Screening for Intimate Partner and Sexual Violence in a College Health Clinic

Toni Boyajian

Problem & Purpose: Intimate partner violence (IPV) and sexual violence (SV) are preventable health problem that occur more often in certain life stages. More than half of those who experienced violence report their first incident before age 25. A national college survey results revealed 9% of those surveyed experienced an abusive relationship in the last year. College health clinics (CHC) have an opportunity for IPV/SV early detection and support however 90% of those who had experienced IPV/SV reported not being asked at their CHC. Fifteen percent of CHC health care providers (HCPs) reported IPV/SV screening. At a mid-Atlantic university, screening for "forced or coerced sex" is routinely asked only in specific visits. There is a strong recommendation to screen universally for IPV/SV in CHCs. The purpose of this project was to evaluate IPV/SV screening rates and HCP responses to positive screenings. HCPs were supported with trauma-informed training and the screening tool was integrated into the patient preparation workflow and electronic health record (EHR).
Methods: During the fall semester, the E-HITS screening tool was integrated into the patient preparation and electronic health record (EHR) to facilitate universal screening. Campus/community resources supported HCPs with four IPV/SV trainings. After acknowledging statements of confidentiality, students completed the screening privately in the exam room. The score was automatically calculated and a score greater than or equal to 8 was positive for increased risk for IPV/SV. HCPs provided counseling and supportive referrals where appropriate.
Results: Over 13 weeks, HCPs screened a median of 90% of students. The range of positive screenings were from zero to eight percent with a median of three percent. HCPs supported a median of 100% of students who screened positive for IPV/SV.
Conclusion: By integrating the E-HITS screening tool into the workflow and EHR, screenings are more likely to be completed and positive screenings identified. HCPs are more likely to participate in IPV/SV screening when supported with training. Within a CHC, the E-HITS tool language was a barrier to capturing other pertinent forms or instances of violence.

Implementation of a Multidisciplinary Approach to Mass Casualty Incident Response

Theresa DiNardo

Problem and Purpose: Front line staff are expected to respond to mass casualty incidents (MCI's) although the literature demonstrates that staff do not perceive themselves as prepared. The lack of preparedness highlights the lack of clarity of one's role and function during MCI's. Triaging and admitting a massive volume of casualties, expanding space capacity to accommodate the incoming casualties, and rendering rapid life-saving interventions are considered overwhelming for staff who work in these environments. The purpose of the Doctor of Nursing Practice project was to implement the use of standard operating procedures (SOP's) as a training approach to disaster preparedness for a multidisciplinary health care team at an urban academic hospital.
Methods: The staff were measured for their ability to be recalled during an MCI and how well they performed during the exercise. The staff recall response was measured in minutes and performance was measured using the evaluation guide (EEG) using a four-point Likert scale.
Results: Staff recall response via SMS texting reported improved response times measured in minutes. During the functional exercise (FE) the median response time was 8 minutes, and the interquartile range 75 minutes (IQR = 75). Generalized linear models with a gamma distribution were used. Nurses demonstrated significant improvement in all disaster domains ($p = .001$). Physicians had improved in their knowledge of triage, and pharmacists and blood bank technologists worked unit-based satellite stations as an essential part of the first responder team. Pharmacists demonstrated knowledge of the process during the tabletop discussion ($p = .05$), and performed well during the large (FE). Registrars were able to admit a volume of patients expeditiously and track them throughout the healthcare system.
Conclusion: The use of an SOP as a step-by-step guide to roles and functions during an MCI was an effective approach for mass casualty preparedness by improving clarity of roles and functions.

Treating Chronic Pain: Therapeutic Music in Adult Palliative Care

Julie P. Goode

Problem and Purpose: Palliative care aims to provide maximum comfort to individuals suffering from life threatening illness. The chronic pain often seen in this population is multifocal, including physical, emotional and psychosocial symptoms. Pain management in palliative care is often challenging due to medication side effects and frequently affects those with primary cancer diagnoses as well as non-malignant terminal illness. Therapeutic music (TM) has been shown to reduce chronic pain in palliative care patients. Multiple studies and systematic reviews have demonstrated the use of TM leads to significant reductions in chronic pain. The purpose of this doctoral project is to improve the quality of pain management for palliative care residents suffering from chronic pain.

