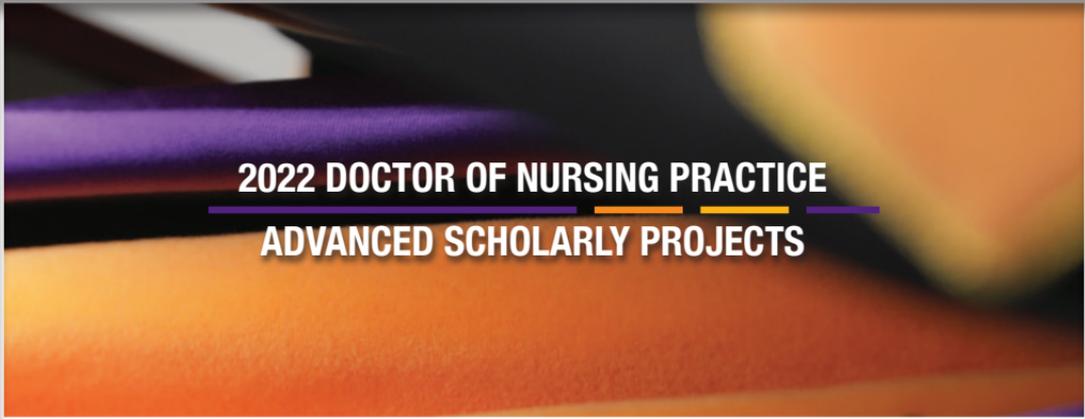


2022 Doctor of Nursing Practice Advanced Scholarly Projects





**2022 DOCTOR OF NURSING PRACTICE
ADVANCED SCHOLARLY PROJECTS**

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Dangers on the Frontline: How a System of Failures Led to a Catastrophe During the COVID-19 Pandemic

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The DNP Advanced Nursing project is the culminating scholarly experience that demonstrates a synthesis of the DNP student's coursework and mastery of the advanced specialty within nursing practice laying the groundwork for the student's future scholarship and practice. The DNP Advanced Nursing project focuses on translating and integrating the principles of evidence-based practice using the systems approach to improve healthcare outcomes at the practice, patient, or health system level. The student identifies, develops, implements, and evaluates the Advanced Scholarly Project under the guidance of a graduate nursing faculty member. The focus of the project is to use evidence to improve clinical outcomes or to resolve gaps between evidence and implementation in clinical practice and health policy.

A Message from

The President

Dear DNP Graduates:

It is my honor to congratulate you on successfully completing the Doctor of Nursing Practice program. Your dedication and hard work have put you in a position to be a leader in the nursing field. Your scholarly efforts have been most impressive and you have earned the respect and admiration of your faculty, fellow students, and professional colleagues.

At this very special time, I extend to you my heartiest congratulations and wish you well as you pursue your chosen careers. Healthcare professionals are in high demand, not only as a result of the pandemic, but also as the nation's focus on wellness continues to advance. Your resilience, creativity, and your determination in this new era epitomizes your leadership abilities. The work you do is critical for a healthy community, and I know you are well prepared to assume roles of significant leadership.

On behalf of the entire McKendree University community, I salute you on a job well done, congratulate you for this tremendous achievement, and thank you for your efforts going forward that will serve us all!

Sincerely,



Daniel C. Dobbins '81
President



The Program Director

Dear DNP Graduates:

Despite the uncertainty of the COVID-19 pandemic, each of you started your DNP journey in the middle of a chaotic time in our nation and in healthcare. Our cohort never had the opportunity to meet in person until the celebration of graduation. I want to extend my heartfelt appreciation for starting your DNP during such a challenging time in history; however, despite the challenges you faced, you have successfully completed your Doctor of Nursing Practice in Ethical Leadership! Congratulations to all of you for successfully completing your DNP!

Each of you triumphed in your DNP journey by capitalizing on your strengths and strategically using those strengths to overcome the unprecedented demands of completing a DNP project during a pandemic. You should be so proud of your accomplishments in the DNP program.

Along with the DNP nursing faculty, I am proud of your accomplishments, and together we celebrate your successful completion of the DNP program. Thank you for choosing McKendree University for your DNP in Ethical Leadership!

