Improving the Use of LGBTQ+ Inclusive Language Among the Health Care Team

Corinne Burtschi, DNPc
Faculty Project Advisor: Melanie Keiffer, DNP, APRN
Site Mentor: Jennifer Fenn, AGNP

Purpose: This quality improvement project aimed to increase the health care team's knowledge and comfort in the use of LGBTQ+ inclusive language by December 2023. Inclusive language is the avoidance of terms that are considered sexist or biased against any group of people. When providing care to LGBTQ+ patients, health care providers often struggle with the use of inclusive language. Evidence reveals education on inclusive language improves the knowledge and comfort of health care providers, nurses, and medical students. Patients report higher patient satisfaction and better clinical outcomes with providers who use inclusive terminology.

Methods: The project site was a rural primary care clinic in a northeastern state. Data was collected to determine whether preferred pronouns and gender identify was documented in the electronic health record. Education on LGBTQ+ inclusive language was delivered to healthcare providers and supporting staff. Resources to support the use of LGBTQ+ inclusive language were distributed.

Results: The documentation of preferred pronouns and gender identity in the electronic health record was 100% (n=106). After the intervention, the post-education survey revealed 100% participant's *(*n=17) agreed that knowledge increased in relation to the use of LGBTQ+ inclusive language. Whereas, 94% participant's agreed comfort increased in relation to the use of LGBTQ+ inclusive language. Post intervention, 88% of participants planned to take action to apply gender inclusive language in the workplace.

Conclusion: Education on inclusive language improved the knowledge and comfort of health care staff. Taking action to apply gender inclusive care language is essential to providing patient-centered care.

Reducing 30-day Heart Failure Readmissions Utilizing Transitional Care

Melissa Beaudry, MSN, APRN, FNP-BC
Faculty Project Advisor: Holly Whitcomb, DNP, APRN, FNP-BC
Site Mentor: Andrea Carey, DNP, APRN, FNP-BC

Purpose: Heart failure has a high prevalence and is associated with increased healthcare spending. The cost is driven by the frequency of hospitalizations and high rates of 30-day readmissions. The American Heart Association identified transitional care management (TCM) as effective in reducing hospitalizations. The purpose of this quality improvement (QI) project was to increase outreach to patients being discharged from the hospital with HF over 6 weeks in a rural primary care practice. A secondary aim was to evaluate how this impacted 30-day readmissions and ER utilization.

Methods: A retrospective chart review was conducted 12 weeks before implementation to obtain baseline TCM data. A one-hour educational training session was provided to nurses on TCM activities. These included post-discharge phone calls made within 48-72 hours and office visits 5-7 days after discharge. A retrospective chart review was performed during the intervention period and for 12 weeks post-intervention.

Results: The number of post-discharge phone calls increased by 26% and office visits decreased by 3% during the intervention period. The number of 30-day readmissions and ER visits were reduced by 29% and 14% respectively. No patients received TCM activities in the post-intervention period. Results were limited by the low number of participants.

Conclusion: TCM represents a feasible way to prevent 30-day readmissions and ER utilization, thereby reducing healthcare spending. TCM requires office resources to be successful, notably adequate nursing staff with clear roles/responsibilities and appointment availability. Measuring patient quality of life or understanding of disease self-management is an area of future study.

Provider Attitudes Toward Screen Time Discussions in Pediatric Patients Ages 2-5 And Utilization of the Family Media Plan

Sarah Bevet, DNPc, RN, BA
Faculty Project Advisor: Rebecca Nagle DNP, APRN, BC-PNP, IBCLC;
Site Mentor: Dr. Gussie Logan & Leah Macaulay, APRN

Purpose: The U.S. Department of Health and Human Services reports that from 2020-2021, over 60% of children ages 2-5 exceeded the Bright Futures guideline of a maximum of one hour of screen time per day. The Family Media Plan (FMP), created by the American Academy of Pediatrics, is designed to help families put limits on screen time and abide by those parameters. The goal of this project was to increase provider attitudes surrounding utilization and importance of the FMP in children ages 2-5.

Methods: At a pediatric clinic, providers were educated via presentation on how to utilize the FMP and best practice guidelines on screen usage in children ages 2-5. A pre-intervention survey was given to determine baseline provider attitudes toward this tool. Upon completion of the project, a post-intervention survey was distributed to examine changes in attitudes toward screen time and FMP utilization at well-child visits.

Results: Of the two participating providers, attitudes toward the importance of this topic showed an increase of 25%, 100% and 200% in survey questions pre- and post-intervention. There was a 31% increase in FMP distribution.

Conclusion: There was an increase in the importance of which providers viewed screen time discussions, as well as distribution of the FMP. Limitations that could be addressed are the small number of participating providers and well-child appointment visits that are not sufficient in length to address screen time discussions. A wider distribution of the intervention at other local pediatric practices is recommended.