Methods: This quality improvement project introduced nonpharmacologic pain management by initiating a TM program in the adult palliative care unit of an 88-bed rehabilitation and nursing home. Nursing and ancillary staff attended a 20-minute education session on the benefits and efficacy of TM in the reduction of chronic pain, and four members of the Activities Department were trained to conduct the TM sessions. The palliative care nurse practitioner identified 10 residents most likely to benefit from TM and enrolled them in the program. TM sessions were held for 30-60 minutes twice a week for seven weeks. Residents' chronic pain scores were assessed before and after each TM session. Residents were also asked to rank their enjoyment of the intervention on a 4-point Likert scale after each session. During week four of the program residents requested an extension of TM sessions and all future sessions were scheduled for 60 minutes. However, all post session assessments were completed after 30-minutes.

Results: The average participation rate was 50% (n=5), however, there was a notable upward trend from 33% to 69% over the seven-week implementation period. All residents reported a significant decrease in chronic pain levels (mean 44.3%; $p<0.01$) after TM sessions and resident enjoyment scores averaged 3.5 on a 4-point Likert scale.

Conclusion: The implementation of a therapeutic music program improved the quality of pain management for palliative care residents suffering from chronic pain.

Implementing Exercise and Healthy Nutrition Groups in an Inpatient Behavioral Health Setting

Lisa M. Hoffmann

Problem and Purpose: Factors such as obesity and metabolic syndrome (MS) contribute to a reduced life expectancy of up to 25-years in individuals who have a mental illness. Exercise and nutrition interventions are recommended to improve their life expectancy. The purpose of this project was to implement a multimodal wellness plan to reduce obesity and MS risks among patients in an inpatient behavioral health unit (BHU).
Methods: An evidence-based multimodal wellness plan was implemented over 12-weeks to promote healthy behaviors. The intervention included implementation of exercise groups, healthy nutrition groups, and distribution of lifestyle information packets. Registered nurses and unit clerks recorded data daily on audit sheets.
Results: Data were collected for 251 patients who were discharged during this quality improvement (QI) project. The average body mass index (BMI) was 28.1 (*SD*=6.6, Median=27.2, range=17.0-48.9). Of these patients, 25.1% attended an exercise group, 41.0% attended a nutrition group, 15.5% attended both groups, and 37.1% verbalized intention to make a healthy behavioral change. Among obese patients with BMIs ≥30 (n=92), 19.6% attended an exercise group, 39.1% attended a nutrition group, 14.1% attended both groups, and 28.3% identified intention to make a healthy behavioral change. There was no significant relationship between BMI status & group attendance (BMI and exercise group: $p > 0.05$; BMI and nutrition group: $p > 0.05$; BMI and both groups: $p > 0.05$), but those with higher BMI had lower rates of verbalizing an intention to make a healthy behavioral change ($p < 0.05$). Longer length of stay (LOS) was associated with higher rates of group attendance (LOS and exercise group: $p < 0.001$; LOS and nutrition group: $p < 0.001$; LOS and both groups: $p < 0.001$) and higher rates of having verbalized an intention to make a healthy behavioral change ($p < 0.001$).
Conclusion: A multimodal wellness plan can be implemented on an inpatient BHU with some benefit, although staff required frequent coaching to ensure consistency of implementation and data collection. Since patients with longer LOS were more likely to attend groups and have verbalized the intention to make a healthy behavioral change, settings with longer LOS may see a greater benefit.

Post-operative Visual Loss Clinical Practice Guideline in the Preoperative Arena

Ming Li

Problem and Purpose: Postoperative visual loss (POVL) is a critical issue in anesthesia, especially in robotic surgeries. POVL is defined as an unpredictable and devastating injury involving the patient's visual system that causes permanent damage or total blindness. One POVL event can increase the length of stay from 4.1 days to 8.6 days. The purpose of this DNP project is to develop a clinical practice guideline (CPG) to prevent POVL during the preoperative phase.

Methods: The POVL prevention CPG was developed in collaboration with an expert panel consisting of a chief anesthesiologist, a chief CRNA, and two doctorate in nursing practice (DNP) students. The expert panel assessed the quality of evidence and revised the CPG draft accordingly. The Appraisal of Guidelines for Research, and Evaluation (AGREE) II tool was used by the expert panel to analyze the quality and applicability of the CPG. A Practitioner Feedback Questionnaire (PFQ) was distributed and feedback was collected anonymously to determine the usefulness of the CPG.