I wish you all the best in your future nursing leadership practice. May each of you continue to ethically lead the future of nursing!

Sincerely,

Richelle Rennegarbe, Ph.D.
Nursing Division Chair
DNP Program Director



Improving the Quality of Telephone Triage Call Documentation



Donna Cummins

D.N.P., MSN, R.N.C.,
WHNP-BC

Ethical
Leadership

Dr. Janice Wiegmann

Project
Chair

Purpose

Telephone triage is performed by nurses to identify the urgency of the caller's health needs and recommend the appropriate disposition and care advice that must be accurately documented. The purpose of this project was to determine if additional documentation training improved the quality of telephone triage encounter documentation.

Methodology

Schmitt-Thompson triage protocols are evidence-based guidelines designed to standardize nurses' responses to patient symptoms. Applying Knowles' Androgogy theory along with Benner's From Novice to Expert model, an educational intervention was developed to improve the documentation of nurse telephone triage encounters. The educational intervention was a voice-over PowerPoint lasting 51 minutes. Content of the PowerPoint was based on data from prior call evaluations, focusing on five areas with success rates less than 85%; all areas with success rates of 92% or less were discussed. All nurses working in the Patient Advisory Nurse (PAN) department at Carle Health were invited to participate. Participants completed a pre-test and post-test to assess for improvement. Participant calls were evaluated one month after the intervention and compared to non-participant call evaluations.

Results

Of the 24 eligible nurses in PAN, 13 chose to participate in this quality improvement project. There was a statistically significant improvement in correct answers on the post-test when compared to the pre-test ($p = .001$). Call evaluations from all groups showed statistically significant improvement when compared to 2019 call evaluations; however, participants displayed statistically significant improvement when compared to 2020 call evaluations while non-participants did not.

Implications for Practice

This project was designed to be functional and sustainable. The educational PowerPoint can be utilized by nurses new to telephone triage to improve their documentation skills. Non-participants were found to have been in PAN longer than participants, perhaps indicating a false sense of security or overconfidence in their documentation abilities. Continuing call evaluations as part of the annual performance evaluation process and recommending nurses view the educational PowerPoint when indicated based on those evaluations could contribute to improvements in documentation and overall performance.

Factors and Barriers Preventing the Proper Use of the Modified Early Warning Score on Medical-Surgical Units

Purpose

The purpose of this project was to investigate among medical-surgical nurses what were the perceived factors and barriers to Rapid Response Team (RRT) activation, as well as to investigate if an education training program on the use of the Modified Early Warning Score (MEWS) implemented on medical-surgical units decreased perceived barriers in RRT activation and MEWS utilization. Additionally this project attempted to investigate whether the implementation of MEWS decreased cardiac arrests and serious adverse events (SAE) in medical-surgical units. Patients often show early signs of clinical deterioration that present in subtle changes in multiple parameters of their vital signs. Identifying and acting on these subtle changes has been shown to decrease SAEs and cardiac arrests.

Methodology

Three Illinois Critical Access Hospital Network (ICAHN) hospitals volunteered to participate in the scholarly project. Eighty-six pre- and post-education surveys were distributed via Zoho survey. Information gathered included demographic data and nurse perceptions of factors and barriers to RRT activation, pre- and post-MEWS education. An educational PowerPoint presentation on the use of MEWS was distributed via email to the participating hospitals medical-surgical units. MEWS was implemented for three months on each unit. A retrospective chart review identifying cardiac arrests and SAEs completed three months prior to implementation and during MEW utilization. The data obtained from the retrospective chart reviews was used to determine if MEWS decreased cardiac arrest or SAEs.

Results

A total of 28 pre-education surveys were returned of 86 distributed amongst the medical-surgical units of the three ICAHN hospitals with a 32.56% return rate. Eighty-six post-education surveys were distributed amongst the medical-surgical units of the three ICAHN hospitals, nine post-education surveys were returned, a 10.47% return rate, five of the nine survey participants did not complete the pre-education survey. No data was returned on the retrospective chart reviews. With the low response rate and lack of retrospective chart review data, a proper analysis could not be completed.

