledge Test (AHFKT), Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) scores, and an author-developed nursing practice survey.

Findings

Results indicated a significant increase in patient knowledge and nursing confidence post-intervention. Although HCAHPS scores did not show statistically significant improvements, qualitative feedback from patients highlighted the intervention's positive impact.

Discussion

The project underscores the importance of early and continuous patient education during hospitalization to improve HF management. Future directions include expanding educational resources to non-English speakers and integrating video-based education to further enhance patient engagement.

Keywords: heart failure, patient education, self-management, nursing confidence, in-hospital intervention, audiovisual resources.



Untreated Sleep Apnea in Adults with Mental Illness.

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Background: Chronic poor sleep poses significant public health risks, with rising sleep apnea rates linked to obesity, mental health issues, and other medical conditions in the United States. Individuals with untreated obstructive sleep apnea often experience daytime fatigue from disrupted sleep and low oxygen levels, leading to mood irritability, anxiety, and worsened depression. Identifying sleep apnea is crucial for addressing these challenges.

Purpose: Implement a standardized intake process for new adult patients at the outpatient behavioral health clinic (OPBH) by utilizing the STOP-BANG screener. This project aims to incorporate screening new adults for OSA. Three total goals are set for this project: Staff education for the project and the prevalence of OSA. Implement the STOP-BANG screener for all new patients seen 9/1/2024 through 01/31/2025 and monitor for any patient referrals resulting from elevated screening.

Method: This project, which was approved by the Internal Review Board in April 2023 as a non-human subject study, employed descriptive statistics to analyze survey and screening data collected at a mental health clinic located within a safety-net hospital. Utilizing the Plan-Do-Study-Act framework, the project underscores the crucial role of nurses in driving transformational change and emphasizes their skills in leading healthcare improvements.

Findings: Out of 104 adults screened for sleep apnea, 43 showed a moderate to high risk, with 30% scoring above 3. This indicates a significant risk of untreated sleep apnea and highlights the project's importance. The mean survey scores yielded a two-tailed T-test alpha value of 0.05, showing statistical significance. However, no referrals were made, indicating areas for improvement.

Discussion: The project is sustainable and adaptable. The screenings have shown long-term improvements in patients' mental and physical health, supporting the continued use of the screening tool in the clinic. However, further research is needed for patients with more severe mental illnesses.



Ultrasound IV Training to Manage Difficult Access at a Level One Trauma Center

Michael Bieber, BSN, RN, SRNA-DNP student

Background: Peripheral intravenous (PIV) catheter placement is a common nursing procedure, yet patients with difficult intravenous access (DIVA) often require multiple attempts, leading to delays, discomfort, and increased resource utilization. Ultrasound-guided PIV (USGPIV) insertion has demonstrated increased first-attempt success rates and improved patient outcomes. At a large level one trauma center, no preoperative nursing staff were trained in USGPIV placement, relying instead on anesthesia providers for difficult access patients.

Purpose: The purpose of this project was to develop, implement, and evaluate an ultrasound-guided PIV training program for preoperative nurses in the Day of Surgery Admissions (DOSA) unit at a large academic medical center to improve nursing confidence, competence, and patient care.

Methods: Five DOSA nurses participated in a structured training program consisting of pre-training modules, simulation-based learning, and supervised patient insertions. Pre- and post-training assessments measured confidence and knowledge. Outcome measures included the number of USGPIV insertions by nurses, pre- and post-training assessment scores, and anesthesia 'rescue' IV placements when nursing attempts were unsuccessful.

Findings: Post-training assessment scores improved across all measured domains, particularly in ultrasound skills and confidence in PIV placement. A Welch's t-test showed a statistically significant reduction in anesthesia rescue IV placements ($p=0.020$) during the months an ultrasound was available for nursing use. Additionally, an average of 8.66 USGPIVs were placed monthly by trained nurses.

Discussion: Implementation of a structured USGPIV training program significantly improved nursing confidence and skill in PIV placement, decreased reliance on anesthesia providers, and reduced the need for rescue IV attempts. Findings support the need for continued expansion of nurse-led USGPIV programs, acquisition of dedicated ultrasound equipment, and integration of ultrasound training into nursing practice for optimal patient care outcomes.



Embracing Diversity in Healthcare: An Approach to Supporting Transgender Patients

Katie Bishop BSN, RN, SRNA-DNP Student

Background: Transgender patients face healthcare disparities, often stemming from stigma, discrimination, and inadequate provider education. Anesthesia providers play a unique role in perioperative care, yet gender-inclusive communication training is often absent from their education. This gap can contribute to patient distress and reduced trust in healthcare environments.

Purpose: This quality improvement project aimed to improve care for transgender patients by educating anesthesia providers to improve confidence, comfort, and knowledge in using gender-inclusive communication, particularly addressing misgendering in the perioperative setting.

Methods: Guided by the Plan-Do-Study- Act model, the intervention included an introductory video and a one-hour in-person education session. Educational components included a video of a misgendering scenario, followed by a guided group discussion, role play exercises, practice inquiring about a patient's pronouns, and a debriefing. Post-education session surveys measured confidence, knowledge, comfort and attitudes. Descriptive statistics was used to analyze results.

Findings: Twenty-three anesthesia trainees participated. Following the intervention, 91% of participants reported increased confidence in using gender-inclusive language, 96% reported improved understanding of culturally competent communication strategies, and 78% reported increased awareness of how to respond to misgendering. Comfort levels in addressing misgendering improved overall, with no participants reporting neutrality or discomfort on the topic post-education session.

Discussion: This project demonstrated that a structured, interactive education session can enhance anesthesia providers' competence in delivering gender-affirming care. Findings align with existing literature highlighting the benefits of inclusive education in improving provider preparedness. The project underscored systemic barriers to addressing misgendering, such as fear of repercussions and lack of institutional awareness, suggesting that broader organization change is necessary. Integrating similar training into standard anesthesia clinical education could improve patient experiences and contribute to healthcare equity for transgender individuals.



Bridging Comfort and Care: Integrating Palliative Approaches in COPD Management Through Screening

Kirstin M. Brainard, MSN, ARNP, AGACNP-BC, DNP-FNP Student

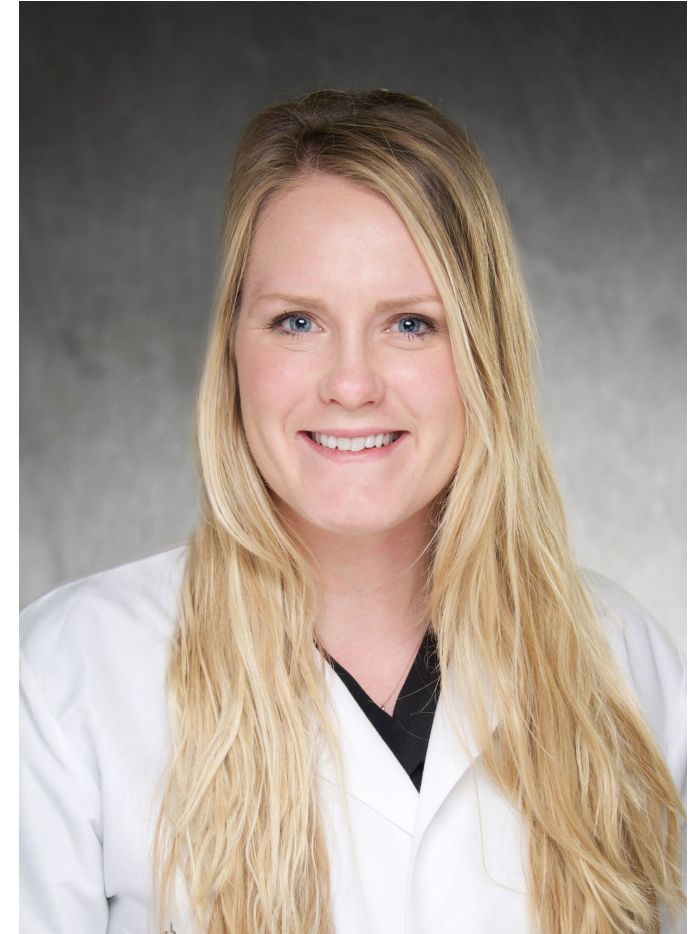
Background: Chronic obstructive pulmonary disease (COPD) is a progressive respiratory disease with high symptom burden and healthcare utilization. Patients with COPD are referred to palliative care far less than other progressive or life-limiting diseases (Gore, Brophy, & Greenstone, 2000). Palliative care involvement benefits patients by symptom management, preparedness for disease progression, and advance care planning through advance directives and goals of care discussions.

Purpose: The purpose of this project was to increase the utilization of palliative care in the COPD population by creating a screening and referral process through use of a validated screening tool.

Methods: The Iowa Model was used for this EBP project. George et al.'s (2015) Palliative Care and Rapid Emergency Screening (PCaRES) was the validated screening tool selected for this project and was implemented in an outpatient pulmonary clinic. This tool was converted to a Qualtrics survey with a QR code for easy access. Providers screened COPD patients with the PCaRES tool and if indicated, referral to palliative care was offered.

Findings: Screening patients (n=53) with the PCaRES tool increased palliative care referrals by 300 percent which was clinically and statistically significant ($p = 0.039$). Advance directives increased by 2.3 percent which was not statistically significant. Hospital admissions and emergency department visits decreased by 19.5 percent and 17.5 percent which was statistically significant ($p = <0.001$).

Discussion: Screening patients in the pulmonary clinic was associated with a significant increase in palliative care referrals and a reduction in healthcare utilization. Forty-seven patients qualified for palliative care referral based on screening, however only six patients met with palliative care due to most declining referral. Six patients eventually met with palliative care. The findings in this project demonstrate the need for discovering barriers to acceptance whilst showing the benefit of screening to identify COPD patients who would benefit from palliative care.



Increasing Adult Diabetic Retinopathy Screening

Jaqueline L. Brice BSN, RN, FNP-DNP Student

Background: Diabetes is a chronic metabolic disease affecting millions globally, with rising prevalence and complications. When diabetes is poorly managed, it can lead to various complications, including damage to the coronary arteries, as well as peripheral and cerebral vascular diseases, neuropathies, nephropathies, and retinopathies. Diabetic retinopathy is a neurovascular complication of both type 1 and type 2 diabetes, a significant cause of vision loss and blindness in individuals aged 18 to 65 in the U.S. Without regular screenings, patients may be unaware of the condition until complications arise.

Purpose: Evidence indicates early diagnosis is crucial for preventing vision loss in asymptomatic individuals and slowing progression in those with symptoms. The American Academy of Ophthalmology (AAO) and the American Diabetes Association (ADA) recommend regular eye screenings for diabetic patients to detect early diabetic retinopathy stages.

Methods: This quality improvement project utilized the PDSA cycle over 6 months to improve education, documentation, and completion rates of diabetic eye exams for adults aged 18 to 75. The project involved a Primary Care Provider (PCP) in a rural family medicine clinic with an adult diabetic population of 155-161 patients.

Findings: Data analysis demonstrated a 16% increase in diabetic eye exams when comparing the end of 2023 to the end of 2024 with a p-value of 0.003%. In June 2024, 55% of patients completed their exams, rising to 69.6% by December 2024—a 14.6% increase.

Discussion: This project demonstrated that improving workflow in a family medicine clinic can significantly increase completed retinopathy exams and provide a cost-effective quality improvement strategy to improve diabetic eye disease outcomes. By increasing diabetic eye exam completion rates, we aim to lower patients' risk of organ damage and benefit the clinic financially under its value-based purchasing plan.



DNP Clinical Leader in Residence: Advancing Competency Based Training for Nurse Leadership Development

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Background

In response to the persistent gap in structured, competency-based orientation and development for emerging nurse leaders, the DNP Clinical Leader in Residence program was developed and piloted at a gerontological center for excellence. Despite national frameworks from AACN and AONL emphasizing the importance of graduate prepared and competency-based leadership training, many nurse leaders continue to rely on “on-the-job” learning.

Purpose

This project aimed to address that disparity by designing, implementing, and evaluating an immersive leadership residency tailored to support Doctor of Nursing Practice (DNP) students preparing for executive roles in healthcare.

Methods

Guided by the Plan-Do-Study-Act (PDSA) model, the DNP Clinical Leader in Residence program integrated real-world leadership experiences, mentorship, reflective practice, and competency-based training grounded in the AONL Nurse Leader Core Competencies. Participants engaged in strategic planning, financial management, interdisciplinary collaboration, and community engagement, with a strong emphasis on reflective journaling and mentorship. Data collection included pre- and post-program self-evaluations, stakeholder feedback, and content validation by expert reviewers.

Findings

Findings demonstrated significant improvement in leadership competency confidence, particularly in areas of systems thinking, change management, and professional accountability. Stakeholders rated the program highly for its alignment with strategic goals, effectiveness, and value to both the student and the organization.

Discussion

The success of the inaugural DNP Clinical Leader in Residence suggests that structured, experiential programs like the DNP Clinical Leader in Residence can effectively bridge the gap between academic preparation and practice readiness, enhancing both leadership capability and the potential for improved patient and organizational outcomes.



Empowering Heart Success at Home: Nursing-Led Education for Managing Heart Failure

Susan Burda, MSN, CCRN, ONC

Purpose: This quality improvement project aimed to assess the impact of a nurse-led heart failure discharge education intervention on nursing knowledge, patient perceptions of discharge teaching quality, and 30-day hospital readmission rates in a rural hospital setting.

Methods: Guided by the Iowa Model for Evidence-Based Practice, this four-phase project included baseline assessments of nursing knowledge and readmission data, followed by targeted educational sessions for nursing staff and standardized patient discharge teaching using a low-literacy educational brochure and reference card. Registered nurses (N=30) completed pre- and post-intervention knowledge assessments using the Heart Failure Management Assessment tool. Patient perceptions were evaluated with the Quality of Discharge Teaching Scale (QDTS) following 25 individualized teaching sessions. Thirty-day readmission rates were compared before and after the intervention using Fisher's exact test.

Findings: Nurse knowledge significantly improved post-intervention ($p < .001$). Patients reported high-quality discharge education, with QDTS mean scores exceeding 7/10 across all domains. However, there was no statistically significant reduction in 30-day readmission rates (pre: 10%; post: 10%). Barriers included inconsistent implementation and low adherence to the intervention protocol by nursing staff.

Discussion: While the nurse-led intervention successfully enhanced nurse knowledge and patient experience, it did not reduce readmission rates. This suggests that education alone may not be sufficient to impact rehospitalization and highlights the need for multifactorial strategies such as structured disease management programs and improved post-discharge support. Future work should explore sustained staff engagement, broader implementation in resource-limited settings, and the financial implications of patient-centered care initiatives.

Key words: heart failure, readmissions, rural health, discharge education, quality improvement, patient education, nursing knowledge, evidence-based practice, post-discharge support.



Improving Sedation Practices For Intubated and Ventilated Patients in Critical Access and Rural Hospitals

John Carroll, BSN, RN, DNP-CRNA student

Background: Critical access and rural hospitals face unique challenges in managing critically ill patients, particularly those requiring intubation and mechanical ventilation. Inconsistent sedation practices and infrequent documentation of sedation scales, such as the Richmond Agitation-Sedation Scale (RASS), can lead to adverse patient outcomes. **Purpose:** This Doctorate of Nursing Practice (DNP) project aimed to develop a comprehensive educational program that enhances the proficiency and confidence of nurses in managing sedation and care for intubated patients, leading to better documentation practices and improved patient care. **Methods:** A pre- and post-intervention design was utilized. Registered nurses (n=14) completed a needs assessment survey, followed by online educational modules on rapid sequence intubation and sedation management. Pre- and post-module knowledge assessments and self-reported comfort levels were measured. RASS documentation rates were collected pre- and post-intervention. Data were analyzed using descriptive statistics and independent t-tests. **Findings:** Post-module quiz scores significantly improved from a mean of 71% to 98% ($p=0.00019$). All participants reported increased knowledge, and 86% reported increased comfort in managing intubated and ventilated patients. RASS documentation rates increased from 33% to 86% post-intervention. **Discussion:** Asynchronous online educational modules are effective in improving nurses' knowledge, comfort, and documentation practices regarding sedation management in a rural ED. This project demonstrates the potential of targeted education to enhance nursing practice and patient safety in resource-limited settings. Future research should focus on long-term sustainability and broader implementation across rural healthcare systems.