Addressing Emergency Department Response to Hypertensive Disorders of Pregnancy

Alexis Calcagni, DNPc, RN
Faculty Project Advisor: Rosemary Dale, Ed.D, APRN,
Site Mentor: Linda Havey DNP, MBA, RN-BC

Purpose: Hypertensive disorders of pregnancy (HDPs) are among the most common pregnancy complications in the United States and pose significant risks to maternal and fetal health. Recognition in all healthcare venues utilized by pregnant and postpartum individuals, such as Emergency Departments (ED), is essential to prompt intervention. Current guidelines recommend ED proficiency in recognition and response to maternal emergencies. This quality improvement project aimed to improve ED recognition and response to HDPs.

Methods: An educational toolkit was compiled based on published materials from nationally recognized HDP bundles and presented to ED registered nurses (RNs). The modules included basic HDP education, a succinct infographic, and introduction of evidence-based algorithms that align with the hospital's obstetric unit. A Likert-type survey was used to quantify the success of project aims using identical pre- and post-intervention surveys and short answer questions.

Findings: Total scores increased across all participants (n=8). The surveys represented a substantial increase in participants' perceived knowledge and confidence. Qualitative answers confirmed necessity for education on obstetric care and feedback for future implementation.

Conclusions: The findings indicate early success of HDP educational toolkits in healthcare venues outside obstetrics. This project implementation highlighted the importance of flexible education strategies tailored to the ED setting. The time-intensive nature of the intervention presented limitations in scalability. In addition, further research is needed to assess long-term patient outcomes. Continued efforts to enhance ED HDP response and streamline education are essential for mitigating the significant maternal and fetal morbidity associated with HDPs in emergency care settings.

School Nurse Adherence to Evidence-Based Best Practice Screening for Functional Constipation in the School-Age Child

Nancy L. Castner DNPc, MSN, RN
Faculty Project Advisor: Jean Evelyn Pelski PhD, APRN, NNP-BC

Purpose: Pediatric functional constipation (PFC) is a common health issue affecting children's well-being and quality of life. This project aimed to improve the identification and management of PFC-related bowel and bladder dysfunction in the primary school setting. The primary goal was to increase the percentage of children screened by school nurses for PFC, leading to timely referrals to primary care clinicians.

Methods: An evidence-based educational module was developed to educate school nurses of the connection between functional constipation and associated bowel and bladder dysfunction. A comprehensive workflow was implemented, utilizing standardized assessment practices, and validated pediatric-based functional constipation assessment tools.

Results: A retrospective chart review established baseline screening rates, which demonstrated a significant increase in the percentage of children screened for PFC (from 19% to 91%) and referred to primary care (by 25%) after the implementation of the educational module and assessment workflow.

Conclusion: This project demonstrates that increased screening for PFC in primary schools is achievable through education, evidence-based assessment strategies, and the dedication of school nurses. The adoption of comprehensive educational interventions and evidence-based practices enabled the identification, management, and timely referral to primary care clinicians for PFC in the school setting.

Evaluating E-Consults in Primary Care to Improve Usability and Efficiency

Christina Chon DNPc, RN
Faculty Project Advisor: Melanie Keiffer DNP, APRN, ANP-BC, CNE
Site Mentor: Alison Bovee, MBA

Purpose: Patients in a rural state face challenges in accessing specialty healthcare providers including provider shortages, travel distance, cost, lack of insurance coverage and lack of internet access. Electronic consultations provide an opportunity to improve access to specialists without local specialty and subspecialty healthcare services. The usability and outcomes associated with the electronic consult workflow at a university-affiliated primary care clinic (average provider time to complete the consult, time to consultation, number of avoided specialty visits, type of consult and provider or patient satisfaction) was unknown. The aim of this project was to evaluate the process of e-consults in primary care to improve usability and process efficiency over a 12-month time frame.

Methods: The e-consult process flow was evaluated to understand the usability and outcomes associated with the clinic's workflow. Education on the e-consult process was presented and providers were surveyed about facilitators for and barriers to the process.

Results: The number of e-consults increased over time (n=12) during the project time frame; 58% (n=7) of specialty consults were resolved electronically allowing patients to be co-managed without an additional patient visit to a specialty provider, and 75% (n=9) of primary care providers received a consultant response within 24 hours of the consult initiation. Providers surveyed agreed the process was efficient.

Conclusion: E-consults are an efficient tool to integrate specialty care with primary care and improve availability of specialty services in rural areas. Additionally, this process provides opportunities for primary care providers to collaboratively manage patients with specialists.

Improving University Student Access to Gender Affirming Care

Charlie Cross, DNPc, RN
Faculty Project Advisor: Lili Martin, DNP, RN, PCCN
Site Mentor: Kate Jerman, MPH

Purpose: Transgender and gender diverse (TGD) individuals are at a higher risk for depression and suicidality than their cisgender, heterosexual peers and risk increases without access to desired gender affirming care. Gender affirming hormone therapy (GAHT) is one method of medical transitioning and is within the scope of practice for primary care providers to prescribe. This quality improvement project aimed to increase student access to gender affirming care by providing education on GAHT and how to access it.