Implications for Practice

While this scholarly project did not produce enough data for analysis, research on the use of MEWS shows a positive impact on patient outcomes, decreasing cardiac arrests and SAEs. Imbedding the MEWS score sheet with an automatic score calculation in the electronic medical health record could relieve the burden of recording and calculating the score from the nursing staff; therefore, increasing compliance in MEWS utilization.



Elizabeth Frost

D.N.P., MSN, R.N.
ACNP-BC, ACNS-BC

Ethical
Leadership

Dr. Richard Baker

Project
Chair

Incivility, the Impact, and the Ability to Overcome



**Angela
Gilbreth**

D.N.P., MSN, R.N.

Ethical
Leadership

**Dr. Richelle
Rennegarbe**

Project
Chair

Purpose

Incivility is a notorious issue in the nursing profession and has negative consequences for both nurses and patients. Research exists regarding the positive effects of implemented healthy work environment (HWE) initiatives on nurse satisfaction; however, research has not been expanded to evaluate the effect HWE initiatives have on incivility. The purpose of this project was to implement a HWE initiative at a community hospital to mitigate and prevent incivility. The implemented HWE initiative has the potential to positively influence nursing practice and patient outcomes.

Methodology

Selected floors experiencing significant change at a 144-bed community hospital were analyzed to determine the perception of incivility in relation to a HWE. Pre-surveys gathered data on nurses' perceptions of incivility and a HWE. Results indicated appropriate staffing, true collaboration, and meaningful recognition were important HWE domains needing to be addressed to assist with the presence of incivility within the facility. An electronic virtual smart speaker was uploaded with organizational information for nurses to retrieve nursing skill components, receive meaningful recognition messages and access quality improvement education in a convenient and timely manner. After a nine-week assessment period, the incivility survey was re-released to assess the effects the HWE initiative had on the perceived level of incivility experienced amongst registered nurses.

Results

Analysis of the survey results were inconclusive regarding the effects a HWE initiative had on mitigating incivility. Interestingly, anecdotal evidence confirmed registered nurses accepted, utilized, and appreciated the smart speaker device; however, a larger percentage of survey respondents reported experiencing instances of incivility after the HWE initiative. This data suggested either a HWE initiative increased incivility or other factors were influencing incivility. Significant factors such as a Coronavirus surge associated with the Omicron variant, a new human resources platform affecting nurse scheduling, and additional house-wide education was impacting nursing care at the studied hospital at the same time the post-implementation survey was opened. Overall, the post-implementation survey results raised questions about other factors affecting incivility. Specifically, based upon the literature, further analysis of the demographic factors of the nurses responding to the survey and their tenure at the studied site appeared to be warranted.

Implications for Practice

Based upon the nature of the analyzed statistics and the positive acceptance of the communication devices on the implemented units, it was recommended for smart speakers to be deployed to all floors. Additional studies can then be performed on the added and original units, with special attention paid to the identity of study participants. Such additional studies may reveal to what extent variables like tenure, and external factors such as the Coronavirus, may have affected the study and how future HWE initiatives may be better tailored to identify the connection between HWE and incivility. The project sparked many ideas for the growth of the health of a work environment during times of difficult staffing. When individuals are fully engaged in the process of maintaining a HWE, they will realize the benefits to the work environment.

Purpose

Arterial lines are commonly used in the intensive care unit and operating room settings to provide a method for continuous, real time, invasive blood pressure monitoring and frequent arterial blood sampling. A highly functioning arterial line allows the clinician to safely titrate highly potent vasoactive medications and administer intravenous fluids to achieve an optimal blood pressure for the patient. Arterial line failure can instigate delays in patient care, inappropriate patient management, increased costs, and unnecessary patient discomfort. The primary purpose of this project was to discern if a longer arterial catheter opposed to a shorter arterial catheter, was superior in maintaining a highly functional radial arterial line.

Methodology

Patients admitted to the Intensive Care Unit (ICU) over two different one-month time periods, who had an arterial line placed in the operating room or during their ICU stay, were included in the study sample. Data was collected prospectively, by the bedside nurse, on patient demographics (age, gender, height, weight, body mass index [BMI]), patient treatment with anticoagulants, catheter size and insertion site, role of provider inserting the arterial line, department placed, timing of catheter insertion and removal, and reason for discontinuation. Only the initial arterial line for each patient was included. Arterial line failure was defined as removal due to poor waveform or inability to draw blood. Descriptive statistics were calculated and arterial line failure rates and dwell times were assessed using chi-square tests or Fischer's Exact test for failure rate comparisons and a student's t-test and Mann-Whitney for dwell time comparisons. A Welch analysis with one-way ANOVA was conducted for the comparison of catheter dwell times for the 4.45 cm and 10.8 cm lengths due to large sample size differences.