Identifying Food Insecurity Affecting Rural Iowa Children

Kylee Cibula BSN, RN, DNP Student

Background: Food insecurity (FI) is a social state of limited or reduced nutritional intake, linked to worsened health outcomes, obesity, nutrient deficiencies, emotional issues, and learning difficulties. FI disproportionately affects single-mother households, minorities, and rural populations. **Purpose:** This project aimed to implement standardized FI screening for children within a rural Iowa healthcare clinic and connect families to resources. Objectives included staff education, creating a standardized screening process, and receipt of resources. The ultimate vision was to provide emergency food boxes in-clinic through creation of agency partnerships. **Methods:** A quality improvement project was conducted using the Model for Improvement design framework. The project was deemed exempt and determined to be non-human subjects' research. The process included creating strategical alliances between a rural health clinic, local food pantry, regional food bank, and Feeding America. A standardized staff education session with pre- and post-intervention surveys, routine FI screening implementation using the Hunger Vital Sign (HVS) with monthly data collection, and integration of community resources built into the electronic health record (EHR). **Findings:** Group staff training was efficient with 95.8% completion rate. Staff recognition of FI as a community issue impacting child health rose from 78.5% pre-intervention to 96.8% post-intervention. In the six months before implementation, 17 patients were screened with no FI cases identified. Post-intervention, 1,075 were screened, identifying 105 FI-positive patients—a 9.7% positivity rate. Ninety-six percent of patients received resources during the project period. **Discussion:** Routine screening with the HVS proved highly effective in detecting FI. As the first partnership of its kind, the collaboration successfully secured valuable resources, resulting in the distribution of over 1,200 pounds of emergency food to patients.



Implementation of a Split-Flow Process in the Emergency Department

Kim Copeland BSN, RN, CEN, FNP-DNP Student

Background: Emergency departments (EDs) across the country face increasing challenges from non-emergent cases, leading to overcrowding, long wait times, decreased staff satisfaction, and higher rates of patients leaving without being seen (LWBS). A community-based Midwest hospital saw a 20% increase in daily patient volume post-pandemic, with a majority presenting for non-emergent issues. Evidence supports using a split-flow to create alternative patient pathways at triage to increase patient satisfaction and decrease the length of stay for discharged patients.

Purpose: This quality improvement project aimed to decrease LWBS, reduce the length of stay (LOS) for Emergency Severity Index (ESI) level 4 and 5 patients, and improve provider satisfaction.

Methods: The Plan-Do-Study-Act (PDSA) framework was used to design, implement, and evaluate the intervention. A split-flow model was introduced to reroute low-acuity patients to a designated area for faster evaluation and treatment. Staff were educated with electronic information. Data were collected from September 2024 to January 2025 through EPIC SlicerDicer and compared to the same period in the prior year. This included 14,415 patients in total, and 3600 were ESI level 4. Staff satisfaction was measured via post-implementation surveys.

Findings: The split-flow model resulted in a 0.08% (23 patients) overall reduction in LWBS rates. There was an average of 7 7-minute decrease in visit time, one month saw a 26-minute decrease. Staff feedback indicated that while only 50% felt it improved patient flow, 80% believed the process was necessary.

Discussion: Although the project didn't fully achieve its targets, the partial improvements and insights gathered suggest that a split-flow process holds promise in enhancing ED efficiency and patient care. Limitations included inconsistent staff training, limited physical space, and provider resistance to changing workflows. Future efforts should prioritize infrastructure improvements and staff education to support sustainable change. Overall, the project highlighted the value of targeting lower-acuity patient flow to reduce ED congestion, improve satisfaction, and increase the recovery of lost revenue.



Improving Communication of Intensive Care Delirium to the Health Care Team

Serena L. Curler MSN, ARNP, ACNP-BC, DNP-FNP Student

Background: About 40% of patients with ICU delirium have persistent cognitive impairment months after an ICU stay. Communicating ICU delirium impacts timely cognitive evaluation and referral to therapies that can improve functioning and quality of life. There is a lack of reporting and documentation of ICU delirium in intensive care notes and discharge summaries.

Purpose: To improve communication and documentation of ICU delirium up to hospital discharge to impact follow-up and long-term outcomes.

Methods: The Plan Do Study Act framework was used and 100 adult ICU patients with delirium were included. Pre and post implementation chart reviews were conducted for six weeks and five months, respectively, and the presence or absence of delirium data was noted. An evidenced-based delirium template for providers was implemented. Education was provided to intensivists, ICU nurses, and hospitalists on the importance of communicating ICU delirium. A delirium family teaching sheet was adapted for these patients with non-terminal delirium. Pre and post surveys measured delirium knowledge of the ICU nurses and intensivists.

Findings: Intensivist documentation of delirium increased (0% to 41%; $p < 0.001$). Use of any delirium term increased (45% to 84%; $p < 0.001$) and the improvement sustained at a rate $> 80\%$. Discharge summaries with delirium increased (0% to 17%; $p = 0.05$) and delirium recommendations increased (25% to 41%; $p > 0.05$). Staff demonstrated increased accurate knowledge of ICU delirium by $> 62\%$ following the education.

Discussion: An evidence-based delirium template and staff education changed the course of communication and documentation of delirium for many lives. Recommendations were to educate new hire providers on the delirium template and to post the delirium family teaching sheet in all ICU rooms.



Advanced Practice Providers Addressing Burnout Through Mindfulness

Rhonnie Davis, PMHNP

Abstract

- **Background:** Mental health advanced practice providers (MHAPPs) face significant burnout, exacerbated by factors including provider shortages and recent global mental health challenges. This is particularly critical in areas with existing mental health provider shortages, like Iowa. Burnout among MHAPPs impacts provider well-being and potentially patient care quality.
- **Purpose:** This evidence-based quality improvement project aimed to assess the feasibility of implementing a mindfulness-based intervention via Zoom to address burnout among mental health advanced practice providers (MHAPPs) at a large University hospital.
- **Methods:** A three-month progressive series of monthly one-hour Zoom sessions was implemented, focusing on mindfulness education, practice techniques, and group discussion. The Iowa Implementation for Sustainability framework was used to guide the project. Data was collected using the Five Facet Mindfulness Questionnaire (FFMQ) and the National Institute of Safety and Health Worker Well-Being Questionnaire (NIOSH WellBQ) pre- and post-intervention. Participation rates and mindfulness practice adherence were also tracked.
- **Findings:** Only 54% of eligible participants engaged in the sessions, and the weekly mindfulness practice was not measurable due to low response rates. Although mean scores for mindfulness and well-being showed numerical increases across time points, these changes were not statistically significant.
- **Discussion:** The project demonstrated its feasibility and findings highlighting the need for further investigation into strategies to enhance engagement and participation in wellness interventions for busy MHAPPs. Qualitative feedback suggested the value of social interaction and peer support among participants.



Enhancing Acute Distress Management in Preschool-Aged Pediatric Oncology Patients

Taylor Dirks, MSN, RN, DNP PNP-PC Student

Background: In the United States, one in 285 children will be diagnosed with cancer, and over fifty percent of children identify their cancer journey as distressing. Acute distress, or intense psychological suffering, results from cancer-related treatments, hospitalizations, unknown outcomes, and even reintegration of daily life. The preschool-age population has the highest risk of developmental and intellectual regression from repeated distressing events. Evidence-based standards for managing acute distress in this population are available, but utilization of interventions is often inconsistent. Empowering caregivers to use non-pharmacologic strategies for their child in distress can help ease their stress, which can positively influence child behavior. A redesigned distress management tool, initially developed for adults, was integrated with evidence-based strategies tailored for distress support in preschool-aged children. **Purpose:** The purpose of this evidence-based project was to enhance acute distress management by increasing knowledge and confidence in caregivers about recognizing and managing distress in newly diagnosed preschool-aged oncology patients. **Methods:** This project involved designing and implementing a Distress Action Plan (DAP) while utilizing the Pediatric Emotional Distress Scale (PEDS) to evaluate distressing behaviors and equip caregivers with strategies for recognizing and managing distress in their child. **Findings:** Of the 6 patients/caregivers reached during the project implementation, 5 were introduced to the DAP. In the reassessment period, caregivers showed increased average responses in their ability to recognize stress triggers and knowledge to use calming techniques for their child in distress. All reassessed caregivers engaged with the DAP. **Discussion:** The implementation of the DAP and PEDS facilitated conversations between caregivers and the psychosocial oncology nurse about distressing behaviors and coping mechanisms. This was clinically significant, as it supported the emotional well-being of preschool-aged oncology patients and their families while reinforcing evidence-based strategies as an essential component in their plan of care.



Advance Care Planning for People Experiencing Homelessness

Ashley Duncan, RN, BSN, DNP-FNP student

- **Abstract**

- **Background:** There are high rates of chronic conditions (i.e. substance use, mental illness, diabetes, heart disease) and mortality within the homeless population, resulting in a life expectancy that is much lower than the average American (NAEH, 2023; USICH, n.d.). Yet many people experiencing homelessness do not engage in advance care planning (ACP) discussions (Cortes & Meyer, 2022). Studies have found the PREPARE for Your CARE Program to be an effective AD for this population (Kaplan et al., 2020; Sudore et al., 2018).
- **Purpose:** This EBP project aimed to establish an advance care planning process for people experiencing homelessness, utilizing the PREPARE for Your Care program and advance directive (AD).
- **Methods:** An EBP project was conducted with 56 chronically homeless individuals who are currently in permanent supportive housing (PSH) and seven case managers. Case managers were provided with an ACP workshop and case manager knowledge, attitudes and perceptions of ACP were evaluated using a pre-/post-survey. Additionally, completion rates of ADs were collected to assess response to PREPARE for Your Care Program. Creation and proposal of an End-of-Life Policy for the organization.
- **Findings:** Results indicated a clinically relevant improvement in case managers' knowledge, attitudes, and perceptions. Case managers improved their knowledge scores from an average 3.14/5 on the pre-survey to 4.56/5 on the post-survey. Seven of the nine items on the four point-Likert-Scale on perceptions and attitudes improved in score. Additionally, 21/56 (37%) chronically homeless tenants had a completed AD at project completion. Furthermore, the End-of-Life Policy was adopted by the organization.
- **Discussion:** The findings suggest that the PREPARE for Your Care program was an effective method for educating case managers on ACP, thereby increasing the chances of people experiencing homelessness to engage in ACP and have an opportunity to complete an AD.



Implementation of the COMFORT Communication Model for Improved Mental Outcomes Among Informal Caregivers of Hospice Patients

Katy Erickson, MS, ARNP, DNP Student

Implementation of the COMFORT Communication Model for Improved Mental Outcomes Among Informal Caregivers of Hospice Patients

Abstract

Background: More than one in five people in the United States care for a loved one at the end of life. Many people receiving end-of-life (EoL) care prefer to stay at home as long as possible. Approximately 70% of patients receiving EoL care in the United States live at home. The caregiving responsibilities are then assumed by the patient's family and friends, or informal caregivers. The mental health of informal caregivers is often overlooked due to insufficient communication and barriers with hospice staff. Providing hospice staff with additional education in communication skills geared toward the families and informal caregivers of people at the end-of-life can lead to better care and improved patient outcomes. The COMFORT Communication Model includes seven principles of effective communication and is based on a narrative nursing approach. **Purpose:** To improve the mental health outcomes of informal caregivers. **Methods:** The IRB deemed this project not human subjects research. The model used was the Iowa Model for Evidence-Based Practice. The project took place over 6 months within a Midwest hospice organization. The participants included the 14 hospice staff and six hospice informal caregivers. **Findings:** The hospice staff were provided the COMFORT Communication Model training in person on two separate occasions, with 14 out of 15, or 94%, completing the training. According to the results of the pre- and post-confidence surveys, the hospice staff's confidence in discussing end-of-life care increased by 18% after they received the COMFORT Communication Model training. Two out of three informal caregivers reported decreased anxiety after the staff finished the training. **Discussion:** The COMFORT Communication Model is an effective tool to assist hospice staff in alleviating informal caregiver burden through improved communication about end-of-life care. Despite a poor return rate, participating informal caregivers reported decreased anxiety. This project highlighted both the need and impact we can make in supporting the mental health of informal caregivers.



Keywords: Hospice, communication, informal caregivers, mental health

Improving Success in Obtaining Peripheral Intravenous Access in Pediatric Patients

Sarah Evans, BSN, RN, PNP-AC-DNP student

Background Peripheral intravenous catheter insertion is a crucial intervention that is necessary in at least 80% of hospitalized pediatric patients (Kanaley et al., 2022). On average, 2.2 insertion attempts are required for successful PIV insertion (Kanaley et al., 2022), and 50% may require up to 4 attempts (Kleidon et al., 2021). Failed attempts lead to emotional distress, vasculature trauma, and poor outcomes (Elkhunovich et al., 2016; Kleidon et al., 2022).

Purpose To improve PIV insertion success rates by implementing a DIVA Key that includes patient assessment, clinician self-assessment, escalation pathway, comfort cares, and adjuncts (Schults et al., 2022).

Methods The Iowa Model of Evidence-Based Practice was used to structure this project (Reavy, 2016). The problem identified was an ineffective PIV insertion policy. A literature search revealed a lack of clear clinical practice guidelines for the pediatric PIV insertion process. A DIVA Key was implemented on a 23-bed general pediatric floor at a midwestern children's hospital. Data was collected via pre- and post-implementation surveys.

Findings The pre-implementation insertion attempt average was 1.79, and the post-implementation attempt average was 2.02. A Shapiro-Wilk analysis found this increase statistically insignificant ($p = 0.313$; $\alpha = 0.05$). Appropriate use of the escalation pathway positively impacted insertion attempts with a Spearman Correlation of 0.51 ($p < .001$; 95% CI = .25, .71), indicating a large effect size. 78.6% of the pediatric nurses reported that the DIVA Key improved the PIV insertion process (*Intellectus Statistics*, 2019).

Discussion Assigning a DIVA risk did not statistically improve overall PIV insertion success rates. Lack of evidence inhibits the identification of pertinent patient assessments to predict the risk of DIVA. However, appropriately using the escalation pathway improves insertion attempt success. The key also empowers the nurses to advocate for their patients by escalating the initial PIV insertion to the appropriate inserter, decreasing failed attempts.

Keywords: pediatric, intravenous access, vascular access, intravenous catheter, escalation pathway, PIV, peripheral, difficult



Improving Post-Discharge Care for Community Mental Health Crisis Services Patients

Katherine Folkerts, RN, BSN, DNP student

- Abstract
 - Background: Community mental health access centers provide lifesaving care to individuals in mental health crisis and improve the broader healthcare system's function. To optimize care, access centers must be flexible yet consistent in their follow-up with patients after crisis stabilization to gather feedback and coordinate subsequent care.
 - Purpose: This quality-improvement project aimed to improve an access center's patient feedback and follow-up processes. The project's formal goals were to increase rates of successful patient contact after discharge and to enhance staff's confidence and knowledge in this aspect of their role. Informal goals included improving patient satisfaction, increasing engagement in outpatient care, and decreasing rates of re-admission or hospitalization.
 - Methods: The Plan-Do-Study-Act (PDSA) model was utilized to implement the project. Changes were made to existing discharge surveys, follow-up templates, and telephone prompts, as well as the workflows surrounding them. These changes were made to simplify and standardize practices, emphasize proactive engagement with discharged patients, and generate information that is useful in improving future care. Staff were educated on the changes and the importance of these processes.
 - Findings: Rates of patient contact after discharge improved from 28.6% (3-month average pre-implementation) to 43.8% (3-month average post-implementation). This did not meet the project's goal of 80% contact, but did signify a meaningful change. Staff confidence and knowledge goals were met, measured through anonymous Likert surveys before and after process education.
 - Discussion: The observed improvements signify the success of these process changes. The PDSA model allows for continual adaptation in this rapidly changing environment, as the access center continues to evolve within the community. Future directions, such as diversification of follow-up modalities to improve accessibility, were identified through the project.
 - *Keywords:* access center, community mental health, patient follow-up, care coordination



Assessing Depression in a Homeless Youth Center Through a Trauma-Informed Care Lens

Katerina Francke RN, BSN, DNP-PMHNP Student

- **Abstract**

Background: Homelessness is a significant issue that leads to poorer health outcomes in the United States. Youth facing housing insecurity are especially vulnerable to depression and are twice as likely to develop the disorder compared to their housed peers. Early mental health screenings and trauma-informed care approaches were identified in the evidence as effective interventions to connect these individuals to mental health care.