Methods: At a New England university's LGBTQ+ student organization, in-person presentations and an accompanying infographic were created for students and staff regarding access to GAHT at the campus student health center. Students were surveyed after the presentation and staff were surveyed before and after the presentation to assess awareness of resources on campus and how to access them.

Results: Staff (n=5) and students (n=6) reported increased awareness of how to access GAHT on campus after the educational sessions. 100% of students reported an increase in knowledge of GAHT, and 67% agreed they were more likely to use the university student health center for gender affirming care after this programming. 100% of staff reported knowledge of how students can access gender affirming care on campus, an increase of 33%.

Conclusions: Lack of knowledge and awareness of resources is a significant barrier in access to gender affirming care. Improving communication between student health services and TGD students and supportive staff may increase access to needed care, including GAHT.

Optimizing Exclusive Breastfeeding in the Early Postpartum Period Through Effective Transitions of Care

Madeline Dubois, DNPc, RN, IBCLC;
Faculty Project Advisor: Rebecca Nagle DNP, APRN, BC-PNP, IBCLC;
Site Mentor: Courtney Walker-Borch, DNP, APRN, BC-FNP, IBCLC

Purpose: While the evidence supporting exclusive breastfeeding is abundant, parents meet several challenges in the early postpartum period that place them at risk of early breastfeeding cessation. In the U.S., exclusive breastfeeding rates drop from 83.2% to 62.6% in the first week postpartum. Step 10 of the Baby-Friendly Hospital Initiative (BFHI) outlines the importance of care coordination upon discharge to ensure outpatient lactation support. This project aimed to determine whether implementation of a proactive lactation care workflow affects the percentage of breastfeeding dyads receiving lactation support in the early postpartum period. Staff confidence with using the workflow was assessed using a Likert-scale survey.

Methods: Infants were identified for inclusion based on whether they were born at the medical center and had an in-network primary care provider. A smart phrase integrated into the patient after-visit summary was used by staff lactation consultants to document outpatient lactation supports. Primary care provider notes were reviewed to determine whether lactation supports were received within 7 days postpartum.

Results: 49 infants met inclusion criteria in the reactive group and 20 infants met inclusion criteria in the proactive group. Half of the infants in the proactive group received outpatient lactation care within 7 days postpartum. Primary care providers proved to be the most utilized form of outpatient lactation care.

Conclusions: IBCLC staff reported an increase in confidence in using the proactive workflow. Despite efforts to connect families with lactation resources, further research is needed to determine if families are receiving support in the early postpartum period.

Promoting the Utilization of Campus Mental Health Resources by BIPOC University Students

Sean M. Fung-On, RN, DNPc
Faculty Project Advisor: Mary Val Palumbo, DNP, APRN, GNP-BC
Site Mentor: Arthur Klossner PA-C

Purpose: BIPOC university students face an elevated risk and prevalence of adverse mental health conditions. Despite this, BIPOC students underutilize campus mental health resources, a tendency that may be negatively influenced by bystanders' (i.e., student peers) lack of preparedness and confidence in mental health situations. The site of implementation indicated a lower utilization of the mental health services offered on campus by the BIPOC student population. Such underutilization may contribute to heightened instances of unreported and untreated mental health conditions within this demographic.

Method: The intervention consisted of a 1-hr cultural-focused mental health bystander intervention program for a suburban university student population. Two workshops were held during the 2023 fall semester. The Gatekeeper Behavior Surveys (GBS) measured participants' self-rated confidence, preparedness, and likelihood to act pre- and post-workshop. A chart review of BIPOC students utilizing student health services for mental health concerns in the fall semester before and during the workshop implementation was collected.

Results: University students (n=18) participated in the bystander intervention workshop. A 38% increase in the utilization of campus mental health resources by BIPOC students was reported during the fall semester when the workshop was implemented. An overall improvement was observed by participants on the GBS.

Conclusion/Implications for practice: Both the primary and secondary aims of the intervention were achieved. The bystander intervention model/workshop, coupled with increased engagement from the university community, has the potential to positively influence the accessibility and utilization of mental health resources available on campus by BIPOC students.

Age Friendly Care in a Rural Community Health Center

Xavier Giddings DNPc, BSN, RN
Faculty Project Advisor: Mary Val Palumbo DNP, APRN, GNP-BC

Purpose: The Institute of Healthcare Improvement (IHI) along with the John A. Hartford Foundation partnered to promote an initiative that designates health centers as "Age Friendly Health Systems" (AFHS). These AFHS focus on providing care founded on the 4Ms (what matters, medication, mentation, and mobility).

Methods: At a rural community health center, annual wellness visits (AWVs) were reviewed retrospectively both prior to and following implementation of the 4Ms assessment. Staff received education and resources related to the 4Ms assessments and Age-Friendly Health Centers. Following the chart review, a comparative analysis for completion of each of the 4Ms assessments showed the health centers growth towards "age-friendly" care.