Results

A total of 167 arterial lines in 167 patients were studied; 85% were placed in the radial artery. The majority (82%) of the catheters were 20-gauge (g) and 55% of the catheters were 4.45 cm long. Patient mean age was 54.9 years, 58% were male, and the mean BMI was 29.87. Catheter failure rates for radial arterial lines were 32% for the 20g x 4.45 cm catheter, 12% for the 3fr x 8 cm catheter, 10% for the 20g x 10.8cm catheter, and 38% for the 20g x 12cm catheter. Catheter dwell times for radial arterial lines that failed were 38.9 hours for the 20 g x 4.45cm catheter, 66.25 hours for the 3fr x 8cm catheter, 53.3 hours for the 20g x 10.8cm catheter, and 96.1 hours for the 20g x 12cm catheter. With the large difference in the sample sizes, 60% of the radial artery catheters were the shorter 20g x 4.45cm catheter, no conclusions or associations could be made regarding catheter length and failure rates.

Implications for Practice

The study suggested that further investigation was warranted to analyze the association between catheter failure rates and dwell times with catheter length.



Laurie Robertson

D.N.P., MHA,
MSN, R.N.

Ethical
Leadership

Dr. Richard Baker

Project
Chair

Improving Educators' Self-Efficacy of Recognizing, Reporting, and Responding to Victims of Sexual Violence Through Prevention Education and Implementation of a Toolkit



Amy Signore

D.N.P., MSN, B.S.,
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Ethical
Leadership

Dr. Jill Parsons

Project
Chair

Purpose

Sexual violence is a global issue. Children and adolescents are particularly vulnerable to this crime, and it impacts a victim throughout their lifespan. Educators are uniquely positioned to play a vital role in protecting their students from sexual violence; however, research showed some educators lacked confidence in the subject of sexual violence due to a lack of training and tools. A strong self-efficacy can lead an individual to take on challenging tasks and recover from setbacks. The purpose of this project was to develop an evidence-based, SANE-led sexual violence prevention educational presentation and a toolkit to promote educators' self-efficacy in recognizing signs and symptoms, responding to victims in a trauma-informed manner, and reporting suspicions or incidents of sexual violence. The project sought to improve educators' self-efficacy on the subject of sexual violence in order to positively impact their role in the protection of their students, leading to improved health outcomes for a vulnerable population.

Methodology

The Self-Efficacy Survey on Sexual Violence for Educators (SESSVE) survey was developed utilizing a 5-point not all confident/ completely confident format with higher scores indicating greater self-efficacy in three sections of the survey including recognizing, responding, and reporting (three "R's") suspicions or incidents of sexual violence. The SESSVE was reviewed by an expert in sexual assault to provide validity for the instrument. Students enrolled in McKendree University's School of Education formed the non-probability convenience sampling pool. Three SANE-led presentations were performed to collect data. Participants were provided with an informed consent, demographic form, and the SESSVE as a pre-test survey. Following the pre-test, participants were provided with the educational presentation and a toolkit on recognizing, responding to, and reporting signs of sexual violence. After the presentation and toolkit distribution, the participants completed the SESSVE as a post-test and provided with a debrief. Pre-test and post-test scores were then analyzed using descriptive and statistical methods.

Results

Two presentations were performed in-person with 19 student educators with 100% participation. The third presentation was moved to Zoom platform due to the rise of COVID-19. Of the 29 student educators that received the presentation, only seven participated, for an overall total of 26 student educators or 54.1% participation. The SESSVE survey section on recognizing signs and symptoms of sexual violence demonstrated a 29.91% increase in reported self-efficacy. The section on responding in a trauma-informed manner yielded a 23.72% increase in reported self-efficacy. The section on reporting incidents of sexual violence demonstrated a 20.16% increase in reported self-efficacy. The SESSVE survey was analyzed for overall reported self-efficacy; the pre-test composite mean score was 97.58 and the post-test composite mean score was 131.92. This demonstrated a 24.53% increase in reported self-efficacy, indicating the educational intervention positively impacted the student educators' confidence in the subject of sexual violence.