Purpose: The purpose of this project was to identify homeless youth at risk for mental illness in the community. The objectives of the project included improving staff member knowledge of trauma-informed care (TIC), accurately screening youth for depression, and referring to a mental health therapist when necessary.

Methods: This quality improvement project took place at a midwestern homeless youth center and was implemented using the Plan-Do-Study-Act (PDSA) Cycle. TIC education from the “Understanding Trauma and Its Impact” training module provided by the National Center for Safe and Supportive Learning Environments was presented to staff members. Patient Health Questionnaire-9 (PHQ-9) screenings were incorporated into admission intake paperwork to assess for the presence and severity of depressive symptoms. Results of the PHQ-9 screenings and mental health therapy referrals were collected and transferred into Excel for data analysis.

Findings: All fourteen staff members participated in the TIC education presentation and surveys. Staff member TIC knowledge improved by 26.1%, comparing pre-education to post-education results. Compared to pre-education, fifty-two PHQ-9 screenings were completed throughout the project. Of those who screened positive, 77.7% were referred to a mental health therapist on-site or through community resources.

Discussion: This project has highlighted the fact that there is a major concern with depression among homeless youth, and that early mental health screenings and trauma-informed care interventions are effective when utilized in a community setting. This process facilitated referrals for individuals who may not have sought help otherwise, demonstrating clinical significance.



Improving Hand Hygiene Compliance in the ICU

Jessica Fung BSN, RN, AG-ACNP Student

Background: Healthcare-associated infections (HAIs) affect 1 in 31 patients and contribute to nearly 75,000 deaths annually. The rise of *Candida auris*, a multidrug-resistant pathogen with mortality rates up to 60%, has heightened the need for infection control (CDC, 2023). Although hand hygiene is the most effective method to prevent HAIs, compliance in ICUs remains suboptimal—often below 50%—due to workflow demands and limited access to hand sanitizer (WHO, 2009; Rybak et al., 2021). Similar barriers were identified at a large Midwestern academic hospital's medical ICU.

Purpose: To improve hand hygiene compliance in a 26-bed medical ICU using a multimodal intervention guided by the Iowa Implementation for Sustainability Framework.

Methods: The intervention included staff education, standardized placement of hand sanitizer bottles on bedside supply carts, visual reminders, and real-time observational feedback. Data were collected through direct observations across six key hand hygiene opportunities, self-assessment surveys, and infection surveillance using the hospital's Tableau system. Statistical analyses included chi-square tests, Mann-Whitney U tests, and paired t-tests.

Findings: Compliance increased from 63.6% to 76.4% post-intervention ($p = .005$, Cramér's $V = 0.14$). Self-assessment scores improved from 0.79 to 0.84 (on a 10 cm scale), significantly higher when sanitizer was accessible ($p = .004$). Though not significantly, knowledge scores rose (mean 27.8 to 31.2) ($p = .261$). CLABSI rates declined from 1.0 to 0.0 in the final three months; CAUTI remained at zero.

Discussion: This project demonstrated that structured, low-cost interventions can significantly improve hand hygiene compliance when embedded in workflow and supported by environmental modifications. The findings underscore the importance of accessible sanitizer placement, ongoing education, and leadership support to sustain long-term gains in infection prevention and patient safety.



Nurse Leader Training Program

Brandi L. Garrett, MSN, RN, CNL, NE-BC, DNP Student

Background

There is lack of adequate training and a widespread need for evidence-based nurse leader competencies, training, and support to enable nurse leaders to thrive and succeed in their roles.

Purpose

The purpose of this project is to implement a standardized training program for new nurse leaders, that is built on foundational leadership principles and supported by evidence-based competencies and training modules.

Methods

Utilizing the Iowa Model, and Iowa Implementation for Sustainability Framework, this project was completed in a healthcare system that includes 68 adult acute care beds, 15 adult inpatient mental health beds, and multiple outpatient clinics. Utilizing the evidence-based American Organization of Nursing Leaders (AONL) Nurse Manager competency self-assessment, and evidence-based mentorship, 10 cohort members successfully completed the program. This competency assessment is compiled of five domains: Communication and Relationship Building, Healthcare Environment and Principles, Leadership, Professionalism, and Business Skills and Principles.

Findings

All five pre- and post-intervention median scores improved, with post-intervention median score results over three on a 1-5 scale. Pre- and post-intervention nurse manager turnover decreased from 22% to 7%, and 100% of cohort members were assigned a mentor. Post-intervention questionnaire revealed that 100% cohort members stated would recommend this program to other nurse leaders in the organization and 90% reported that the mentor-mentee relationship was beneficial. Pre- and post-intervention AONL Nurse Manager Competency Self-Assessment scores were analyzed utilizing a Wilcoxon signed-rank test. Results were statically significant with p -values of less than 0.05 for all five competency domains.

Discussion

An evidence-based, standardized nurse leader training program positively impacts nurse leaders. Through education, mentorship, and pre- and post-intervention competency self-assessment, nurse leaders gained essential training to succeed in their role.

Keywords: nurse leader, competency, training, mentorship



Mitigating Discriminatory Behavior in DNP Clinical Learning Environments

Nicole Gleason Limoges, MSN, RN, FNP-PMHNP, DNP Student

Background: Bias and discrimination are pervasive in healthcare settings, nursing practice, and nursing education. Ninety four percent of nurses report racism and discrimination in the nursing profession; 53% reported microaggressions as being part of their nursing school's culture. Nursing leaders in education, practice, and regulation called for transformational change to overcome bias and discrimination in nursing education. One environment foundational to all levels of nursing education is the precepted clinical experience. There is an expressed need to provide clinical preceptors with resources to address discriminatory behavior and to role model mitigating discrimination in clinical learning environments.

Purpose: To pilot an evidence-based online module with Doctor of Nursing Practice (DNP) clinical preceptors that provides education and skills training for mitigating discriminatory behavior in the clinical environment.

Methods: Employing the Iowa Model Revised[®] Evidence-Based Practice framework, this pilot project, deemed not human subjects research, included the development of an online interactive training module, and utilized a pretest-posttest evaluation of DNP clinical preceptors' knowledge, perceptions/ attitudes, and self-reported current practice behaviors.

Findings: 60% of participating clinical preceptors reported their employers do not provide tools to mitigate discrimination. Increases in DNP clinical preceptor perceptions/attitudes ($p = .139$) and self-reported current practice behaviors ($p = .007$) were identified. Notable increased behaviors include ease of identifying discriminatory behavior, being equipped with a plan, and utilizing a method or framework to address discriminatory behavior.

Discussion: An online training module is one approach for academic institutions to strengthen academic-clinical partnerships across geographical locations, increase clinical preceptor's access to educational content critical to enhancing preceptorships, and to increase preceptor self-efficacy in mitigating discrimination. More opportunities and experiences are needed to truly effect change.



Iowa's Advanced Registered Nurse Practitioner Preceptor Tax Credit

Kelcie Gunderson, BSN, RN, DNP-FNP Student

Background: Iowa faces a critical shortage of Advanced Registered Nurse Practitioner (ARNP) preceptors, with only 1,200 of approximately 9,000 licensed ARNPs serving in this role. This shortage restricts ARNP program enrollment, delaying student progression and contributing to broader issues in healthcare access. Nationally, approximately 10,000 qualified applicants are turned away from APRN programs annually due to insufficient preceptors. **Purpose:** This Doctor of Nursing Practice (DNP) policy project aimed to introduce legislation providing a refundable state income tax credit to incentivize ARNPs to precept students. The amount requested was \$1,000 per 100 hours precepted with a max of \$2,000. The goal was to expand clinical training capacity, particularly in underserved areas, and support the state's healthcare workforce development. **Methods:** Guided by the Iowa Legislative Services Agency's process, the initiative involved drafting a bill, securing legislative sponsors, and engaging stakeholders such as the Iowa Hospital Association, Iowa nursing education programs, and ARNP professional organizations in Iowa. Advocacy strategies included in-person meetings, email campaigns, and a grassroots outreach pilot using the American Nurses Association (ANA) Voter Voice platform. **Findings:** The tax credit bill was introduced in the Iowa House and Senate (HF 327 and SF 391), passing unanimously through subcommittees but remaining under consideration in the Ways and Means Committee. Stakeholder engagement yielded strong support, and outreach efforts highlighted broad interest in resolving clinical placement shortages. **Discussion:** While the bill's passage is pending, this initiative laid a strong foundation for future advocacy. It demonstrates a scalable model to address preceptor shortages through legislative and stakeholder collaboration. Continued efforts should focus on preceptor incentives and tracking mechanisms to measure the long-term impact.



Maternal Postpartum Depression Screening at High Risk Infant Follow Up Clinic Visits

Sam Hanzlik, MSN, RN, PNP- PC DNP student

Abstract

Background: Postpartum depression (PPD) has been reported to affect mothers of past Neonatal Intensive Care Unit (NICU) patients at very high rates. PPD can have negative consequences including decreased bonding, inability of the mother to care for the infant, and many infant developmental difficulties. At a High Risk Infant Follow Up (HRIFU) clinic in the Midwest that treats patients discharged from the NICU, mothers attending these appointments were not being screened for PPD. **Purpose:** This project was intended to improve identification of PPD in mothers of previous NICU patients through the implementation of a PPD screening tool at a HRIFU clinic. **Methods:** The Iowa Model was the framework used to structure this project. The Edinburgh Postnatal Depression Scale (EPDS) was the screening tool implemented at the HRIFU. Data was collected on the providers knowledge and attitudes of the EPDS through a questionnaire, pre and post implementation. Mothers were screened with the EPDS and data was collected for positive screenings and referrals to mental health care providers for the positive screenings. **Findings:** The results showed an increase in providers knowledge and attitudes towards implementing the PPD screening at the HRIFU clinic. An increase in screening of mothers for PPD was found with 80.8% screened and 87% of those with a positive screening were referred to a mental health care provider. A high rate of 25.9% of mothers screened positive for PPD. **Discussion:** Through the implementation of a PPD screening, more mothers were identified to have PPD and were referred to a mental health care provider. This could have lasting positive impacts on both the mother and their child.

Keywords: postpartum depression, high risk infants, mental health screening, Edinburgh Postnatal Depression Scale, Neonatal Intensive Care Unit



Decreasing Burnout with Mindfulness Techniques in Intensive Care Nurses

Olivia Hildreth, BSN, RN, FNP-DNP Student

Background: Nurses that work in intensive care units (ICUs) are at high risk of burnout due to the critical conditions and deaths of their patients. Burnout is associated with emotional exhaustion, depersonalization and a higher likelihood of errors. Mindfulness based interventions have been proven effective in reducing burnout in ICU nurses. Although burnout is recognized as an issue, effective interventions are not consistently implemented to address it.

Purpose: To examine burnout among nurses in an intensive care setting and use mindfulness interventions to decrease it.

Methods: Nurses were recruited and offered an incentive, which included a free month of yoga and fitness classes. A pre-survey to measure burnout was sent out and included the Oldenburg Burnout Inventory (OLBI). The intervention consisted of two 2-hour interactive mindfulness classes taught by physicians via zoom. A post-survey was sent out via email to measure burnout again using the OLBI, as well assess knowledge and attitudes toward the intervention. This intervention had a positive effect but reached a limited number of participants. Mindfulness posters were developed and hung throughout the ICU. These included QR codes linked to a brief burnout self-assessment before and after short, guided mindfulness videos.

Findings: There was a clinically and statistically significant reduction in total burnout score after the intervention ($p < 0.05$)

Discussion: Participants showed increased knowledge of mindfulness techniques and positive attitudes surrounding the intervention. A greater number of individuals utilized the easily accessible mindfulness posters which supported sustainability. There was decreased burnout for participants after the mindfulness intervention and increased engagement when mindfulness was delivered in a more accessible format.



The Impact of Implementing Interprofessional Mobility Champions

Amber Hoffman, RN, BSN, CCRN, FNP-DNP Student

Background: Early progressive mobility (EPM) is a vital piece of intensive care unit (ICU) liberation. Benefits of EPM include decreased ventilator time and decreased incidence of ventilator-associated pneumonia, deep vein thrombosis, and hospital-acquired pressure injury. EPM can also improve functional mobility. Additionally, EPM helps to decrease length of stay and healthcare costs. There are barriers to completing EPM, including lack of time and staff, patient and staff safety, and increased stress.

Purpose: Due to the benefits of EPM, there needs to be an increased focus on EPM to improve patient outcomes. The purpose of this Doctor of Nursing Practice (DNP) project is to improve EPM in critically-ill patients.

Methods: This project was completed in the intensive care units and progressive care unit at a large hospital in the Midwest. The project followed the Iowa Model Revised: Evidence-Based Practice to Promote Excellence in Health Care. A team of Interprofessional Mobility Champions was implemented in the critical care and progressive care units. The team of mobility champions helped educate staff, promote EPM, and assist with mobilization.

Findings: There was an increase in mobilization of patients as a result of implementing mobility champions. Additionally, more discussions regarding mobility and physical therapy and occupational therapy were held during interdisciplinary rounds. Nursing knowledge did not decrease utilizing these methods. Length of stay decreased by 16%.

Discussion: There were clinically significant findings, including the increase in mobilization of critical care patients and discussion of mobility during interdisciplinary rounds. Different methods should be utilized in future quality improvement projects to increase nursing knowledge of mobility. Overall, a team of Interprofessional Mobility Champions created a positive impact on patients and healthcare staff.



Improving the Well-being of Mental Health Staff through Mindfulness-Based Stress Reduction

Sharleen Hughes, BSN, RN, PMHNP-DNP Student

Background: Burnout is a significant issue among mental health professionals, with over 50% reporting symptoms that adversely affect their mental health, the quality of care provided, and workforce stability. The challenges have been exacerbated in the post-pandemic environment, highlighting the need for sustainable, evidence-based interventions. Mindfulness-Based Stress Reduction (MBSR) has been shown to improve emotional resilience and reduce burnout in healthcare settings. **Purpose:** This Doctor of Nursing Practice (DNP) project aimed to implement a mobile, self-guided MBSR intervention to reduce burnout and enhance mindfulness among staff on an acute psychiatric unit. The primary goals were to show improvement in at least one mindfulness skill and reduce one burnout symptom. A secondary goal was to increase staff knowledge about burnout and mindfulness. **Methods:** Guided by the Iowa Model, this evidence-based practice project was conducted over 14 weeks using the Mindfulness Coach app. Pre- and post-intervention data were collected using the Oldenburg Burnout Inventory (OLBI), Professional Quality of Life Scale (ProQOL), and the app's Mindfulness Mastery Assessment (n=14). Pre- and post-education surveys assessed knowledge gains (n=14). A Pearson correlation evaluated the relationship between app engagement and mindfulness improvement. **Findings:** Results showed 100% of participants improved knowledge ($p < 0.0001$). Of the participants, 64.3% demonstrated enhanced mindfulness skills, while 78.6% and 64.3% reported reduced burnout symptoms as measured by the OLBI and ProQOL, respectively. Although these findings were not statistically significant, they reflect clinically meaningful trends. **Discussion:** Introducing a digital MBSR tool into routine staff workflows is a feasible and scalable approach to addressing burnout in high-acuity psychiatric settings. This intervention supported staff well-being, promoted self-care, and contributed to a cultural shift toward mindfulness in mental healthcare. These findings support future organizational strategies and advocate for ongoing investment in staff wellness.



Depression Screening in the Obstetrical Setting

Esther Huston, BSN, RN, PMHNP-DNP Student

Background: Perinatal depression (PND) is defined as an episode of major depression during pregnancy or up to a year after childbirth. Women with untreated PND are more likely to commit suicide, which is the leading cause of death in the perinatal period. Pregnancy is a time of maternal bio-psychological complexity in which untreated depressive symptoms can adversely impact prenatal attachment, birth outcomes, and breastfeeding difficulties, leading to increased risk for possible future poor developmental, psychiatric, and health outcomes for the offspring. Low birth weight, premature delivery, spontaneous abortion, preeclampsia, and other adverse health consequences have been identified with greater incidence in conjunction with the diagnosis of PND. In the United States, self-reported rates of PND are around 13.2%, with higher rates reported in low-income women as high as 50%. **Purpose:** The project aimed to increase the identification of PND symptoms at the first perinatal appointment and the 28-week appointment, with referrals when indicated, utilizing the Edinburgh Postnatal Depression Screener (EPDS). **Methods:** The project was conducted in an obstetrics clinic in a metropolitan city and was deemed not human subjects research. The population included pregnant individuals, and 683 EPDS screenings were completed between March and November 2024. **Findings:** Out of 683 completed EPDS forms, 103 screenings (15.08%) indicated the presence of PND symptoms. Of those, 82.52% resulted in referrals for further mental health evaluation or support services. The use of the EPDS led to increased identification of depressive symptoms and earlier intervention during pregnancy. **Discussion:** This project highlights the prevalence of depressive symptoms among pregnant individuals and supports the use of the EPDS as an effective screening tool during pregnancy. The results underscore the importance of routine screening at multiple points during the perinatal period, facilitating referrals and promoting improved maternal and infant outcomes. Early identification and intervention contributed to meaningful changes in practice.