Results: Analysis of Annual Wellness Visits (n=101) showed an increase in the usage of new aspects of the 4Ms and consistent performance in areas already in practice. The 'What matters?' question improved by 35 percent, while the Mentation and Mobility assessments remained in high usage Medication follow up occurred consistently or more frequently for the eight high risk medications. Staff surveyed following implementation expressed ease of use and generalizability with using the 4Ms assessment.

Conclusions: Following implementation of the 4Ms assessment, a rural health center was able to make strides towards providing care that is "age friendly." This was the first steps towards designation as an "Age Friendly Health System" if the site is interested in pursuing this status. The self-reported ease of use and generalizability leaves room for the 4Ms assessment to be expanded to other rural health centers within the test sites network.

Implementing a Vaping Educational Toolkit within a Specialty Pediatric Population

Lauren Haskins, DNPc, RN, AE-C
Faculty Project Advisor: Teresa Cahill-Griffin, DNP, RN
Site Mentor: Keith Robinson, MD, FAAP

Purpose: The prevalence of vaping among American youth has increased in recent years, resulting in significant health implications. Vaping exposes adolescents to high concentrations of nicotine and other harmful chemicals, leading to potential long-term health risks, including respiratory and neurological damage. Vaping rates among Vermont youth remain high. This project aimed to implement evidence-based vaping educational materials and evaluate knowledge growth in a pediatric pulmonology clinic.

Methods: Evidence-based toolkit materials were compiled, and a survey was administered to assess pre- and post-toolkit knowledge amongst patients aged 12 and older. Access to age-appropriate quit resources were provided to patients.

Results: Surveys were completed (n=50), with an average age of 15, with a nearly equal gender split. The majority reported increased knowledge about vaping after interacting with the toolkit, with 98% identifying where to find quit resources. Respondents reported feeling more comfortable discussing vaping with friends and family post-intervention.

Conclusions: The vaping education toolkit effectively addressed knowledge gaps and increased awareness of cessation resources. Respondents demonstrated significant knowledge growth after engaging with the toolkit. Positive feedback from clinic providers underscores the value of integrating such interventions into specialty care settings. Integration of evidence-based vaping educational materials present an effective strategy to mitigate vaping-related health risks among youth. The positive outcomes emphasize the value of such interventions and highlight the necessity of proactive measures to address the escalating youth vaping rates. Continued dissemination of the toolkit can amplify vaping education and cessation initiatives, contributing to healthier outcomes for pediatric populations.

Promoting Advanced Care Planning (ACP) Discussion in Primary Care

Pamela Jacobs, DNP(c), BSN, RN, CCM
Faculty Project Advisor: Margaret Aitken, DNP, APRN & Jason Garbarino, DNP, RN, GERO-BC, CNL

Purpose: Advance care planning (ACP) encourages patients to consider their healthcare goals and communicate them with family and healthcare providers. The ACP process promotes patient-centered care and decision-making in accordance with the patient's goals and wishes. While about 50% of Americans adults have completed advance directives (AD), only about 7% having ACP discussions with their primary-care provider. The purpose of this project was to increase the number of ACP discussions initiated during a routine office visit with a primary care provider (PCP) by implementing a patient-centered intervention.

Methods: Patients meeting specific criteria were identified using a report created in the EHR. Eligible patients were mailed a letter describing the benefits of ACP. 8 of these patients also received a blank AD document. Two PDSA cycles were completing during the project and were used to evaluate and modify interventions.

Results: 68 unique patient charts were reviewed. Of these, 35 were eligible participants. During the project, 3 participants provided a previously completed AD, one participant completed an AD, and 3 participants were referred for future ACP discussion, accounting for 20% of eligible participants.

Conclusion: Preparing patients in advance of a scheduled appointment to consider an ACP discussion demonstrated a modest increase in referrals for future discussion. Patients should be encouraged to provide a copy of their pre-existing AD, if they have one. A referral process may improve ACP discussion rates.

Increasing Breast Cancer Screening Rates in Primary Care

Kayla Ciampa Zwicky, DNPc, RN
Faculty Project Advisor: Jean Pelski, PhD, APRN, NNP-BC

Purpose: Breast cancer is a leading cause of cancer-related death in women globally and is one of the most diagnosed cancers among women in Vermont. Early detection and intervention can significantly reduce morbidity and mortality rates associated with the disease. Professional organizations like the United States Preventive Services Task Force and the American College of Obstetricians and Gynecologists have developed clinical practice guidelines for breast cancer screening to improve patient outcomes. The Centers for Disease Control and Prevention has set a goal for 74% of women to meet these screening recommendations. However, screening rates among Vermont women are currently below this target. This Doctor of Nursing Practice quality improvement project aimed to increase breast cancer screening rates at a primary care clinic in Vermont.

Methods: An educational toolkit was developed based on the Health Belief Model theoretical framework, which was distributed to eligible participants. A script was developed to send in follow up to participants still overdue for screening. Screening rates were tracked through retrospective chart review in the clinic's electronic health record.