Results: The results from the AGREE II tool its six domains are as followed: Scope and Purpose (100%), Stakeholder involvement (100%), Rigor of development (100%), Clarity of presentation (100%), Applicability (87%), and Editorial Independence (100%). The results from the PFQ shows that 96% of the anesthesia providers also said there is a need for a guideline on POVL prevention. 96% of the local hospital's anesthesia providers are also willing to use the CPG in their practice if it was approved at the facility.

Conclusion: Based on the PFQ results, the anesthesia providers at this local hospital are willing to incorporate the POVL prevention CPG into their practice. The development of the POVL prevention CPG has helped the providers at the site become aware of the problem. The CPG also educated the providers on evidence-based solutions that can be applied to their practices in regards to POVL prevention in the preoperative phase.

Electronic Patient Acuity Scoring Scale to Improve Falls and Call Light Responsiveness

Sasha Nanji

Problem & Purpose: Nurses perceive their unbalanced acute assignments as a heavy workload impacting the incidence of patient falls and nurse responsiveness. Charge nurses may be inconsistent in how they assign patients due to a lack of an adequate systematic way to measure and identify specific patient care needs. The purpose of this quality improvement (QI) project is to implement a revised version of the Electronic Patient Acuity Scoring Scale (E-PASS) to improve charge nurses' ability to make nurse-patient assignments, decreasing the number of patient falls and improving the responsiveness to call lights.

Methods: The quality improvement project was implemented in an inpatient medicine unit specializing in telemetry at a large academic hospital from October-November 30, 2019. Subjects were all nurses on an in-patient medicine unit at a large academic hospital. About 600-720 patients were admitted during the project. Pre-education classes were held to inform nurses of the E-PASS and how to use it. Individual meetings were given for nurses unable to attend. Champions were trained to help educate nurses. E-PASS competency checklists were completed prior to implementation. Process changes consisted of nurses utilizing the E-PASS on all their patients prior to shift change and charge nurses using the E-PASS scores to make nurses' assignments. Announcements were made to remind nurses to complete E-PASS. Audit tools and random observation were used to track compliance.

Results: All of nurses on the inpatient unit completed the E-PASS before shift change. All charge nurses used E-PASS scores to make nurse assignments. The percentage of nurse responsiveness to call lights improved from 41% before implementation to 50% after implementation. The mean number of patient falls decreased during implementation from 2.67 patient falls to 1 patient fall.

Conclusion: The implementation of the E-PASS improved both nurse responsiveness to call lights and the number of patient falls. The study showed feasibility of the use of the E-PASS with this population and setting. Results reinforced the importance of measuring patient acuity using a standardized tool for improving nurse responsiveness to call lights and patient falls. It has the potential to reduce inconsistency in regard to nurse assignments and promote similar workload among nurses, improving patient outcomes.

Implementing Posttraumatic Stress Disorder Screening at an Adult Substance Use Disorder Clinic

Jemima Pierre-Jacques

Problem & Purpose: Posttraumatic stress disorder (PTSD) is a prevalent co-occurring disorder among substance use disorder patients. Often, urban substance use disorder clinics do not screen for PTSD, and patients are not referred to available mental health services unless in crisis. When PTSD is left undetected and unaddressed, it adversely affects patients' symptoms severity and treatment outcomes. The purpose of this quality improvement project was to identify adult substance use disorder patients with probable PTSD using the Primary care PTSD screen for the Diagnostic and Statistical Manual of Mental Disorders, fifth edition (PC-PTSD-5), and evaluate the effectiveness of the screening to trigger referral for additional mental health assessment.
Methods: The project occurred over 12 weeks and included all qualified substance use disorder patients, 18 years, and older in an urban, outpatient substance use disorder clinic. Screening was implemented by a team of champions trained in the administration and scoring of the Primary care PTSD screen for the Diagnostic and Statistical Manual of Mental Disorders, fifth edition (PC-PTSD-5). Education regarding PTSD symptoms was required for all screened patients. Data were analyzed using descriptive statistics of the sample and a Chi-square test to determine the association between referral and PC-PTSD-5 score. Weekly progress of screening, referral, and education were tracked using a run chart.
Results: Of the 116 eligible patients, 62 were screened for PTSD. Thirty-five screened patients received a referral for further assessments. A chi-square test of independence was performed to examine the relation between PC-PTSD-5 score and referral. The relation between these variables was significant, X^2 (2, N = 62) = 11.2, p = .0037. Patients with a higher PC-PTSD-5 score were more likely than those with a lower score to receive a referral for further mental health assessment.
Conclusions: The PC-PTSD-5 screening tool was successful at increasing mental health services awareness and utilization by substance use disorder patients through the score-based referral process. PTSD screening and score-based mental health referrals were recommended to become standard practice. Digitalization and integration of the screening tool in the electronic health record are instrumental in ensuring sustainability and compliance.