High-fidelity mobile simulation training for critical access hospital nurses treating pediatric burn patients

Annelise Jacobson, MSN, RN, DNP-FNP Student

Background: High-fidelity simulation training is a valuable tool for medical and nursing education, but costs are prohibitive for small organizations like rural critical access hospitals. Patients with burns are more likely to live in low income and rural areas. There is limited literature on the use of simulation training for burn care in front line staff. **Purpose:** The purpose of this project was to utilize mobile simulation training for critical access hospital staff to improve nurse and provider knowledge and confidence regarding care of burn patients. **Methods:** This evidence-based practice project used a high-fidelity simulation of a pediatric explosion victim with burn and trauma injuries, performed with a mobile simulation unit in two critical access hospitals in a rural Midwest state. Participants completed a pre and posttest before and after the intervention. **Findings:** Participants demonstrated 55% increased knowledge of the Parkland Formula and improved accuracy in application of the Rule of Nines. Participants reported a 32% overall increase in confidence related to burn care and 72.1% increase in confidence related to the application of the Parkland Formula. The project was sustainable in the project site after project completion. **Discussion:** Participation in a simulation intervention improved participant knowledge, confidence regarding burn care, burn assessment tools, and pediatric burn care. Simulation intervention has potential for improvement in knowledge and confidence in multiple areas of burn and trauma care. Mobile simulation removes barriers small, rural organizations have in accessing high fidelity simulation training.



Patient Aftercare Following Transcranial Magnetic Stimulation

Amanda J Jilovec BSN, RN, PMHNP-DNP Student

Background: Major Depressive Disorder (MDD) is the leading cause of disability worldwide, affecting over 322 million people. Treatment-resistant depression (TRD) presents significant challenges, as many individuals with MDD fail to respond favorably to standard antidepressant medications. Transcranial Magnetic Stimulation (TMS), specifically repetitive TMS (rTMS), has emerged as a promising non-invasive option for individuals with TRD. However, there is a lack of standardized aftercare protocols or clinical guidelines for those who have received treatment. This contributes to poorer patient outcomes, a rise in chronic disease burden, and a potential to overlook those who may benefit from retreatment. **Purpose:** This project aims to implement standardized aftercare protocols for patients who have completed rTMS, enhancing the monitoring of depressive symptoms and identifying the need for retreatment. **Methods:** Adult patients diagnosed with TRD who completed rTMS treatment at an outpatient psychiatric clinic were evaluated. The Patient Health Questionnaire-9 (PHQ-9) was administered post-treatment, one month, and three-month intervals for symptom assessment. Educational sessions were conducted for clinic staff to improve their knowledge and use of the PHQ-9 to enhance project support and confidence. **Findings:** Staff knowledge about the PHQ-9 increased post-education, although the changes were not statistically significant. 89% of patients involved in the study returned PHQ-9 surveys. Notably, no participants scored above 10 on the PHQ-9, indicating a lack of severe depressive symptoms requiring referral for aftercare. **Discussion:** After nearly 20 years of FDA approval, there continues to be a lack of standardized aftercare for those who have received rTMS. This project underscores the necessity for standardized aftercare following rTMS treatment. While immediate outcomes did not indicate a significant need for additional interventions, the findings highlight a gap in ongoing patient monitoring protocols in clinical practice. Future studies should explore longer follow-up periods and address the challenges of sustaining treatment adherence and the reemergence of symptoms.



Early Progressive Mobility in the ICU Setting

Wade Johnson, BSN, RN, AG-ACNP-DNP Student

Background: Prolonged immobility in the Intensive Care Unit (ICU) is associated with post-intensive care syndrome (PICS), healthcare-associated pressure injuries (HAPIs), and extended ICU length of stay (LOS). Despite evidence supporting Early Progressive Mobility (EPM) protocols, these interventions remain underutilized (Needham et al., 2012; Bach & Hetland, 2022).

Purpose: This quality improvement project aimed to implement and evaluate a nurse-led EPM protocol in a large urban medical center to improve ICU-specific outcomes, including HAPI incidence, LOS, and discharge disposition.

Methods: The multifaceted intervention included staff education, interdisciplinary collaboration, patient and family engagement, and implementation of a standardized EPM protocol. Chi-square analyses were used to examine differences in HAPI occurrence, ICU LOS, and discharge disposition pre- and post-EPM implementation (Schallom et al., 2020).

Findings: Among 2,527 ICU patients, 84.25% were in the post-implementation group. A statistically significant increase in HAPIs was observed post-implementation ($\chi^2(1) = 10.88$, $p < .001$), suggesting the need for enhanced skin protection strategies during mobilization. A statistically significant increase in the number of patients with an ICU LOS of less than 5 days was found post-implementation ($\chi^2(1) = 4.36$, $p = .037$), indicating a shift toward shorter stays. Although not statistically significant, there was a favorable trend toward more home discharges among patients discharged alive ($\chi^2(1) = 1.70$, $p = .192$).

Discussion: Implementation of a nurse-driven EPM protocol was associated with improved ICU throughput as evidenced by a greater number of shorter stays and suggested a trend toward improved functional outcomes upon discharge. However, the increase in HAPIs underscores the need for concurrent emphasis on skin integrity. EPM protocols offer a scalable and replicable model for improving ICU care delivery and warrant integration with safety bundles to optimize patient outcomes (Roberts et al., 2016; Schweickert & Kress, 2018).



Six Core Strategies: A Trauma-Informed Framework for Reducing Restrictive Practices in Pediatric Behavioral Health Inpatients

Sierra Jones BSN, RN, PMH-BC Health Systems DNP Student

Background: The overuse of restraints and seclusion in child and adolescent behavioral health inpatient settings is concerning due to their lack of therapeutic benefit, ethical conflicts, potential for trauma, and longer hospital stays. Despite criticism dating back centuries, restraint episodes remain high, occurring in 27% to 50% of pediatric inpatient cases (Pértega & Holmberg, 2023). Restraints and seclusions involve physical containment when there is imminent danger (Chieze et al., 2019).

Purpose: This project aimed to reduce restrictive interventions by implementing the National Association of State Mental Health Program Directors' (NASMHPD) Six Core Strategies (6CS) framework on a 14-bed acute child and adolescent behavioral health unit (NASMHPD, 2006).

Methods: A multimodal intervention was conducted, incorporating leadership engagement, seclusion and restraint data analysis, and workforce development through trauma-informed care (TIC) and 6CS training. Tools such as a "badge buddy" for de-escalation and an enhanced debriefing checklist were implemented (Azeem et al., 2017; Boel-Studt, 2017; Brown et al., 2013; Duxbury et al., 2019; Eblin, 2019; Hale & Wendler, 2023). Data were collected through staff surveys, audits, incident reports, and leadership evaluations.

Findings: Staff TIC knowledge improved moderately but was not statistically significant. TIC strategy use did not significantly impact restraint outcomes, though qualitative data indicated alignment with TIC behaviors. Notably, restraint episodes increased post-intervention. Leadership scores related to evidence-based practice showed statistically significant improvement.

Discussion: While leadership engagement in evidence-based practice improved and staff demonstrated TIC-aligned behaviors, the goal of reducing restraints was not met. Contributing factors may include reduced patient census or challenging patient behaviors (Boulton et al., 2022). Further research is needed to explore the challenges of implementing TIC interventions like 6CS in pediatric behavioral health settings.



Implementation of Expedited Partner Therapy

Sarah Kane, MSN, ARNP, FNP-C

Abstract

Background In 2022, chlamydia was the most reported sexually transmitted infection (STI) in the United States with 1,649,716 cases followed by gonorrhea with 648,056 cases reported (Centers for Disease Control and Prevention [CDC], 2024). In Iowa, during 2023, there were 13,684 cases of chlamydia (Iowa Department of Public Health [IDPH], 2024a) and 3747 cases of gonorrhea (IDPH, 2024b). Black Hawk County had the highest rates per capita of both chlamydia (661 per 100,000 people) and gonorrhea (163 cases per 100,000 people) in the state of Iowa in 2023 (IDPH, 2024a; IDPH, 2024b). If left untreated, both chlamydia and gonorrhea may cause pelvic inflammatory disease which increases the risk of ectopic pregnancy, and possible infertility (Ghanem, 2022; Hsu, 2022). In males, chlamydia and gonorrhea is the most common cause of epididymitis under the age of 35 (Hsu, 2022). During pregnancy, if untreated, both chlamydia and gonorrhea can have catastrophic consequences (Ghanem, 2022; Hsu, 2022). The CDC has recommended expedited partner therapy (EPT) due to the prevalence of both diseases (CDC, 2021).

Purpose The purpose of this quality improvement project was to implement expedited partner therapy (EPT) at a federally qualified community health center in a small, midwestern city in an area with high rates of chlamydia and gonorrhea.

Methods The “Plan-Do-Study-Act” (PDSA) was utilized as a framework for this quality improvement project. “Smart Sets”, “Best Practice Alerts” developed in electronic health record.

Findings Patients were young and diverse. There was limited acceptance of EPT by patients.

Discussion EPT is clinically a worthwhile practice if it helps prevent one patient from experiencing sequelae of chlamydia and gonorrhea. Education is needed on EPT to the public and members of the healthcare community. Insurance needs to cover EPT prescriptions. Generating a prescription in electronic health records for EPT needs to be an easier process.

- *Keywords:* expedited partner therapy, gonorrhea, chlamydia, federally community health center, electronic health record



Improving Patient Experiences and Outcomes During Febrile Neutropenia in Pediatric Oncology Patients when Presenting to Rural Emergency Departments

Katherine Keeney, BSN, RN, PNP-AC DNP Student

Background: Fever is one of the most common causes for Emergency Department visits in the pediatric oncology patient population, with one in three patients developing febrile neutropenia at least once during their treatment course. These patients are at an increased risk of developing bacteremia if antibiotics aren't administered within 60 minutes from fever detection. Prompt evaluation during febrile neutropenia work-up has been an ongoing issue at rural facilities, leading to delays in antibiotic administration and a decreased level of patient satisfaction.

Purpose: To improve the care and satisfaction of patients and their families who are receiving oncology treatment at a Midwest academic children's hospital when treated for febrile neutropenia at outside Emergency Departments.

Methods: This Quality Improvement project utilized the Iowa Model of Evidence-Based Practice as its project design. Surveys were sent out to identify patient experiences and level of satisfaction at previously used facilities and to identify baseline nursing knowledge on febrile neutropenia before receiving education on the topic. Additional surveys were distributed to evaluate for an increase in nursing knowledge, and patient experiences and satisfaction after the education was completed at the pilot site.

Findings: Top causes of dissatisfaction for patients included port accessing, delays in time to treatment, and a lack of febrile neutropenia knowledge by their care team. Nursing knowledge improved after receiving education on febrile neutropenia. Patients seen at the pilot site had decreased port accessing attempts, receiving their antibiotics within one hour of arrival, and reported improved levels of satisfaction with their care.

Discussion: Improved nursing knowledge on the topic of febrile neutropenia, increased level of satisfaction of patients and their families, and improved patient care was achieved. Project limitations included a short implementation time period, low survey response rates, and a small number of patients seen at the pilot site.



Enhancing the Wellbeing of Primary Care Providers with Alterations in Inbasket Message Workflow

Mason Kerian, BSN, RN, FNP DNP Student

- Background: Electronic Health Record (EHR) inbasket messaging contributes significantly to primary care provider burnout by increasing administrative burden. Burnout negatively affects provider job satisfaction and wellbeing.
- Purpose: This Doctor of Nursing Practice (DNP) project aimed to reduce EHR-related burden and improve provider wellbeing by implementing a nurse-led triage workflow to streamline patient message management.
- Methods: Using a pre-post quality improvement design, the intervention was implemented in an outpatient family medicine clinic. A nurse triage team used a decision-making flowsheet to manage and route inbasket messages. Five providers participated. Data collection included counting and recording MyChart message volumes and pre/post surveys measuring provider satisfaction and perceived stress. Descriptive and inferential statistics were analyzed using Intellectus Statistics.
- Findings: Although the overall message volume did not significantly decline post-intervention (12.9 vs. 13.6 messages/day, $p = .35$), provider satisfaction increased (pre: 12.8; post: 13.4; $p = .037$). One-month post-intervention (January) did show a statistically significant drop in message volume (11.9/day; $p = .01$). Perceived stress scores increased (pre: 8.4; post: 9.0; $p = .047$).
- Discussion: The structured triage workflow modestly improved satisfaction without an immediate reduction in message volume. The increase in stress may reflect the initial adjustment period and seasonal factors. These findings suggest that while workflow changes can enhance perceived control, complementary strategies may be needed to reduce overall burden. Long-term data collection and larger sample sizes are recommended to evaluate sustainability and broader impact.



Preventing Intravenous Catheter-Related Bloodstream Infections

Alex Kordas BSN, RN, SRNA-DNP Student

Background: Catheter-Related Bloodstream Infections (CRBSIs) are costly and potentially fatal hospital-acquired infections. Among the most effective evidence-based interventions for reducing CRBSIs is the consistent use of alcohol-based disinfecting caps on needleless connector ports and syringe tips. Anesthesia providers, who frequently place and manage intravascular devices (e.g. central line, peripheral IV, etc.), are uniquely positioned to impact CRBSI rates through strict adherence to such preventive measures.

Purpose: The purpose of this quality improvement project was to reduce CRBSIs at a large academic medical center.

Methods: The Iowa Model for Evidence-Based Practice guided project implementation. 108 pre-intervention audits were performed (July 2024), followed by a targeted education period which included in-person presentations and electronic data dissemination to anesthesia personnel (October 2024). Then, 25 post-intervention audits were collected per week for a four week period (November 2024) to assess the effectiveness of the project intervention. Reminders were created (electronic pop-ups, visual aid posters) to help support project sustainability.

Findings: Average utilization of alcohol-based disinfecting caps on syringe tips improved by 44% and by 68% on needleless connector ports. Self-reported anesthesia provider knowledge increased from a Likert-scale average of 3.2 (average knowledge) to 4.18 (above average knowledge). Hospital CRBSI rates (per 1,000 catheter days) declined by 85% from October 2024 (1.3) to February 2025 (0.2).

Discussion: Targeted education and visual reminders improved knowledge and utilization of disinfecting caps among anesthesia providers. Results indicated a positive trend in practice change and a potential association with reduced CRBSI rates. Sustaining improvement may require ongoing reinforcement, better workflow integration, and leadership support. This project supports alcohol-based disinfecting caps as a valuable component of CRBSI prevention strategies.



Addressing Postpartum Hemorrhage in Iowa Hospital Through Simulation

Tara Kutansky, BSN, RN, SRNA-DNP Student

Background: Postpartum hemorrhage (PPH) is one of the most significant complications of childbirth and remains the leading cause of preventable maternal morbidity and mortality world-wide, with women in low-resource settings at higher risk. Simulation-based education, paired with established clinical guidelines, has been shown to significantly improve healthcare professionals' preparedness for managing infrequent but high-stakes emergencies such as PPH.

Purpose: The purpose of this Doctor of Nursing Practice (DNP) project is to strengthen healthcare workers' preparedness and management skills for PPH through in-situ, multi-disciplinary simulation training.

Methods: This quality improvement project involved three in-situ, multidisciplinary PPH simulation sessions conducted over six months in a community hospital in Iowa, with a total of 24 participants. Pre-simulation education included a review of PPH risk factors, clinical signs and symptoms, and the American College of Obstetricians and Gynecologists (ACOG) PPH guidelines. Each session concluded with a team debrief. Participants completed pre- and post-simulation self-assessments, and team performance was evaluated using ACOG's PPH Checklist and the Perinatal Emergency Team Response Assessment (PETRA) scale.