Results: After distributing the educational toolkit on Breast Care and Breast Cancer Screening, along with a follow-up script, there was an 11.8% increase in scheduled mammogram screenings. Clinic-wide, there was a 1% increase in screening mammograms.

Conclusions: These findings suggest that a multimodal approach to patient education, outreach, and follow-up can positively influence screening mammogram rates for women in this Vermont primary care clinic.

Improving Depression Screening in a Primary Care Office with an Evidence-Based Protocol

Ayako Kuki, DNPc, RN
Faculty Project Advisor: Margaret Aitken, DNP, APRN

Purpose: Depression is among the most common mental health conditions in the US and negatively impacts quality of life, co-morbid chronic conditions, and healthcare costs. Screening for depression in the adult population with a validated tool is recommended by the USPSTF and associated with improved rates of treatment, but screening rates remain low in many primary care settings. This project aimed to increase depression screening with the Patient Health Questionnaire-2 for adults at a primary care office by 15% over a six-week period through the implementation of a standardized protocol. A secondary aim was to increase adherence to best practice guidelines through the protocol and education for medical assistants.

Methods: A review of practice policy, a pre-intervention survey of medical assistants and providers, and determination of baseline screening rates via chart review was performed. A standard protocol was developed and implemented at the site. Post-intervention screening rates and survey responses were collected.

Results: Depression screening rates did not significantly improve post-intervention (31% vs 34%). Screening rates varied widely among providers and by visit type. Screening rates did steadily improve during the planning phase of this project and the overall screening rate for the year was double the previous year's rate (61% vs 30%).

Conclusions: The standardized protocol and educational session were not effective in immediately increasing screening rates or adherence to guidelines. Further quality improvement projects or research could investigate the impact of ongoing education and staff engagement on depression screening rates.

Improving Transition of Care Through Education and Prenatal Planning: A Quality Improvement Project

Ashley McLaren, DNPc, RN
Faculty Project Advisor: Dr. Holly Whitcomb, DNP, APRN, FNP-BC
Site Mentor: Dr. Brooke Ryba, DNP, APRN, WHNP-BC

Purpose: Maternal morbidity and mortality rates in the United States are on the rise, with half of maternal deaths occurring during the postpartum period. Poorly managed transitions of care, the movement of patients between healthcare settings, contribute significantly to adverse healthcare outcomes. The American College of Obstetricians and Gynecologists (ACOG) underscores the importance of collaborative care between obstetrics and primary care providers (PCPs) to optimize maternal health and ensure safe care transitions. PCPs are integral in managing chronic care conditions and having an established PCP prior to pregnancy is linked to increased attendance at postpartum care visits. Enhance transitions of care for birthing individuals through evidence-based education and prenatal planning.

Methods: An evidence-based educational flyer focusing on prenatal care planning and safe postpartum care transitions was developed and distributed to obstetrics providers and support staff. Understanding was assessed using a Likert-scale survey. Pre- and post-intervention data on documented PCPs in the electronic health record (EHR) and referrals to primary care were collected.

Results: Participant (n=11) understanding of prenatal planning recommendations increased by 52%. Identification of PCPs in the EHR improved by 16% with 113 of 612 pre-intervention visits and 111 of 600 post-intervention visits without documented PCPs.

Conclusion: Targeted educational interventions enhanced healthcare professionals' understanding of ACOG recommendations for transition of care planning and increased rates of documented PCPs in the EHR. Future interventions should be responsive to evolving challenges and emerging evidence in postpartum care, exploring innovative communication strategies and technologies to facilitate enhanced care coordination.

Standardizing Transitional Care Management in Primary Care

Anna Michelson, DNPc, RN
Faculty Project Advisor: Erin Leighton, DNP, APRN, FNP-BC
Site Mentor: Alison Bovee, MBA

Purpose: Transitional care management (TCM) refers to care delivered in the first 30 days following hospitalization during which an individual is discharged from the acute care setting to their home in the community. The primary purpose of this project was to develop and implement an evidence-based transition of care protocol in the primary care setting. The secondary purpose was to provide TCM resources and education for clinic staff. Primary care TCM encounters are reimbursed at a higher rate as they require additional non-face-to-face services than standard Evaluation/Management encounters. This project also explored the potential for increased clinic revenue through utilization of appropriate billing and coding for TCM.

Methods: A standardizable, evidence-based protocol was developed and implemented over a 3-month pilot phase. Independent review modules, in-clinic reference sheets with TCM practice guidelines, and new Epic templates were introduced to clinic staff. Epic admissions reports and chart review identified patient eligibility.

Results: In-network discharge reports in Epic were run three times weekly with set parameters to identify eligible individuals. These records (N=18) were then reviewed. Seven TCM visits were completed and billed. Six visits were assigned Evaluation/Management coding, however, three of these visits met the TCM coding criteria and were not billed as such. The seventh visit was appropriately assigned TCM coding. Eight participants were lost to follow-up.