Implementation of Dextrose Gel for Asymptomatic Hypoglycemia in Newborns

Anjana Solaiman

Problem & Purpose: Neonatal hypoglycemia in the Newborn Nursery is a common problem that may contribute to poor health outcomes. Firstline treatment for asymptomatic hypoglycemia includes formula feeding, and/or transfer to the Neonatal Intensive Care Unit (NICU) for intravenous glucose. These treatment options are undesirable because breastfeeding/bonding are disrupted, and costs may be increased. The purpose of this quality improvement (QI) project was to implement 40% buccal dextrose gel as the first line treatment of asymptomatic hypoglycemia in newborns at an academic medical center in the mid-Atlantic region.
Methods: This QI project was implemented during a 12-week period in the Fall of 2019. The target population included infants admitted to the newborn nursery who were less than 24 hours of life (HOL) with an identified risk factor for hypoglycemia (birthweight >3800 grams or <2500 grams, gestational age <37 weeks, LGA or SGA, or is an infant of diabetic mother), with asymptomatic hypoglycemia (blood glucose levels between 20- 40mg/dl). The QI project modified the current neonatal hypoglycemia clinical practice guideline (CPG) and implemented 40% dextrose gel as initial therapy in conjunction with feeding through the development of an order set, creation of documentation in the electronic health record, training personnel and collaboration with pharmacy to stock the gel.
Results: During the implementation 16 newborns received glucose gel (N=16). Treatment success, defined as blood glucose levels >40mg/dL following the administration of gel, was achieved in 87.5% of newborns. Newborns in the treatment failure group had an initial blood glucose level of <20mg/dL, a deviation from the CPG inclusion criteria. More than half (55%) of newborns who were exclusively breastfeeding (N=9) received medically indicated formula supplementation. Five patients were transferred (N=5) to the NICU, 2 patients had achieved treatment success, but were unable to maintain adequate glycemic levels.
Conclusions: Future QI cycles should include exploration of treatment failure with modifications to improve CPG adherence, consideration for increasing doses for responsive newborns as well widening the gestational age inclusion criteria. Overall the outcomes of this QI project demonstrated the feasibility of implementing 40% dextrose gel for infants with asymptomatic hypoglycemia.

Enhanced Recovery After Surgery for Cesarean Delivery Clinical Practice Guideline: Postoperative Interventions

Alexandra Wali

Problem & Purpose: In the United States the CD rate is approximately 32% of all births, with well over a million performed each year. Compared to women who give spontaneous vaginal birth, CD is associated with prolonged length of stay. These women are usually young and healthy, possess the ability to make a rapid recovery, and have a unique incentive to achieve baseline functional capacity to care for their newborn. Enhanced Recovery After Surgery (ERAS) is a standardized set of perioperative interventions implemented to improve surgical outcomes, optimize patient care, and reduce hospital costs. Even though there is an enormous amount of evidence to support the improvement in perioperative pathways for many surgical specialties with ERAS, obstetrical surgery lacks established protocols based on such principles. The purpose of implementing this ERAS derived clinical practice guideline (CPG) is to standardize care and optimize recovery for parturients undergoing elective CD throughout the perioperative period.

Methods: The CPG was created using high quality evidence and subsequently evaluated by elected stakeholders using the Appraisal of Guidelines for Research and Evaluation (AGREE) II tool. Dissemination took place following the incorporation of stakeholder recommendations and feedback. A Practitioner Feedback Questionnaire (PFQ) survey following the formal presentation or the CPG during grand rounds was given to anesthesia staff to assess acceptability and usability of the CPG.

Results: Feedback received from the AGREE II Tool and PFQ show satisfactory results on the quality, usability, applicability, and acceptance of the CPG among anesthesia staff.

Conclusion: The CPG's favorable AGREE II Tool assessment score, its widespread acceptance among staff as evidenced by the PFQ results, as well as the strength of evidenced utilized to create the recommendations included in the CPG, will help facilitate the quality and safety of recovery for elective CDs at the institution of interest.