Findings: All surveyed participants reported increased confidence in their ability to identify and manage PPH. The three teams demonstrated strong adherence to ACOG guidelines, correctly completing at least 80% of ACOG's PPH Checklist. However, PETRA scores highlighted areas for improvement in teamwork, which were addressed during the debrief discussions.

Discussion: In-situ simulation offers a valuable, risk-free environment for reinforcing evidence-based practices and multidisciplinary team coordination. This project underscores the effectiveness of simulation training in improving clinical preparedness and can be adapted for use in any facility that provides obstetric care to promote patient safety and high quality outcomes.



Improving Anesthesia Provider Use of Lung Protective Ventilation

Joseph LaFeve, MS, CRNA, DNP Student

Background: Postoperative pulmonary complications (PPCs) are among the most frequent surgical complications, contributing to morbidity and mortality and increased use of health care resources. Robotic-assisted abdominal surgery has been associated with an increased risk of PPCs. Evidence suggests that lung protective ventilation (LPV) can prevent PPCs.

Purpose: This project aimed to enhance anesthesia providers' knowledge and adoption of LPV strategies during robotic-assisted abdominal surgery, optimize intraoperative lung mechanics, and decrease PPCs.

Methods: Using the Iowa Model of Evidence-based Practice, this project assessed anesthesia providers' knowledge and use of LPV before and after education sessions and the introduction of a clinical protocol. Intraoperative LPV protocol adherence, driving pressure, lung compliance, and PPCs were also measured.

Findings: Eleven providers completed the pre-implementation survey, and seven providers completed the post-implementation survey. Self-reported knowledge and use of LPV did not meaningfully change after project implementation. However, in a post-implementation group of 44 patients, provider adherence to LPV best practices of maintaining tidal volumes of 6-8 mL/kg ideal body weight (IBW), positive end-expiratory pressure (PEEP) of $0.3 \times$ body mass index (BMI), and a fraction of inspired oxygen (FiO_2) $\leq 40\%$ significantly improved. Lung mechanics, specifically driving pressure and dynamic lung compliance, significantly improved compared to the pre-implementation group. Postoperative oxygen desaturation events and supplemental oxygen administration significantly decreased.

Discussion: Consistent use of LPV strategies can increase the safety of anesthesia care. This project demonstrated that educational sessions and a structured protocol can improve anesthesia providers' use of LPV practices, optimize lung mechanics, and decrease PPCs after robotic-assisted abdominal surgery.



Reducing Surgical Site Infections in Colorectal Surgical Patients

Vanessa Latus Charles, RN, BSN SRNA-DNP Student

- **Background:** Surgical site infections (SSIs) are a significant challenge in colorectal surgery due to the involvement of the gastrointestinal tract and patient comorbidities. Despite advancements, SSI rates remain high and lead to poor outcomes and increased healthcare costs.
- **Purpose:** This project aimed to reduce SSIs in adult colorectal surgical patients by improving adherence to evidence-based SSI prevention bundles focused on antibiotic timing, glucose control, and normothermia maintenance.
- **Methods:** A quality improvement initiative utilizing the Plan-Do-Study-Act (PDSA) model was implemented from November to December 2024 in a Level 1B tertiary care hospital. Interventions included manual email reminders, updated preoperative orders, intraoperative care standardization, and structured communication strategies. Data collection involved retrospective and real-time chart reviews, and statistical analyses to assess compliance and outcomes.
- **Findings:** There were 67 colorectal cases that took place from November to December 2024. Initial compliance with timely antibiotic administration went up from 88% to 94% (n=63/67). After updates to the order set, redosing compliance improved from 67% to 91% (n=61/67). Similarly, normoglycemia compliance increased from 85% to 93% (n=62/67), and normothermia compliance rose from 89% to 97% (n=65/67) due to real-time education efforts. A reduction in SSIs was also noted, with zero reported infections in December 2024 compared to four infections in October 2024 among postoperative in-hospital patients.
- **Discussion:** The project demonstrated that structured interventions improve adherence to SSI bundles, leading to a significant decrease in infection rates. Barriers such as Operating Room (OR) temperature resistance and provider unfamiliarity were addressed through education and system changes. Future work should incorporate automated email reminders, address sustainability, and explore expansion to broader healthcare settings.



Process Improvement for Pediatric Mental Health Patients in the ED

Madison Loftsgard DNP, PNP-PC Student

Background: There is a barrier to receiving quality pediatric mental health treatment due to shortages in providers, treatment facilities and staff. The lack of access to care is leading to increased emergency department (ED) referrals for crisis stabilization. EDs frequently lack the necessary mental health resources, causing patients to wait for extended periods of time before receiving proper evaluation.

Purpose: The purpose of this DNP project was to improve the process of care for patients being treated with mental health conditions in the ED.

Methods: This project created an evidence-based standardized process of care for mental health patients the ED. The algorithm included the implementation of the HEADS-ED screening for all mental health patients and a 24-hour care conference for boarded patients in the ED. Included patients were between 12-18 years old and presented to the ED with a mental health concern. Epic chart reviews were conducted to monitor average length of ED stay, nursing documentation of the HEADS-ED screening and completion of 24-hour care conferences.

Findings: Over a five-month implementation period, 53 patients (n=53) met inclusion criteria to utilize the Mental Health Algorithm of Care. Of the 53 included patients, 18 (34%) were administered the HEADS-ED Screening. 16 patients met criteria for a daily care conference and 14 of those 16 patients (87.5%) had increased documented provider, social worker and nursing communication. The average length of ED stay decreased from an average of 13.617 to 12.102 hours (11% decrease) after project implementation.

Discussion: A decrease in average length of stay demonstrates positive clinical significance. These results show that the implementation of a standardized algorithm of care, that includes screenings and special attention to boarded patients, has the potential to decrease the overall length of ED visit.



Implementing Evidenced-Based Wound Care Guidelines for Care of Hospice Patients

Dana McMahon BSN, RN, AGNPPC-DNP Student

Background: Pressure injuries affect over 3 million people in America. Hospice patients with multiple risk factors have a higher risk of pressure injury development than others. If a pressure injury occurs, it can significantly impact quality of life. The primary goal for wound management is to minimize symptoms such as pain, odor, exudate, prevent infection, worsening of ulcers, and maintain skin integrity to maximize patient comfort and quality of life. Without baseline knowledge of wound care management, this goal can be challenging.

Purpose: The primary aim of this quality improvement project was to enhance knowledge and confidence in pressure injury wound care management and increase the implementation of wound care management guidelines.

Methods: The Knowledge to Action Cycle (KTA) framework was utilized for this project. The six participants completed a pre-education, post, and 3-month post-education survey using a 5-point Likert scale to assess knowledge and confidence of wound care management. Following the 30-minute PowerPoint education on wound care products and management, a wound care guideline tool was provided to use during the intervention period on any patient identified as having a pressure injury. After the 3-month intervention period, the frequency of use of the wound care guideline was measured.

Findings: Staff knowledge increased by an average of 28%, staff confidence increased an average of 32%, and implementation of wound care guidelines increased by 92.3%. Providing education on evidence-based wound care and implementing a wound care guideline tool showed effectiveness in increasing the knowledge and confidence of nursing staff when managing pressure injuries.

Discussion: When the skin fails and wounds develop, hospice nurses need to be able to manage patients' wound care confidently and knowledgeably. Knowing how to order the appropriate dressings to manage their wounds increases patient comfort, satisfaction, quality of life, prevents delays in care, and is cost-effective.

Keywords: pressure ulcer wound care, palliative wound care, end of life wound care, hospice wound care, terminal care.



Measuring Executive Functioning among Patients Seeking ADHD Treatment in a Psychiatric Clinic

Sarah Mitchell, BSN, RN, PMHNP-DNP Student

Background. Attention deficit-hyperactivity disorder (ADHD) is a lifespan disorder that is associated with poorer patient outcomes and quality of life. Functional capacity can be negatively influenced through poor executive functioning (EF), which includes difficulty with impulse control, strategic planning, goal-direction and motivation, and cognitive flexibility. EF may be a primary driver for patients to seek care but is underutilized in clinical assessment.

Purpose. This evidence-based practice project was completed to incorporate EF assessment and improve knowledge on EF in outpatient psychiatric practice through utilization of EF measurement with the Barkley Deficit in Executive Functioning short form (BDEFS-SF) among outpatients with ADHD and an educational presentation for healthcare staff.

Methods. The Iowa Model for Evidence-Based Practice was utilized for the project, which occurred at a private psychiatric and psychology practice. The BDEFS-SF was given to every adult patient with ADHD, and demographic information was collected. BDEFS-SF results were compared to sampled norms. Acceptability and feasibility measures were collected from participating providers each month to ensure the program's success. Additionally, a pre- and post-test was distributed to currently licensed healthcare professionals to evaluate their knowledge on EF.

Findings. From October 2024 to February 2025, 199 individuals completed the BDEFS-SF with no patient refusal. Their EF scores were substantially worse than a normative sample of their peers. The providers administering the surveys reported documentation ease (4/5) and positive influence to clinical decisions (3.88/5). Additionally, they reported a positive impact to their practice (3.62/5) with a 25% increase in psychotherapy referrals. Provider knowledge on EF improved by 14% after the educational presentation.

Discussion. The project aims had mixed results, but overall findings were positive. No patient refusal indicates acceptability to participants, and providers reported a positive change. Connecting patients to psychotherapy showed positive outcomes.



Improving Early Stroke Detection for Veterans in the Emergency Room: A Quality Improvement Project

Ann E Morgan, BSN, RN, AG-ACNP-DNP Student

Background: Annually, approximately 795,000 individuals in the United States experience a stroke. Veterans are at a heightened risk due to higher rates of traumatic brain injuries (TBI), increasing their stroke risk by 40%. Smaller Veterans Health Administration (VHA) facilities face challenges in providing timely stroke interventions due to inadequate access to diagnostic resources and limited nursing expertise. Education for nurses focusing on atypical stroke symptoms (altered mental status, headache, nausea, vomiting, dizziness and falls) in Emergency Department (ED) triage can improve patient outcomes.

Purpose: The purpose of this project was to enhance the recognition of stroke in patients presenting with atypical symptoms and improve the timeliness of stroke interventions for veterans in a Midwest Veterans Affairs (MWVA) ED.

Methods: Utilizing the Plan-Do-Study-Act (PDSA) Framework, this project implemented cranial nerve assessments for veterans presenting with atypical stroke symptoms. Educational interventions included pre and post cranial nerve knowledge exams, and in-service training for ED nurses. Data collection involved chart audits and surveys to measure the impact of education on documented cranial nerve assessments in atypical stroke.

Findings: There was a significant increase in post-education neurological exams (n=31) compared to pre-education neurological exams (n=20) on patients with atypical stroke symptoms. Chi-square testing indicated a significant relationship between education and the frequency of neurological exams ($\chi^2(1) = 7.40, p = .007$). No patient with atypical stroke symptoms was diagnosed with a stroke during the project timeframe.

Discussion: Educational interventions improved nurse knowledge and increased documented cranial nerve assessments in ED triage. Documentation menus within the triage note were limited, suggesting a need for expanding documentation tools in the electronic health record (EHR). Future initiatives could include enhancing triage documentation processes and expanding stroke education programs.



Improving Institutional Preparedness to Manage Postpartum Hemorrhage

Moline Mvundura BSN, RN, DNP student

Abstract

Background: Postpartum hemorrhage (PPH) is a significant cause of maternal morbidity and mortality. Timely, coordinated response from interdisciplinary teams is essential to improve outcomes. Simulation-based training provides a hands-on approach to enhance interdisciplinary teams' preparedness.

Purpose: This evidence-based project aimed to implement simulation-based training to improve interdisciplinary healthcare teams' proficiency in PPH management guided by an Obstetric (OB) hemorrhage checklist.

Methods: The project was conducted in OB department and Operating Room (OR) of a Level 1 maternal care municipal hospital. Target population was OB and OR interdisciplinary team members. Three simulations were executed, each incorporating an education session, pre-briefing, scenario execution using the "Mama Natalie" mannequin and ACOG checklist, and a debriefing phase. Assessment tools included pre- and post-intervention surveys, checklist completion rates, and PETRA scale scores. A two-tailed Wilcoxon signed rank test assessed statistical significance.

Findings: Participants (n=20) showed significant improvement in reported knowledge (mean score from 4.3 to 6.05) and skills (4.15 to 6.05), with $p < .001$ for both. Checklist adherence reached 100% in simulations one and three, and 80% in simulation two. PETRA scale scores demonstrated effective teamwork in simulations one (152) and three (145), with improvement in the second OR simulation (119 to 145) following reinforced education. Participants also reported increased likelihood of using the checklist in clinical practice (mean from 4.4 to 6.7).

Discussion: Simulation training and PPH education, especially when guided by cognitive aid, significantly improved both individual competencies and team coordination in managing PPH. Leadership, team familiarity, and repeated exposure contributed to enhanced performance. These findings suggest simulation is a valuable strategy for improving emergency obstetric care. Future exploration should assess retention of knowledge and determine optimal intervals for refresher training.

Keywords: postpartum hemorrhage, simulation training, interdisciplinary team, obstetric emergency, checklist, teamwork



Interdisciplinary Obstetric (OB) Hemorrhage Simulation

Jordan Officer BSN, RN, CRNA-DNP Student

- Abstract

- **Background:** Obstetric (OB) hemorrhage remains the leading cause of maternal morbidity and mortality in the U.S., particularly affecting rural populations where infrequent exposure can reduce preparedness. Timely, interdisciplinary response is crucial to prevent severe outcomes. Simulation-based education has shown promise in improving team performance and confidence during obstetric emergencies.
- **Purpose:** The purpose of the DNP project was to implement and evaluate an interdisciplinary OB hemorrhage simulation to improve teamwork, adherence to evidence-based checklists, and confidence in managing hemorrhagic events among obstetric care staff.
- **Methods:** This project was conducted at a regional medical center's birth center in rural Iowa. Each simulation was preceded by a pre-briefing and short educational session. Performance was evaluated using the PETRA scale, the ACOG OB Hemorrhage Checklist, and pre-/post-simulation self-assessments.
- **Findings:** Twenty-two staff members, including OB/GYN physicians, nurses, and CRNAs, participated in two simulation sessions. Both simulation teams exceeded the PETRA scale target score of 4.0 (Team 1: 4.21; Team 2: 4.24). One team met the checklist adherence goal of 90%, while the other achieved 82%. All participants showed improved post-simulation scores in knowledge, confidence, teamwork, and future intent to use cognitive aids.
- **Discussion:** The simulation improved interdisciplinary teamwork and preparedness for OB hemorrhage management. Although checklist adherence varied, both teams effectively managed the simulate emergencies. Participant feedback highlighted increased confidence and knowledge, supporting the value of high-fidelity simulation. Expanding simulations across multiple institutions and incorporating Stage 4 hemorrhage scenarios may strengthen future projects. Overall, this project support simulation as a low-risk, high-impact strategy to enhance readiness of obstetric emergencies.



Improving Statin Adherence with Nurse Led Telephone Follow Up

Elise Owens, BSN, RN, DNP Student

- Abstract

- Background and Purpose: Hyperlipidemia, a major modifiable risk factor for the development of cardiovascular disease, is estimated to be present in nearly one third of U.S. adults (Zheutlin, Harris & Stullberg, 2024). Despite the overwhelming evidence that statin medications are both safe and effective in reducing cardiovascular risk, only about half of U.S. adults who could benefit from statin therapy take one as prescribed (CDC, 2023). The purpose of this quality improvement project was to increase rates of statin adherence at a private family medicine clinic in the Midwest.
- Methods: The Institute for Healthcare Improvement's (IHI) Plan-Do-Study Act (PDSA) framework was used to guide the project design. A telephone script was developed to help nursing staff educate patients on hyperlipidemia, cardiovascular disease and the benefits of statins. The script was designed to be used to contact patients with their test results after their physical, when new statin therapy was prescribed. Patients were contacted at one and three months after the initiation of statin therapy to offer support and determine continued adherence.
- Findings: 66.7% of patients were agreeable to statin therapy when the telephone script was used to review test results, compared to 37% when standard protocol was used. 100% of patients who were able to be contacted for follow up reported they were still taking their statin as prescribed 3 months later.
- Discussion: There were several limitations to this project. The intervention was implemented with only one physician-nurse pair and the sample sizes were small. However, the findings still have clinical significance for this patient population. Focused education at the initiation of statin therapy is a meaningful strategy to increase rates of adherence to these medications, which is likely to contribute to decreased cardiovascular risk for this patient population.