Conclusions: Improving care coordination from hospital to home is possible. This pilot highlighted that stronger care coordination may require expanding the reserve of clinic nurses or licensed clinical staff eligible to complete TCM encounters.

Integrating a Toolkit to Increase Health Promotion Knowledge in a Rural School-Based Health Clinic

Anna Ramsey, DNPc, RN
DNP Project Advisor: Dr. Teresa Cahill-Griffin, DNP, RNC-OB
Site Advisor: Elsa Ingpen, DNP, FNP-C

Purpose: Preventative health education for children is critical for promoting lifelong health and reducing both illness burden and medical care costs. Rural students face barriers to healthcare including ability to pay, transportation, and workforce shortages. School-based health clinics (SBHCs) have increased rural healthcare access by providing students access to medical care while at school. While SBHCs are utilized primarily for acute concerns, the setting has the potential to be further utilized for preventative health education. This project sought to implement a health promotion toolkit in a rural Vermont SBHC and to assess both provider satisfaction and change in student perceived knowledge.

Methods: A health promotion toolkit was introduced to providers at a rural SBHC. Providers identified students 12 years of age and older who would benefit from teaching. Providers completed a pre-visit questionnaire with students before completing targeted health teaching. A post-visit questionnaire was completed to assess retained knowledge. Weekly questionnaires were completed by SBHC providers to assess their satisfaction.

Results: A health promotion toolkit was effectively implemented at a rural SBHC. Positive feedback was received from SBHC providers (n=3) and feedback to include students 8 years of age and older was used to drive an additional PDSA cycle. Student (n=13) perceived knowledge increased after the teaching.

Conclusion: The Nemours toolkit was well-liked by providers and proved to be effective at increasing student knowledge at this particular SBHC. Further utilization of health promotion toolkits and research in rural SBHCs is needed to demonstrate increased health education access in this population.

Improving Medication Review for Adult Patients 65+ in a Rural Emergency Department

Dennis Schut, DNPc, RN
Faculty Project Advisor: Margaret Aitken, DNP, APRN

Purpose: Medication management in the geriatric population is often complex due to polypharmacy, drug-drug interactions, and slower rates of drug metabolism as the body ages (ACEP, 2014). It can be difficult for emergency department (ED) staff to obtain an accurate medication list. It is imperative for ED providers to have an accurate medication list as the cause for the visit can often be medication related and new medications prescribed in the ED may interact with another home medication. This audit and feedback quality improvement project took place in a small, rural ED and was paired with the launch of a new EHR.

Methods: The project gathered ED medication review data on patients aged 65 and older over a two-month period, presented the baseline data, introduced a new protocol for medication review, and provided audit and feedback every 2 weeks over a 2-month period.

Results: The pre-intervention data showed an average of 3.7 medications missed per patient by the ED medication review. Following the intervention, this number dropped to 1.4 medications missed. After the first audit and feedback status update it dropped to 0.2 medications on average. The rate of medication review at bed side remained low around 42.7% throughout the post-intervention.

Conclusions: Audit and feedback proved effective in this setting for raising medication review accuracy. This has implications for improving patient safety and reducing adverse drug events. This project also supports that a small, rural ED is capable of meeting Geriatric ED Accreditation (GEDA) standards.

Optimizing Patient Outcomes in Individuals with Obesity Undergoing Joint Replacement

Alex Shepard, DNPc, RN
Faculty Project Advisor: Jennifer Laurent, PhD, DNP, APRN
Site Mentor: Dr. Blankstein, MD

Purpose: Obesity is a primary risk factor for osteoarthritis of the hips and knees, which over time may require total joint arthroplasty. There is an increasing use joint optimization programs to assist individuals with obesity to better qualify for surgery and limit potential post operative complications. Evaluation of a Joint Health Coaching Program (JHCP) to understand programmatic policies and procedures and identify barriers and facilitators to patient satisfaction of obese individuals.

Methods: The project manager worked with stakeholder to identify practice procedures. Patients were identified through the Joint Health Coach. A survey, including qualitative and quantitative data identified barriers, facilitators, and overall patient satisfaction was sent to 102 participants with obesity through the electronic health record (EHR) and by telephone. One cycle of the Plan-Do-Study-Act (PDSA) cycle was utilized and data analysis included descriptive statistics and thematic analysis.

Results: Twenty-six participants responded to the survey, yielding a response rate of 25.5%. Participants in the JHCP report high satisfaction with the JHCP. All participants have completed the JHCP. There was successful weight loss amongst 71% of participants (n=17). 52% (n=13) received TJA. Areas of improvement included more formalized structure and nutrition counseling. Barriers included a low response rate, predominance of female respondents, and limited referral source to the JHCP.

Conclusion: The JHCP appears to be successful in meeting goals of weight reduction pre-operatively, with high levels of patient satisfaction. Results suggest that more can be done to attain weight loss goals pre-operatively.