Implications for Practice

Considering the gravity of the effect of sexual violence, it is imperative to improve recognition, response, and reporting of this crime. Educators have a vital role in the prevention of sexual violence for their students. By providing educators with an evidence-based, expert led education intervention, educators' comfort level could increase as demonstrated with this project. This increased self-efficacy may make their role in sexual violence prevention less daunting. This project highlighted a need for intervention in the service of a highly vulnerable population. With early intervention, the health and the welfare of the population can be vastly improved and positively impact the nursing practice.

Dangers on the Frontline: How a System of Failures Led to a Catastrophe During the COVID-19 Pandemic

Purpose

The COVID-19 pandemic demonstrated the readiness of the U.S. healthcare system to rapidly respond to the threat of an airborne infectious disease, and in turn, protect American healthcare workers. Anecdotal evidence, such as limited availability of personal protective equipment (PPE); reuse of single use PPE, and other deviations from traditional infection prevention practices; and an increased morbidity and mortality among healthcare workers suggested that existing workplace safety standards were ineffective in protecting American healthcare workers during the COVID-19 pandemic. This purpose of this project was to identify vulnerabilities within the healthcare delivery system combined with policy and regulatory deficiencies that contributed to an increased morbidity and mortality of healthcare workers during the pandemic. This project also sought to determine if advocacy efforts for new or improved health policy regarding the U.S. response to airborne infectious disease threats would provide sufficient protections for healthcare workers and the patients under their care by ensuring adequate PPE in response to future airborne infectious diseases.

Methodology

The Centers for Disease Control and Prevention (CDC) POLARIS Policy Process and the Evidence Informed Health Policy Model were utilized to determine the root causes of the PPE shortage that led to an increased healthcare worker morbidity and mortality during the COVID-19 pandemic and determine the most feasible course of policy action.

Results

The Occupational Safety and Health Administration (OSHA) relied on enforcement of the General Duty Clause and existing PPE and respiratory protection standards to enforce workplace safety throughout the COVID-19 pandemic; in addition to a brief, six-month period of enforcement of a more targeted emergency temporary standard (ETS) that was in effect during the later stages of the pandemic. While the ETS provided enhanced workplace protections, the lack of a permanent standard proved to be detrimental to the health and safety healthcare workers.

A policy paper was developed outlining four key policy recommendations for strengthening protections for the remainder of COVID-19 and in future airborne infectious disease threats. Those recommendations were:

1. OSHA should immediately reinstate and enforce the COVID-19 Healthcare ETS until it is superseded with a permanent infectious disease standard.
2. Congress must act in a timely manner to protect the health and safety of healthcare workers.
3. OSHA should revise and expand 29 CFR 1910.134, Respiratory Protection Standard under 1910 Subpart I Personal Protective Equipment, to include specific requirements for the healthcare industry in addressing airborne biological hazards.
4. Individual states should implement airborne infectious disease standards with oversight and enforcement through their State Occupational Health and Safety Plans.

This final policy paper was disseminated to key governmental agency stakeholders, as well as other key stakeholders, for use in educating and engaging policymakers in initiating change.

Implications for Practice

Global interconnected has made future airborne infectious disease threats inevitable. While OSHA began the policymaking process for developing a permanent infectious disease standard more than a decade ago, they have provided assurances that, in the wake of COVID-19, a permanent standard would be issued soon. The OSHA policymaking process is traditionally lengthy, and resilience to enact change often fades once the immediate threat no longer exists. For this reason, healthcare workers must continue to educate and engage policymakers until substantial changes are enacted that provide workplace safety standards that reduce morbidity and mortality in response to future airborne infectious disease threats. At the conclusion of this project, OSHA hearings were being conducted to received public comment on transitioning the COVID-19 ETS into a permanent COVID-19 standard. While the ultimate goal was a permanent airborne infectious disease standard, creating a permanent COVID-19 standard was an important first step.



Debra Waters

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