The Iowa ARNP Preceptor Tax Credit

Kate Pace, BSN, PMHNP-DNP student

Background: Background: Iowa faces a persistent shortage of clinical preceptors for Advanced Registered Nurse Practitioner (ARNP) students, a challenge that limits program capacity and hinders the growth of the state's nurse practitioner workforce. This shortage is especially concerning amid rising healthcare demands in rural and underserved communities, where access to timely, high-quality care often depends on the availability of nurse practitioners. Without enough preceptors, ARNP students face delayed graduations or even lost educational opportunities, exacerbating provider shortages and placing additional strain on an already stretched healthcare system. Strengthening the preceptor pipeline is critical to meeting Iowa's current and future healthcare needs. **Purpose:** This project aimed to address preceptor shortages by advancing a legislative solution: a refundable state income tax credit for ARNPs who serve as preceptors to graduate nursing students. The goal was to incentivize preceptorship, expand clinical placement opportunities, and ultimately strengthen Iowa's healthcare workforce. **Methods:** Using the Evidence-Informed Health Policymaking (EIHP) model as a framework, the project employed multiple implementation strategies including legislative drafting, stakeholder engagement, coalition-building, and advocacy. Outreach included 65+ emails to legislators and stakeholders, 18 meetings with lawmakers, and presentations at both the state and national level. The American Nurses Association's (ANA) VoterVoice platform was piloted in Iowa to support advocacy on this bill. **Findings:** The 2024 bill (HF 2017) was introduced but stalled in committee. In 2025, a revised version (HF 327/SF 291) gained bipartisan sponsorship and successfully advanced through Senate committees, reflecting growing momentum and broader stakeholder buy-in. Nursing organizations, academic leaders, health systems leaders, and grassroots advocates have shown increasing support for the bill, reinforcing its relevance and urgency. **Discussion:** This project demonstrates that sustained, evidence-informed advocacy can drive meaningful policy change. A refundable tax credit offers a financially viable and politically supported mechanism to address preceptor shortages and promote nursing workforce expansion. Continued legislative engagement and refinement of cost estimates remain essential to ensuring bill passage and implementation.



A Hybrid Implementation and Improvement Framework to Drive Innovation in Critical Access Hospitals

Abby Rail, MSN, RN, CNL, CPN, DNP Student

Background: Sepsis has a devastating impact on the U.S. population (Rhee et al., 2017). Timeliness in sepsis recognition and intervention is crucial as mortality increases by eight percent for each hour in treatment delay (Kumar et al., 2006). The Severe Sepsis and Septic Shock Early Management Bundle (SEP-1) is a standard to improve long-term mortality (Townsend et al., 2022). In critical access hospitals (CAH), several barriers to sepsis quality improvement exist, including staffing shortages and leaders fulfilling multiple roles (Gale, 2023; Gonzales, 2018; Hoppe & Clukey, 2021; Lemont et al., 2023; Nelson-Brantley et al., 2018; Seright & Winters, 2015).

Purpose: The primary purpose of this project is to understand and target local barriers and facilitators to implementation and sustaining sepsis best practices in CAH. The secondary aims are to improve SEP-1 compliance and sepsis mortality.

Methods: Following a focus group, a hybrid quality improvement and implementation science design was used. Provider champions were identified and implementation of a nurse-driven sepsis bundle was initiated.

Findings: Barriers were identified upon discussion of nurse-driven protocol related to physician hesitancy with protocol use, nursing scope, and antibiotic stewardship. Nursing leaders adapted and created individualized, sustainable sepsis interventions at each site. As a result, sepsis bundle compliance improved and sepsis mortality stayed at 0% or decreased from baseline data.

Discussion: Despite initial barriers, nursing leaders adapted styles and strategies to each context to promote clinically significant results. Nursing leaders must align implementation science with quality improvement science and integrate leadership strategies into the project. Additionally, nurse-driven protocols are an opportunity to reduce variability in under-resourced CAH, provided there is adequate structural support and appropriate physician buy-in. A Hybrid Implementation and Improvement Framework to Drive Innovation in Critical Access Hospitals has been recommended.



Baseline Matters: Implementation of a Brief Cognitive Screening Tool Preceding CAR T-Cell Therapy

Amanda Robertson, RN, BSN, OCN, FNP-DNP student

Background: Mild cognitive impairment (MCI) in older adults with cancer is often subtle and under-assessed in routine evaluations. Individuals may only present with subjective memory impairment while retaining the ability to perform activities of daily living. Compounded further, older adults with diffuse large B-cell lymphoma (DLBCL) presenting for chimeric antigen receptor (CAR) T-cell therapy may have comorbidities and a history of numerous rounds of systemic chemotherapy, leading to cancer-related cognitive decline (CRCDD). This creates challenges when MCI is detected following admission to the hospital for CAR T-cell therapy, increasing the risk of adverse side effects and decreased quality of life in these older adults.

Purpose: To implement a standardized cognitive screening tool to identify older adults with DLBCL at risk for MCI before CAR T-cell therapy in an outpatient cancer clinic at a large academic medical center.

Methods: This evidence-based practice project employed the Iowa Revised Model. It introduced the Mini-Cog screening tool to a setting that lacked a baseline cognitive screening tool. The project focused on three outcomes: evaluating the cognitive screening tool completion rate, frequency of supportive referrals placed for patients at risk of MCI, and increasing provider knowledge and confidence in using the screening tool.

Findings: Post-implementation, 80% of patients seen in the outpatient cancer clinic preceding CAR T-cell therapy were screened using the Mini-Cog tool. Due to limited time from screening to admission, supportive inpatient consults were evaluated, with 100% (n=10) of patients receiving at least one consult during their hospitalization. Provider knowledge and confidence in using the Mini-Cog tool increased.

Discussion: This project underscored the importance of assessing baseline cognitive function in older adults with DLBCL preceding admission for CAR T-cell therapy. Future projects should focus on screening earlier in patients' treatment to promote increased optimization of these patients.



Medication Management Among Persons Who Have Experienced Chronic Homelessness

Samantha J. Rosonke, BSN, RN, DNP-FNP Student

Background: Medication non-adherence is a well-documented issue among persons experiencing homelessness (Hird et al., 2024). The gold standard intervention for addressing homelessness are Permanent Supportive Housing (PSH) initiatives. While these initiatives improve long-term housing stability, similar barriers to medication adherence are observed in this population, indicating a need for further intervention (Aubry et al., 2020). Medication management programs (MMPs) are an evidence-based intervention to improve medication adherence which reduces disease complications, decreases mortality, and improves quality of life (Cadel et al., 2023; Ganguli et al., 2016).

Purpose: The purpose of this project was to implement a standardized medication management program across two PSH initiatives to improve the quality of services offered onsite and improve medication adherence.

Methods: A three-tiered MMP was developed, along with an organizational policy outlining the roles and responsibilities of staff members offering services onsite and electronic documentation logs to track participant's medication adherence. Additional project interventions included tenant signed service agreements, a partnership with a local pharmacy, and educational materials for staff members. Over the 17-week implementation period, 14 PSH tenants and 25 PSH staff members participated in the program. The Model for Improvement (Institute for Healthcare Improvement, n.d.) was utilized to ensure timely assessment of the need for change and evaluate change effectiveness throughout the implementation period.

Findings: Documentation related to medication adherence increased from 38% to 86% at site A and 0% to 87% at site B. Staff satisfaction with the education they were provided regarding their role in offering medication management services increased from 21% to 89%. Additionally, staff role clarity improved from 64% to 89%. The number of tenants who reported MMP services met their needs increased from 55% to 100%. Onsite providers also reported a positive impact of the project on their clinical decision making.

Discussion: This project extrapolated evidence of the effectiveness of MMPs to a PSH setting. Furthermore, it demonstrates the positive impact of nurses in reducing barriers to health in a community setting.



Post Incident Debriefing over Management of Aggressive Behavior Skills to Reduce Injury from Patient Assault

Kyla Sanchez, PMHNP-DNP student

Abstract

Background-Violence against healthcare workers has surged since the COVID-19 pandemic, with nurses at the highest risk—five times more likely to be injured than workers in other industries. Most incidents are caused by patients, escalating during crises. Consequences include mental health issues, reduced job satisfaction, and even death. Violence also burdens healthcare systems with turnover, absences, and increased costs. Management of Aggressive Behavior (MOAB) training teaches staff to de-escalate violence using simulation and self-defense. Post-incident debriefing enhances reflection and knowledge retention.

Purpose-This project aimed to evaluate whether post-incident debriefing focused on MOAB skills reduced staff injuries from patient assaults. The primary objective was a reduction in physical assaults on nursing staff following debriefing. Secondary objectives included improved staff attitudes and knowledge regarding de-escalating aggressive patient behaviors.

Methods-This evidence-based project used a pre/post intervention design on an adult inpatient psychiatric unit. Nursing staff participated in debriefings following violent patient events, reflecting on MOAB de-escalation techniques. Staff knowledge and attitudes were measured using pre- and post-intervention surveys. Assault rates from October to December 2023 were compared to the same period in 2024.

Findings-Post-incident debriefing with a focus on MOAB de-escalation skills led to a 30.77% reduction in staff assaults, a 15.15% increase in positive attitudes, and a 31.47% increase in knowledge. These results demonstrate the effectiveness of debriefing in reinforcing MOAB skills and improving staff preparedness.

Discussion-The project showed that post-incident debriefing focusing on MOAB skills reduced workplace violence, improved staff knowledge, and enhanced attitudes toward de-escalation. These positive outcomes suggest the intervention could be expanded to other units to improve staff safety and patient care. Future work should aim to increase participation, standardize protocols, and explore long-term effects.



Combating Vaccine Hesitancy: Tailored Approaches for Improving Childhood Immunization

Emily Schlueter, BSN, RN, FNP-DNP Student

Background: Childhood immunizations are one of the most effective public health interventions, yet vaccine hesitancy remains a significant barrier for vaccine compliance. There is a concerning decline in childhood vaccine coverage at the national and state-levels, with increasing rates of vaccine exemptions. In a Midwest clinic, approximately 70% of children were partially vaccinated or not vaccinated, placing both the individual and the community at risk for vaccine preventable diseases.

Purpose: This quality improvement project aimed to combat childhood vaccine hesitancy by understanding the attitudes, beliefs, and barriers influencing vaccine hesitancy among parents and guardians of patients aged 17 years or younger.

Methods: Utilizing the Vaccine Acceptance Instrument, this project surveyed parents of children aged 17 years or younger to identify specific concerns across five dimensions of vaccine hesitancy. Educational materials and motivational interviewing were tailored to specific identified concerns.

Findings: A total of 100 individual surveys were completed; 50 pre- and 50 post-intervention. Despite 94% engagement with educational materials and 100% engagement with motivational interviewing, there was no statistically significant difference in overall vaccine acceptance scores or in vaccination rates. However, slight increases in partial vaccination and full vaccination and slight reductions in not vaccinated individuals were observed.

Discussion: Although the intervention did not result in statistically significant changes in vaccine acceptance scores or vaccination rates, the high feasibility and participant engagement suggests that targeted educational materials and motivational interviewing were both well-received and well-implemented. Building trust and understanding between provider and families fosters better vaccine knowledge and compliance. Strong rapport and collaboration serve as important first steps toward long-term vaccine attitude and behavior change. Further work with larger, more diverse samples and refined implementation strategies is warranted. This project highlights the potential impact of proactive, personalized interventions in addressing vaccine hesitancy and promoting public health.



Reducing Overuse Injuries in High School Athletes

Mikayla Siddell, MSN, BA, RN, PNP-PC DNP Student

Background: Youth sports result in 1.6 million injuries annually, with 5.3 overuse injuries per 10,000 athletes. Factors such as sports specialization, insufficient coaching education, and rigorous training schedules contribute to the rise in overuse injuries. Coaches must undergo injury prevention training only once during initial coaching authorization. This project was designed to meet the need for annual training on sports injury prevention.

Purpose: This project aimed to educate high school sports coaches to enhance their confidence in managing, recognizing, and preventing lower limb overuse injuries.

Methods: Utilizing the Quality Implementation Framework, an educational video was created highlighting overuse injury signs and symptoms, appropriate responses to injury, and prevention tips. Data was collected using in-person practice data sheets and surveys. A 6-item Likert scale survey (1 = strongly disagree and 5= strongly agree) was developed to assess knowledge and confidence. Surveys were given before the education training video and after their respective sports seasons.

Findings: Out of 59 participating coaches, 61 percent (n=36) completed the training to date based on the start date of their respective sports season. Survey results indicated that participants believe injury prevention training is important (mean=4.5, 4.2), increased their confidence (mean=3.8, 4.4), and understanding of how to treat overuse injuries (mean=3.6, 4.2). As a result of the online training, 41% of coaches (mean=3, n=5 out of 12) changed their approach to warmups. Practice data showed average warm-up times increased in football and volleyball, and improved distribution of exercises (core, aerobic, balance, agility, and strength) during the warm-up across all sports (volleyball, football, and cross country).

Discussion: Coaches reported higher confidence in managing, recognizing, and preventing overuse injuries. There were improved approaches to a full-body warmup in their practices or competitions following participation in the training.



Reinforcing Infant Safe Sleep Practices in the Hospital Setting

Kaily Skoog, BSN, RN, PNP-PC/AC-DNP Student



Background: One of the leading causes of infant deaths is sleep-related, with approximately 3,500 infants dying suddenly or unexpectedly while sleeping every year (American Academy of Pediatrics, 2023; Behnam-Terneus & Clemente, 2019). Bed-sharing has drastically increased, and can lead to sleep-related infant deaths (Moon et al., 2022). Room-sharing has been shown to decrease this risk by 50% (American Academy of Pediatrics, 2023). Healthcare workers can support and advise parents of safe sleep recommendations to promote infant safety (Moon et al., 2022). Consistent modeling of safe sleep practices encourages parental adoption.

Purpose: This project aimed to increase the safety and security of infant safe sleep based on the AAP recommendations through education, guidance, support, and resources. The project's objectives were to increase the compliance for representing the safe sleep environment, increase the knowledge of safe sleep guidelines, compliance, resources and confidence, and provide training of the AAP safe sleep recommendations, unit protocols, and admission guidelines to healthcare staff.

Methods: The John's Hopkins Evidence-Based Practice model was utilized as the guiding framework for this project. Evidence-based education, safeguards, tools, and resources to ensure safe sleep were developed. A pre- and post-intervention needs assessment was conducted and analyzed. An educational session enhanced healthcare staff knowledge and confidence in safe sleep. Data on parental knowledge, confidence, support, and compliance to safe sleep was collected and analyzed. A pre- and post-education questionnaire was provided to healthcare staff to evaluate knowledge.

Findings: Safe sleep representation identified improvement following education (36% to 65.2%), however further improvements must be made. Parental discharge surveys reflected improved knowledge, confidence, resources, and compliance in safe sleep throughout hospitalization. Safe sleep education was successful in checking-off 97% of healthcare staff. There was low responsiveness in the pre- and post-education questionnaire, however a 12% increase in knowledge was shown.

Discussion: The findings identified increased staff knowledge of safe sleep guidelines, improved parental satisfaction with safe sleep protocols, and improved infant safety and security with the safe sleep guidelines in place.

Improving Pediatric Patient Experiences Through What Matters to You Movement

Maddie Skoog, BSN, RN, PNP-PC/AC- DNP Student

Background: The quality of care a patient receives is important because patient-centered care models value the patient's preferences. These models empower patients to be active participants in their care to improve patient satisfaction and personalize the patient experience. High quality care is shown to positively impact health outcomes and reduce healthcare costs. The WMTY movement is a global initiative used throughout the world to help healthcare staff utilize motivational interviewing techniques to build better relationships with patients and personalize their care.

Purpose: Provide education and guidance related to adopting the WMTY movement for hospitalized pediatric patients to improve patient satisfaction and further personalize their care.

Methods: After collecting Press Ganey data to assess patient satisfaction for the organization, it was determined improvement could be made. Plan-do-study-act (PDSA) cycles were utilized to evaluate this project. WMTY education was created and shared among staff. WMTY champions conducted biweekly audits over a 16-week period. The audit data was then analyzed for compliance of staff implementing the WMTY movement. Qualtrics data was collected and studied to determine if improvements in patient satisfaction occurred. Follow-up occurred among management, mentors, and staff members.