Blood Glucose Telemonitoring: Lessons Learned from a Quality Improvement Initiative

Jenna Smith, BS, DNPc, RN
Faculty Project Advisor: Jean Pelski, PhD, APRN, NNP-BC
Site Mentor: Kimberly Cowan, BA

Purpose: Uncontrolled diabetes contributes significantly to morbidity and mortality in Vermont. Patients with suboptimal glycemic control require ongoing blood glucose monitoring and timely titration of medications by a healthcare provider. Remote monitoring of blood glucose readings, or "telemonitoring," is associated with significant improvements in glycemic control, reducing risk for adverse outcomes and hospitalization. This project aimed to establish and evaluate a standardized workflow strategy for telemonitoring patients with suboptimal glycemic control at an outpatient endocrinology clinic associated with a major academic medical center in Vermont.

Methods: Participants included patients with type 1, type 2, or gestational diabetes. An order set for telemonitoring was integrated into the electronic health record, allowing providers to request remote blood glucose monitoring. A clinic workflow was devised to manage notifications.

Results: Ten staff members completed a satisfaction survey. Sixty-six percent found the order set easy to use and were satisfied with it, while 83% found it functional for clinic needs. Similarly, 83% regarded the workflow as straightforward, logical, and functional, but only 50% were satisfied with it.

Conclusion/Implications: Technological difficulties and delays led to a lack of blood glucose data for review. Future steps should include evaluating blood glucose trends after telemonitoring, simplifying the telemonitoring ordering process, and providing additional staff training. The dissemination of quality improvement initiatives enriches the literature and informs future projects aiming to implement and sustain meaningful changes in healthcare delivery.

Improving Pediatric Obesity Management in Rural Primary Care

Alyssa Tonks, DNPc, RN
Faculty Project Advisor: Rebecca Nagle, DNP, PNP-BC, RN

Purpose: Childhood obesity is a major health concern, especially in rural US regions, where children are 26% more likely to develop obesity in comparison to their urban peers. Despite primary care clinicians' pivotal role in addressing obesity, poor adherence to clinical practice guidelines has impeded effective management. This project addressed this gap by implementing an education module to enhance providers' understanding and adherence to obesity-related clinical practice guidelines.

Methods: The educational module was implemented at a Federally Qualified Health Center in a rural north-eastern state. Electronic health record analysis assessed diagnosis accuracy (patients correctly assigned a Z68.54 diagnostic code if their BMI ≥ 95th percentile for age) and referral rates before and after the intervention. Post-intervention provider surveys were conducted to evaluate perceived effectiveness.

Results: Pre-intervention data (n= 242) revealed a 56% accuracy rate and a 20% referral rate, while post-intervention data (n=242) showed a 64% accuracy rate and a 29% referral rate. In both datasets, patients meeting BMI criteria for obesity but lacking a Z68.54 code were not referred to specialists. Providers (n=7) reported increased confidence and competence in pediatric obesity management.

Conclusions: The intervention increased provider adherence to clinical practice guidelines and resulted in an 8% increase in the accuracy of obesity diagnosis and an 9% rise in specialty care referrals. Data from provider surveys further underscored effectiveness. Future efforts should focus on widespread dissemination of the educational module and evaluation of long-term implications of follow-up care, specialty referrals, and innovative approaches to care.

Increasing Breast Cancer Screenings in the New American Population

Tuhina Venkatayogi, BS, MPH, DNPc, RN
Faculty Project Advisor: Erin Leighton, DNP, APRN, FNP-BC
University of Vermont College of Nursing

Abstract

Purpose: Breast cancer poses a significant health risk globally, with routine screenings pivotal for early detection. The New American population in Vermont face many barriers to accessing mammogram screenings and have a 0% participation rate in breast cancer screening, thus necessitating targeted interventions. The purpose of this project was to improve mammogram participation among New Americans by at least 15% by January 2024.

Methods: The intervention at a New American clinic included an educational infographic presented during initial health center visits, supplemented by tangible pamphlets. Patient understanding was assessed through teach-back questions. Appointment scheduling was facilitated during the visit, with reminder cards provided. The project's analytical methods involved descriptive statistics, utilizing demographic data (age, ethnicity, language, education) which identified potential disparities influencing screening behaviors.

Results: 83% of participants (n=6) proactively scheduled mammogram appointments, supported by reminder cards. Visual representations highlight demographic characteristics impacting screening engagement. The results of the study support the effectiveness of the tailored interventions.

Conclusions: The project underscored the effectiveness of targeted strategies to address healthcare disparities within New American communities. The proactive role of graphic educational materials was emphasized in empowering patients to engage actively in their healthcare decisions. Despite limitations related to clinic constraints, the project surpassed its primary aim. Implications for practice include adopting tailored interventions and comprehensive healthcare strategies for diverse populations, emphasizing patient empowerment, and increasing accessibility. Further studies should explore the scalability and sustainability of similar interventions in diverse healthcare settings.

Implementing an Obesity Prevention Toolkit for Overweight Adolescents in Pediatric Primary Care

Taylor Wells Auclair, BA, DNPc, RN
Faculty Project Advisor: Jennifer Laurent, Ph.D., APRN
Site Mentor: Amy Armstrong, RN

Purpose: More than 25% of Vermont high school students were considered overweight or obese in 2019. Several factors contribute to obesity including poor nutrition, reduced physical activity and excess screen time. Obesity in adolescence increases the risk for obesity in adulthood with early onset of many cardiometabolic health conditions. Objective: Implementation of an evidence-based toolkit to increase patient and family knowledge about healthy behaviors.

Methods: Adolescents with a BMI in the 85-95th percentile completed healthy behavior screenings prior to well visits. Primary care providers (PCP), guided by the screening, tailored implementation of the toolkit to educate patients and families on healthy behaviors. Adolescent knowledge was assessed using the teach back method. Patients, PCPs and nurses provided post-implementation feedback via surveys.

Results: A total of 34 adolescents completed the healthy behavior screenings, with 53% identifying a desire for change. 3 (8%) adolescents completed the post-survey, 100% reported receiving helpful information. 5 PCPs and 7 nurses completed the survey. 80% of PCPs reported they were better able to discuss healthy behaviors and would use the toolkit in future practice. 80% of the PCPs and 100% of the nurses felt that the toolkit improved quality of care. All PCPs reported that patients demonstrated increased healthy behavior knowledge.

Conclusion: The toolkit was acceptable, feasible and beneficial for discussing healthy behaviors during well visits. Clinicians reported an increase in care quality while patients indicated increased knowledge.

Improving Dementia Care: Establishing an Acuity Classification System

Carrie Weisheit DNPc, BSN, RN
Faculty Project Advisor: Mary Val Palumbo DNP, APRN, GNP-BC
Site Mentor: Dr. John Steele Taylor, MD

Purpose: To achieve the Healthy People 2030 goal of reducing preventable hospitalizations in older adults with dementia from 23.5% to 19.1%, this project implements the evidence-based UCLA Alzheimer's and Dementia Care acuity classification system at an academic medical center's memory program. The system will assist the dementia care specialist in improving dementia care quality and minimizing potentially preventable hospitalizations.

Methods: A retrospective chart review and clinician reassessment at patients' follow-up appointments were conducted over a six-month period utilizing a SMART phrase containing the acuity classification questions which categorized dementia patients as low (green), intermediate (yellow), or high (red) risk for hospitalization.

Results: After implementation, 64% (*n*=57) of initially classified patients were reevaluated, with 63% (36) reclassified as green and 37% (21) as yellow. Six patients were initially determined to be red, with three lost to follow up and three reassessed as yellow due to decreased emergency department visits and behavior changes. Yellow and red patients had more emergency department visits and falls, need increased supervision, and their caregivers' report higher stress and more safety concerns. Caregiver stress correlated with acuity, as 76% (16) of yellow patients' caregivers reported moderate to severe stress compared to 17% (6) for green patients.

Conclusions: This project provided baseline information for a memory program transitioning towards a more comprehensive dementia care model, but could benefit from extended data collection to further investigate its effects on potentially avoidable hospitalizations, investing in a designated dementia care specialist, and initiatives to reduce caregiver stress for future care improvement.

Charting the Path to National Recognition: A Medical-Surgical Microsystem Audit for Nurse Burnout

Hazel Adams MS, CNL
Faculty Project Advisor: Dr. Lili Martin, DNP, RN
Site Mentor: Dr. Betsy Hassan, DNP, RN, NEA-BC, NPD-BC

Purpose: Clinical nurse burnout poses significant challenges, impacting patient outcomes and staff retention. The American Medical Association's Joy in Medicine Program provides a framework for best practice to reduce burnout within the workplace. This project adapts its bronze level criteria to a Medical-Surgical setting, leveraging the Clinical Nurse Leader role to assess microsystem practices and collaborate with leadership.

Aims: The aims of this project were to conduct a unit audit for burnout; identify and provide recommendations to leadership which would align unit practices with Joy in Medicine standards; and assess leadership for knowledge and competency of burnout reduction strategies.

Methods: The nursing leadership team completed an audit of current practices around burnout reduction. Participants received a one-hour educational in-service to discuss audit findings, provided recommendations to align the unit with Joy in Medicine Bronze level criteria, and completed a composite survey evaluating knowledge and competency of burnout, personal experiences of professional burnout, and self-efficacy related to undertaking a burnout quality improvement project within 6-12 months of completion of this project.

Results: Knowledge of burnout increased from moderate to significant after the educational in- service and feelings of burnout within their work environment decreased. There were individual differences in self-rated self-efficacy scores, but all three participants had increased confidence to undertake a burnout-related QI project within 6 to 12 months.

Discussion: The Clinical Nurse Leader role can be effective in collaborating with nursing leadership to improve burnout reduction efforts within a clinical microsystem. Providing education and support to nursing leadership can improve feelings of self-efficacy and encourage change and adoption of best practices. Continuous assessment is needed to understand influencing factors for nurse burnout.