Findings: 97% of staff received education related to implementing the WMTY movement and felt comfortable helping patients/families complete this tool. Only 50% of PICU staff and 59% of general pediatric unit staff were compliant with the implementation of this movement. Based on Qualtrics data, 50% of patients and their families felt they could trust the organization with their care.

Discussion: This project created a pathway for continuous future project improvements. With plans to increase the frequency of audits and implement discharge thank you notes to families, there is potential for future interventions to yield more data.

Keywords: What matters to you (WMTY), patient experience, pediatrics, patient satisfaction, pediatric intensive care unit (PICU)



Virtual Reality for Needle Procedures

Jarod Smith, BSN, RN, CPHON, FNP-DNP Student

Abstract

Background. Needle procedures, including port needle insertions, are the most painful experiences for hospitalized children. These common procedures can cause phobias that persist in adulthood. These phobias may lead to avoidance of blood draws, vaccinations, and blood donations. Virtual reality (VR) has emerged as an evidence-based distraction tool shown to reduce pain and anxiety during needle procedures. **Purpose.** The purpose of this evidence-based practice project is to reduce the pain and fear associated with needle procedures in pediatric hematology/oncology patients through virtual reality distraction. **Methods.** The Iowa Model guided this evidence-based practice project. The setting of this project was a single pediatric hematology/oncology unit within a Midwestern academic children's hospital. Patients aged 6-21 years used a VR headset shortly before port access, during their procedure, and ending immediately after. Both patients and registered nurses completed post-procedure surveys. **Results.** Fourteen patients aged 6-21 years participated in the implementation of this project while undergoing port needle insertion. On average, participants' fear and pain were reduced at least "a little" with only three participants reporting VR did not help their pain and two reporting VR did not help their fear. All patients reported enjoying using the VR device. All implementing staff reported that the VR device was easy to use and did not disrupt their workflow, and 87.5% (n=14) perceived a benefit to their patient. No adverse effects like nausea or headache were reported. **Discussion.** Although this project has a small sample size, it adds clinically significant findings to a population that is less commonly studied. This project shows that VR headsets, which are inexpensive and readily available, can be implemented as an option for distraction for children undergoing port access to provide enjoyment while decreasing pain and fear experienced without disrupting previously established workflows.

Keywords: virtual reality, needle procedures, port needle insertion, pain, fear



From Surviving to Thriving: Implementing the Society of Critical Care Society's ICU Liberation Bundle

Katie Stallman, BA, BSN, RN, CCRN

Background

The intensive care unit (ICU) is an independent risk factor for long-term, life-altering deficits known as post-intensive care syndrome (PICS). PICS includes cognitive impairment, physical dysfunction, and psychological distress, all of which diminish survivors' quality of life and increase healthcare costs. Recognizing the need to mitigate these outcomes, the Society of Critical Care Medicine (SCCM) developed the ICU Liberation Bundle (ABCDEF), an evidence-based clinical practice guideline targeting modifiable risk factors such as pain, agitation, delirium, immobility, and sleep disruption.

Purpose

This project aims to determine whether standardized implementation of the SCCM ICU liberation bundle reduces ICU length of stay, time on mechanical ventilation, and instances of delirium.

Methods

This evidence-based practice project implemented five components of the ICU Liberation Bundle at a 20-bed, mixed medical-surgical ICU using the Plan-Do-Study-Act (PDSA) model. Interventions included staff education, EMR template updates, interdepartmental collaboration, and developing a new nurse progress note template. Three outcome measures—ICU length of stay, mechanical ventilation duration, and CAM-ICU positive assessments—were compared pre- and post-implementation.

Findings

While the project did not replicate national data trends in reduced ICU length of stay or mechanical ventilation time, it revealed statistically significant increases in CAM-ICU assessment frequency and documentation completeness.

Discussion

Despite increased delirium screenings, findings were not statistically significant. Data skewness and kurtosis indicated heavy outliers and non-normal distribution, complicating analysis. Sustainability measures included: EMR changes, continued nurse education, and the development of a Critical Care Council to champion bundle elements. Limitations included a small sample size, implementation delays, and exclusion of family engagement. This project successfully laid a foundation for long-term, nurse-led integration of SCCM's ICU Liberation Bundle, reinforcing the value of structured, interdisciplinary care in improving post-ICU outcomes.

Keywords: ICU liberation bundle, Society of Critical Care ICU bundle, ABCDEF bundle, post-intensive care syndrome, delirium, critical care outcomes, evidence-based practice, nurse-led critical care



Implementation of a Screening & Referral Process for Opioid Tolerant Patients

Kiana Stender, BSN-RN, DNP Student

Background: Patients who are opioid tolerant present a significant clinical challenge to anesthesia providers, experiencing increased risk for opioid withdrawal, inadequate postoperative pain management, and adverse effects of opioids. Despite these concerns, there is a lack in formal processes of preoperative screening and management for opioid tolerant patients.

Purpose: The initial project aim was to create a preoperative screening and referral process for implementation by the surgical service. Secondary aims included the creation of a reference tool for anesthesia providers.

Methods: A screening and referral process was created for the surgical service at the preoperative clinic appointment. Barriers encountered in the clinic-based implementation resulted in a shifted focus to anesthesia providers. After a pre-survey to assess preoperative screening practices and resource awareness, a reference tool was subsequently disseminated. A post-survey measured changes in screening practices, awareness of resource availability, and helpfulness of the resource in opioid tolerant patient management. Data was analyzed using descriptive statistics and Chi-square tests.

Findings: The pre-survey of anesthesia providers (n=114) revealed limited awareness of institutional resources, with 64% of responses reporting none known. The post-survey (n=61) showed improvement after implementation, with 45.7% of responses identifying the created tool as an available resource, and 90% of providers stating it was helpful in opioid tolerant patient management. While only two survey items demonstrated statistically significant ($p < 0.001$) improvement, all items showed clinically meaningful improvements.

Discussion: The creation of a reference tool improved provider preoperative screening practices and was identified as a valuable resource. Future directions include continued attempts to extend screening to surgical clinics and promote interdisciplinary collaboration to ensure comprehensive pain management planning.



Improving Anesthesia Provider Knowledge of Non-Obstetric Surgery for the Pregnant Patient

Claire Swanson, DNP, RN, BSN

- **Abstract**
- **Background:** Pregnant patients undergoing non-obstetric surgery present unique anesthetic challenges due to physiological changes and fetal considerations. Anesthesia providers often lack experience with this population, risking delays in care and adverse outcomes.
- **Purpose:** This DNP project aimed to improve anesthesia provider knowledge, confidence, and competence by implementing an evidence-based education module and guideline.
- **Methods:** A total of 47 SRNAs and CRNAs participated in a pre- and post-survey and quiz evaluating self-reported and objective knowledge. The Iowa Implementation for Sustainability Framework guided implementation.
- **Findings:** Statistically significant improvements were found in several areas of self-reported confidence and quiz performance. Qualitative feedback supported improved understanding and reduced anxiety. A guideline was published for ongoing use.
- **Discussion:** This project successfully enhanced provider readiness to care for pregnant patients undergoing non-obstetric surgery, demonstrating the effectiveness of targeted education. The project provided a replicable model for improving care in these rare, yet high-risk clinical scenarios.



Magnetic Resonance Imaging Protocol for Non-Conditional Cardiac Devices

Krista Sweers, MSN, ARNP, FNP-C, DNP Student

Background: It is projected that 50-75% of patients with cardiac implantable electronic devices (CIEDs) will require a magnetic resonance imaging (MRI) in their lifetime (Cunqueiro et al., 2019). Companies started developing MRI-conditional CIEDs safe for MRI scanning. Recently, research has shown that MRI-non-conditional CIEDs are safe for MRI if safety protocols are in place (Shah et al., 2018).

Purpose: The purpose of this project is to increase knowledge and confidence of staff and improve access of care by implementing guideline-directed safety protocols for patients with CIEDs needing an MRI.

Methods: The project took place at a large hospital in the Midwest. A committee was formed and developed the protocol. Staff from radiology and cardiology and patients with CIEDs were included in the intervention. A PowerPoint presentation was presented to the cardiology and radiology staff. They were given a 10-point knowledge test and confidence survey prior to the presentation and immediately following the presentation. Data was collected through paper copies of the knowledge test and confidence survey and through chart audits of patients with CIEDs needing an MRI during the intervention period.

Findings: Eleven staff from the radiology and cardiology departments were included in the intervention. There was an increase in staff knowledge by 44.2% ($p = 0.003$) and an increase in staff-reported confidence by 80.2% ($p = 0.002$). There were 60 MRI requests during the intervention period. Accessibility to MRI increased by 57.7% in patients with MRI-non-conditional CIEDs.

Discussion: The improvement in knowledge and confidence shows that educational interventions increase competency among healthcare providers. There was a statistically significant increase in test scores ($p = 0.003$) and confidence ($p = 0.002$). The intervention is clinically significant because of the impact on patient care. More patients with non-conditional CIEDs will have access to testing that they did not have access to prior to the new policy.



The Impact of Mindfulness Strategies on Advanced Practice Provider Burnout in the Urgent Care Setting

Megan Tadlock, BSN, RN, DNP-FNP Student

Abstract

Background: Advanced practice providers (APPs) in urgent care face high rates of burnout due to demanding workloads, emotional fatigue, and provider shortages. Burnout negatively impacts job satisfaction, productivity, and patient care quality. Mindfulness-based interventions have shown promise in reducing stress and improving well-being among healthcare professionals.

Purpose: This project evaluated the impact of the Healthy Minds Program, a mobile-based mindfulness intervention, on burnout and mindfulness awareness among APPs in an urgent care setting. Goals included a 10% reduction in burnout scores, improved mindfulness knowledge in 70% of participants, and regular mindfulness practice in 50% of participants.

Methods: A 14-week evidence-based practice project was conducted at an academic health system's urgent care clinics. APPs voluntarily participated in the intervention, which included use of the Healthy Minds mobile app, guided meditation videos, and newsletters. Burnout was assessed using the Copenhagen Burnout Inventory (CBI), and mindfulness was measured with the Freiburg Mindfulness Inventory (FMI). Participants also provided self-reports on mindfulness definitions, usage and perceived benefits in post-intervention surveys. Data were analyzed using descriptive statistics and paired t-tests.

Findings: Seven participants completed both pre- and post-intervention surveys. While results did not reach statistical significance, all CBI subscale scores decreased, indicating an 11.5% reduction in total burnout. FMI scores slightly increased, with 71.4% of participants demonstrating improved mindfulness knowledge. The majority (71.4%) practiced mindfulness at least twice per week, and all reported satisfaction with the intervention.

Discussion: This project supports the feasibility and acceptability of mindfulness interventions for reducing APP burnout in urgent care. Although limited by small sample size, findings align with existing evidence that mindfulness can enhance provider well-being. Future initiatives should explore structured, scalable mindfulness strategies with larger cohorts to strengthen outcomes and support long-term sustainability.

Keywords: mindfulness, burnout, advanced practice providers, nurse practitioners, physician assistants, urgent care, wellness, evidence-based practice, Healthy Minds Program, Copenhagen Burnout Inventory, Freiburg Mindfulness Inventory, mobile health intervention



Reducing Same Day Cancellations of Pharmacologic Stress Tests: A Quality Improvement Project

Andrea Timmerman, MSN, ARNP, AGACNP-BC, FNP-BC, MSN-DNP student

Background: Heart disease is the leading cause of death in the United States, claiming a life every 33 seconds (Center for Disease Control and Prevention, 2024). This statistic is a reminder of the urgent need for effective cardiac care. Pharmacologic stress testing is a crucial diagnostic tool that facilitates the early detection of heart disease, enabling timely intervention and treatment to prevent further heart damage and enhance outcomes (Lak et al., 2025). However, same day cancellations disrupt patient care, waste resources, and delay treatment of cardiovascular conditions.

Purpose: To implement a phone call reminder system that provides procedure preparation instructions one business day before stress testing, aimed at reducing the rate of same day cancellations, minimizing revenue loss from cancellations, and increasing staff satisfaction.

Methods: This quality improvement project took place in a Midwest hospital cardiac stress lab and involved 650 adult participants (374 in 2023 and 276 in 2024) and nine nuclear medicine technicians. The Iowa Implementation Framework for Sustainability guided the implementation process through stages of awareness, knowledge building, action promotion, and integration (Cullen et al., 2018). Staff engagement was fostered via surveys and training sessions to ensure proper execution.

Findings: The intervention resulted in an 8.8% difference in cancellation rates, dropping from 13.1% in 2023 (pre-intervention) to 4.3% in 2024 (post-intervention). Revenue loss due to cancellations decreased by 75.5%, with lost revenue decreasing from \$378,476 in 2023 (pre-intervention) to \$92,688 in 2024 (post-intervention). Staff satisfaction survey scores increased by 6.8%, rising from 18.25 in 2023 (pre-intervention) to 19.5 in 2024 (post-intervention).

Discussion: All three project goals were successfully met: reducing cancellation rates, minimizing revenue loss, and enhancing staff satisfaction. These outcomes improved patient access to care, supported staff workflow, and strengthened the institution's financial stability, underscoring the importance of integrating a patient reminder system in healthcare settings.



Educating anesthesia providers to help reduce anxiety in Individuals with developmental disabilities (IDD) undergoing dental surgery.

Michael Tongi, BSN, RN, SRNA-DNP student

Background- Individuals with intellectual and developmental disabilities (IDD) often face heightened anxiety surrounding dental surgery, creating significant challenges for anesthesia providers and healthcare teams.

Purpose: This Doctor of Nursing Practice (DNP) project aimed to alleviate preoperative anxiety among patients with intellectual and developmental disabilities (IDD) by educating anesthesia providers on evidence-based strategies specifically tailored for this unique patient population. Conducted at an academic ambulatory surgery center in the Midwest, the project implemented both pharmacological and non-pharmacological interventions, including preoperative environmental modifications, personalized care strategies, and enhanced electronic health record (EHR) documentation.

Methods- Educational materials were distributed to selected anesthesia providers, and post-intervention surveys evaluated their comfort and confidence in managing patients with IDD.

Findings-Results showed that 100% of participating providers found the education beneficial, leading to improved patient management and reduced operating room delays.

Discussion-Despite the small sample size, the findings underscore the importance of targeted education and interdisciplinary coordination in enhancing surgical outcomes and experiences for individuals with IDD. Future studies with larger populations are recommended to further validate and expand upon these results.



Addressing Matriculation Rates for Students Admitted to an RN-BSN Program

Nicole Weathers MSN, RN, NPD-BC, HS-DNP Student

Background: Significant changes in the nursing workforce have affected the number of nurses available to fill vacant positions and the depth of knowledge and experience they bring to their roles. Experienced registered nurses (RNs) are leaving the bedside while the demand for complex care is increasing (NCSBN, 2023; Smiley et al., 2023). Hospitals employing a higher percentage of BSN-prepared nurses see significant improvements in inpatient mortality rates (Aiken et al., 2011) and overall patient outcomes (Blegen et al., 2013), demonstrating BSN-prepared nurses are best positioned to meet current healthcare demands (AACN, 2023b).

Purpose: This project aimed to address low matriculation rates for students admitted to an RN-BSN program by implementing a proactive, comprehensive pre-orientation program.

Methods: The pre-orientation program was implemented using a program development and evaluation design. The Institute for Healthcare Improvement's plan-do-study-act (PDSA) framework allowed project leads to plan, implement, and evaluate the program, and a pre-post survey was used to assess the interventions' effectiveness in impacting the students' sense of belonging, engagement, and self-efficacy. The program included welcome emails, faculty phone calls, virtual workshops, and face-to-face orientation sessions.

Findings: Significant improvements were seen in students' sense of belonging to both the university and the RN-BSN program. However, the goal of increasing matriculation rates by 5% was not met. Low participation in program interventions was noted, likely due to students managing competing priorities.

Discussion: While the pre-orientation program enhanced the sense of belonging, it did not immediately impact matriculation rates. Future efforts should focus on supporting students in managing competing priorities and exploring additional strategies to improve participation and retention. Strategies include coordinating with 3+1 ADN programs, engaging potential students earlier to reduce admission cancellations, expanding synchronous and asynchronous options to enhance participation, improving the cancellation capture system for better tracking, and reducing the application-to-enrollment timeline.



Burnout and Stress: A Mindful Approach to Alleviate Both

Thomas A. Webering, BSN, RN, DNP-FNP student

Background: Increased demands for complex patient care, reduced nurse-to-patient staffing ratios, and high burnout are projected to drive 25% of nurses out of healthcare. Nurses face heightened risks of burnout from continuous exposure to psychological and physiological pressures.

Purpose: This project aimed to improve the rate of burnout and stress by implementing a mindfulness meditation program for nurses at a rural Midwestern critical access hospital.

Methods: The primary tool was the *Insight Timer* app. The emergency department, medical/surgical, and labor & delivery units participated. Nurses were required to complete three weekly sessions over eight weeks. Anonymous surveys were conducted at four intervals using the Copenhagen Burnout Inventory (CBI), the Perceived Stress Scale (PSS), and education and participation surveys. Data analysis utilized Intellectus Statistics Software.

Findings: The CBI results indicate statistical significance for preintervention versus post intervention with $\alpha = 0.05$, $t(23) = 3.90$, $p < 0.001$, and for preintervention versus three-month follow-up with $\alpha = 0.05$, $t(26) = 2.99$, $p = 0.006$. The PSS results indicate statistical significance for preintervention versus post intervention with $\alpha = 0.05$, $t(24) = 3.23$, $p = 0.004$, and for preintervention versus three-month follow-up with $\alpha = 0.05$, $t(25) = 2.79$, $p = 0.010$. Participants' knowledge regarding burnout, stress, and mindfulness improved, reaching statistical significance pre/post education session, with $\alpha = 0.05$, $t(26) = 3.23$, $p = 0.004$. Five participants completed $\geq 90\%$ of the required sessions.

Discussion: Mindfulness meditation significantly impacts nurses' burnout and stress, enhancing their well-being and capacity to care for themselves and others.



Pharmacogenomic Testing: Transforming Antidepressant Prescribing in Primary Care

Jenna Westendorf, BSN, RN, FNP & PMHNP-DNP Student

Abstract

- **Background:** Pharmacogenomic (PGx) testing is an emerging clinical tool that supports personalized medication management by identifying genetic variations that influence individual drug metabolisms. In primary care settings, this approach may improve the efficacy of antidepressant prescribing and reduce adverse effects, particularly in patients with treatment-resistant depression.
- **Purpose:** The purpose of this project was to implement pharmacogenomic testing in a rural primary care clinic and evaluate its impact on and provider confidence, knowledge, and attitudes to help improve antidepressant prescribing for adults with major depressive disorder.
- **Methods:** This evidence-based practice project followed the Iowa Model Framework for implementation. It was conducted in a rural primary care clinic in Iowa with a sample of 10 primary care providers. The intervention included an educational session on pharmacogenomic testing and clinical integration. A 5-point Likert scale survey was used to assess provider knowledge, confidence, and attitude scores pre- and post-intervention.
- **Findings:** While 520 patients were eligible for testing, only 24 tests were ordered, resulting in a 4.6% uptake rate. Providers demonstrated increased confidence (+1.5 points), knowledge (+1.6 points), and attitudes (+0.5 points) after the educational intervention. Post-education confidence and knowledge increased slightly further, while attitude scores remained stable. Among patients who underwent testing, 96% received appropriate follow-up, and 76% had at least one medication change informed by PGx test results – 40% were switched to a new medication and 36% had a dose adjustment.
- **Discussion:** The successful implementation of PGx testing in a rural primary care setting supports its clinical feasibility and potential to enhance antidepressant prescribing. This project highlights the value of PGx testing in improving personalized mental health care and may serve as a model for broader integration in similar underserved settings.
- **Keywords:** pharmacogenomics, depression, primary care, antidepressants, precision healthcare, rural healthcare



Increasing Human Papillomavirus (HPV) Vaccination Rates and Uptake in Women Ages 30-45

Alex Whitham, BSN, RN, DNP-FNP Student

Background: Approximately 12,000 women are diagnosed with cervical cancer in the United States annually, and it is estimated that 4,000 women will die from cervical cancer each year. The primary cause of cervical cancer is the human papillomavirus (HPV), a sexually transmitted virus. Ninety-three percent of cervical cancers are preventable with proper screening and vaccination against HPV. HPV vaccination is a safe preventative measure for individuals ages nine to 45 and is 99% effective at reducing the risk of developing cervical cancer.

Purpose: This quality improvement project aimed to increase HPV vaccination rates and uptake in women ages 30-45.

Methods: The project implementation followed the Plan-Do-Study-Act (PDSA) cycle framework for quality improvement. The population included women ages 30-45 presenting for an annual gynecologic exam at a Midwest private OB/GYN clinic. Project objectives included increasing HPV vaccination rates amongst the clinic population, increasing empowered feelings towards HPV vaccine decision-making, and social media education engagement amongst the clinic population.

Findings: HPV vaccination rates increased by 4% amongst the clinic population. The number of women who felt empowered towards HPV vaccine decision-making was greater than 25% each month over a four-month period. The number of women that received positive social media influence reached 25% by the fourth month in a four-month period. The data collected supported the use of educational materials and social media influences to increase vaccine rates and uptake.

Discussion: With proper screening and education, HPV vaccination rates and uptake in women can be increased. Topic focused education and shared decision making in the clinical setting are effective ways to inform and empower patients. Social media platforms can be used as an additional resource to reach patients and provide topic focused education.

Key Words: Human Papillomavirus, Vaccination, Social Media, Shared Decision-Making, Papillomavirus Vaccine



SBIRT Implementation in a Midwest Family Practice Clinic

Jessica B. Whitmore BSN, RN, CMSRN, AGPCNP-DNP Student

Background: Substance use is a global health concern that impacts individuals across the lifespan and at every level of socioeconomic standing (Schulte & Hser, 2014). It is estimated that 46 million people in the U.S. aged 12 and older are impacted by substance use disorders (SUDs), and the prevalence only continues to rise (Bednar et al., 2024). Failure to detect substance misuse early in the course leads to the subsequent development of SUDs and chronic medical conditions that contribute to individual financial burden, comorbid conditions, and early mortality (McLellan, 2017; Schulte & Hser, 2014).

Purpose: The purpose of this DNP project was to implement an evidence-based protocol known as Screening, Brief Intervention, and Referral to Treatment (SBIRT) into an urban Midwest primary care clinic to aid in identification of substance use/misuse among adults aged 18+ and subsequently offer earlier intervention(s) for this population.

Methods: The Iowa Implementation for Sustainability Framework guided this evidence-based DNP project. This project was implemented into an urban family practice clinic in Iowa, and data was collected over a 24-week implementation period. Online educational resources available from the University of Iowa were utilized to enhance provider knowledge and confidence with SBIRT implementation. Data on screening adherence was collected via individual chart audits. Provider knowledge and satisfaction was also measured using individual Likert surveys (pre-, mid-, and post-implementation).

Findings: 518 adults between the ages of 18 and 82 were screened for substance use using the Annual SBIRT Questionnaire. Of those 518 patients, 67 screened positive for substance use and received expanded screening with documented brief intervention.

Discussion: The outcomes of this project demonstrate that the use of SBIRT can be successfully integrated into a family practice setting and may increase provider knowledge of substance misuse, as well as satisfaction with ease of substance use screening.



Initiation of Daily Spontaneous Breathing Trials in a Medical Intensive Care Unit

Jillian Willhoite, RN, BSN, DNP AG-ACNP Student

- **Background:** Patients in the intensive care unit (ICU) often require complex therapies, approximately 40% needing mechanical ventilation (MV). Daily spontaneous Awakening Trials (SAT) and Spontaneous Breathing Trials (SBT) provide opportunities for ventilation liberation, helping minimize complications like delirium. Most ICUs lack consistent SAT/SBT identification and implementation, which results in suboptimal outcomes. Consistent implementation of the SAT/SBT screening is crucial for timely extubation.
- **Purpose:** Many institutions are adopting nurse-driven protocols to enhance cost-effectiveness and safety. This project aimed to ensure the consistent application of nurse-driven protocols and effective communication to reduce the MV hours and the risk of delirium.
- **Methods:** The quality improvement project in a Midwest hospital ICU utilized a SAT/SBT protocol in the ICU. The Six Sigma framework was implemented using a previously accepted modified SAT protocol. The SBT protocol was developed based on a literature search in the PubMed and CINAHL databases. Integrating the protocol into the staff's daily workflow began with education during pre-shift huddles.
- **Findings:** The findings indicate that the nurse-driven SAT/SBT protocol significantly reduced MV hours by 81.41. No reintubations within 24 hours. Although four of the 18 patients required BiPAP post-extubation. The average ICU Delirium Screening Checklist (ICDSC) score reduced by 0.55 points. A significant improvement in documentation in the electronic health record via bedside staff was noted after the protocol implementation. The intervention group had 11 of 66 patients needing a higher level of care before protocol implementation, while only one in 60 in the pre-intervention group.
- **Discussion:** Encouraging interdisciplinary communication and leveraging the full capabilities of staff allowed quicker extubation. An unexpected outcome was increased staff documentation of the electronic healthcare record. Although SAT/SBT protocols have yet to be the nationwide standard, the growing body of literature, including this project, urges healthcare to adopt them as a best practice.



Improving Intravenous Catheterization in the Emergency Department

Austin Witt, BSN, RN, SRNA-DNP Student

Background: Peripheral intravenous (IV) catheterization is among the most common procedures performed by nurses in clinical settings. Despite its routine nature, IV insertions can be challenging in patients with difficult intravenous access (DIVA), defined as two or more failed IV attempts. Patients with DIVA often experience treatment delays, increased pain, and heightened anxiety. Evidence suggests that ultrasound-guided IV (USGPIV) placement significantly improves first-attempt success rates (Tian et al., 2024).

Purpose: To improve first-attempt IV insertion success rates in the emergency department (ED) by implementing an educational intervention and best-practice guidelines for nurse-performed USGPIV insertions.

Methods: The Iowa Model of Evidence-Based Practice guided this project's design and implementation. The project took place in a 22-bed community hospital ED from May 2024 to January 2025. All ED nurses received baseline education and were invited to complete a retrospective pre/post survey assessing confidence in identifying DIVA patients. A cohort of five ED nurses received additional training in USGPIV insertion, including didactic content, simulation, and supervised hands-on practice. Competency was defined as ten successful USGPIV insertions. Data on ultrasound utilization and IV insertion attempts were extracted from the electronic health record and analyzed.

Findings: Post-education survey results indicated a statistically significant increase in nurse confidence identifying DIVA patients in the ED ($p = 0.007$). Five nurses completed USGPIV training and demonstrated skill competency, performing a total of 247 USGPIV placements. Following the intervention, there was a statistically significant increase in the ED's first-attempt IV insertion success rates ($p < 0.01$).

Discussion: This project achieved its goal of increasing first-attempt IV insertion success rates to over 90% in the ED. These findings highlight the value of empowering nurses with evidence-based tools and skills to improve clinical IV insertion workflows.



Implementation of a Training Program for Receiving and Decontamination of Patients Involved in HAZMAT Incidents as it Applies to Emergency Department Staff at a VA Hospital

Arielle Anne Wolterman, BSN, RN, FNP-DNP Student

Background: The Veterans Health Administration (VHA) mandates that all VA hospitals with emergency services maintain a First Receivers Decontamination Program (FDRP) in accordance with VHA Directive 1051 (VHA Directive, 2016). This ensures that emergency department staff are trained and equipped to manage contaminated patients, safeguarding both patient and provider safety (VHA Directive, 2016).

Purpose: The purpose of this project was to implement a structured HAZMAT training program for VA Emergency Department staff to improve preparedness and response to hazardous material incidents.

Methods: Guided by the Plan-Do-Study-Act (PDSA) model, this quality improvement project was conducted in a Midwestern VA Emergency Department with the participation of emergency department nurses. A two-part training intervention was implemented: a self-paced PowerPoint module covering core HAZMAT response principles, followed by a hands-on, scenario-based simulation. Subject matter experts from Emergency Management provided instruction on new HAZMAT supplies. A formal Standard Operating Procedure (SOP) was developed. Pre- and post-intervention surveys using a 5-point Likert scale assessed changes in knowledge, PPE proficiency, and confidence. A post-training exam evaluated knowledge retention.

Findings: Post-intervention data showed significant improvements in staff confidence and preparedness. Confidence in responding to chemical exposures rose from 31.25% to 78.57%, and recognition of hazardous substances improved by 30.36%. Awareness of available HAZMAT resources reached 100%, and knowledge of equipment location improved by 46.42%. Participants achieved an average post-test score of 80%.

Discussion: The training program effectively increased staff preparedness, confidence, and competence in managing HAZMAT incidents. Simulation-based learning and interdisciplinary collaboration were key contributors to success. The creation of a formal Standard Operating Procedure (SOP) and ongoing training plans ensures program sustainability and promotes long-term emergency readiness within the VA Emergency Department.



Development of an Inpatient Virtual Nursing Program for Medical-Surgical Units

Megan Wright, BSN, RN, CCRN, DNP-FNP Student

- **Abstract**

- **Background:** Inpatient virtual nursing (IVN) is an innovative telemedicine model designed to support bedside nurses by redistributing non-hands-on tasks. It offers a potential solution to the nationwide nursing shortage and aligns with quality improvement efforts in patient care delivery.
- **Purpose:** This evidence-based practice (EBP) project aimed to develop a standardized IVN program for use on medical-surgical units at an academic medical center. The goals included creating a standard operating procedure (SOP), improving nurses' knowledge and attitudes about IVN by at least 20%, and developing an implementation plan approved by leadership.
- **Methods:** Guided by the Iowa Model, the project included pre- and post-intervention surveys distributed to nurses in three pilot units. An educational video about IVN was disseminated between surveys. Survey results and qualitative feedback were analyzed to evaluate program impact and inform SOP and implementation plan development
- **Findings:** The SOP and implementation plan were both approved by organizational leadership. Survey data showed a clinically significant improvement in knowledge scores ($p < .001$) and attitudes (mean $p = .029$), with agreeability increasing by 32%. The educational intervention effectively enhanced understanding and support for IVN among nurses
- **Discussion:** The IVN program demonstrated organizational readiness for adoption and highlighted the positive effects of education on staff engagement. By reallocating tasks like admissions and discharges to virtual nurses, the program has potential to alleviate bedside burden, improve communication, enhance patient care quality, and support nurse satisfaction and retention. Despite limitations such as small sample size and non-validated survey tools, this project laid a strong foundation for broader IVN implementation and future research into its long-term impact.



Evaluating Alarm Fatigue in Nurses on a Post-Surgical Unit

Megan Yrigoyen, BSN, RN, AGPC-DNP Student

Background: Alarm fatigue is a significant patient safety concern caused by excessive non-actionable physiological monitor alarms, leading to sensory overload and delayed clinician response. Research indicates that over 80% of hospital alarms do not require intervention, contributing to desensitization and increased risk of patient harm.

Purpose: This quality improvement project aimed to evaluate the impact of education on alarm fatigue and the implementation of daily electrocardiographic (ECG) electrode replacement on reducing non-actionable cardiac alarms in a 34-bed surgical specialty unit.

Methods: The project followed the Plan-Do-Study-Act (PDSA) framework. Nurses and patient care technicians completed the Charité Alarm Fatigue Questionnaire (CAFQa) pre- and post-intervention to assess alarm fatigue levels. Educational sessions were conducted to enhance staff knowledge on proper ECG electrode placement and the importance of daily lead replacement. Non-actionable cardiac alarm data were extracted in 30-day increments from Philips IntelliVue patient monitors and analyzed.

Findings: The primary objective of reducing alarm fatigue by 10% was not met, though slight improvements were noted in CAFQa scores. The secondary objective of tracking telemetry use was achieved, revealing a 42% increase in telemetry orders over the study period. The third objective of reducing non-actionable cardiac alarms by 25% was not met; however, a notable initial reduction in certain non-actionable alarms, such as "ECG lead off" and "cannot analyze ECG," was observed during the first month. Compliance with daily electrode changes was challenging to monitor due to documentation limitations and staffing fluctuations.

Discussion: While the intervention initially reduced specific non-actionable alarms, overall alarm frequency remained high. Modifying the electronic health record (EHR) to document electrode changes and implementing American Heart Association telemetry guidelines may further optimize alarm management. Future studies should explore standardized alarm customization and telemetry utilization criteria to mitigate alarm fatigue and improve patient safety.





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