Closing the Knowledge Gap: Increasing Primary Care Provider Confidence in Ehlers-Danlos Syndrome and Hypermobility Spectrum Disorder

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Abstract

Patients with Ehlers-Danlos syndrome (EDS) and hypermobility spectrum disorder (HSD) often experience a prolonged "diagnostic odyssey" before receiving appropriate care. A significant barrier to timely diagnosis and treatment is the limited knowledge and confidence among healthcare practitioners, despite the availability of established assessment and diagnostic guidelines. This pilot project applied the Mountain Model for evidence-based practice quality improvement (EBPQI) framework using the FADE (Focus, Analyze, Develop, Execute, Evaluate) Model for quality improvement in an independent family medicine practice. The intervention aimed to enhance primary care provider confidence in diagnosing EDS and HSD. To assess baseline knowledge and confidence levels, providers were surveyed using REDCap. Subsequently, a tailored educational presentation with supporting resources was developed and delivered in a hybrid-remote live session. Following the intervention, a post-survey was administered to evaluate the session's effectiveness. Nine practitioners responded to the initial survey, and five participated in the post-education survey. Results indicated that knowledge, measured on a 5-point Likert scale, increased by 116%, improving from a mean score of 1.44 to 3.12. Mean confidence in diagnosing EDS and HSD, developing treatment plans, and providing care increased by 77.9%, rising from 1.35 to 2.4. Furthermore, mean confidence in applying the hypermobile EDS diagnostic criteria improved by 131.4% for criterion 1 (generalized joint hypermobility assessment, from 1.56 to 3.60), 77.0% for criterion 2 (manifestations of a connective tissue disorder and musculoskeletal complications, from 1.83 to 3.24) and by 65.5% for criterion 3 (exclusion of alternative diagnoses, from 1.75 to 3.04). These findings suggest that a one-hour educational intervention can significantly enhance primary care providers' knowledge and confidence in diagnosing and managing EDS and HSD. Future research should explore the impact of this intervention on a larger sample of primary care providers to assess its broader applicability and long-term outcomes.

Implementing Universal Anxiety Screening for Children Ages 8-18 Years Old at a Pediatric Primary Care Practice

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Abstract

The prevalence of anxiety symptoms in children has been rising, driven by current social, cultural, and global factors. In response to this growing trend, the United States Preventive Services Task Force recommends universal anxiety screening for all children ages 8-18 years old without a prior diagnosis of anxiety. Despite this recommendation, and an increase in anxiety and depression rates among Vermont children (from 13.7% in 2016 to 19.2% in 2020), universal

anxiety screening remains underutilized in one pediatric outpatient practice. This quality improvement project aimed to increase universal anxiety screening rates to 80% during well-child visits across three pediatric outpatient clinics in Vermont by December 2024. A sequential screening process was implemented, beginning with primary psychosocial screening using the PSC-17. This was followed by secondary targeted anxiety screening using the SCARED or GAD-7 (depending on age) if patients screened positive for internalizing symptoms on the primary screen. A positive secondary screen prompted follow-up with a provider. Primary screening rates ranged from 66%-85%, with improvements observed across all clinics during the second Plan-Do-Study-Act (PDSA) cycle. Secondary screening rates ranged from 0%-33%, with two out of three clinics showing improvements. Documentation of follow-up plans varied from 50%-100%, also improving in all clinics by the second PDSA cycle. The percentage of positive primary screens ranged from 4%-13%, aligning closely with the national anxiety prevalence rate of 10%. These findings suggest that implementing a sequential screening process for universal anxiety screening is both feasible and beneficial in a pediatric outpatient setting.

Utilizing AI to Generate Culinary Medicine Resources for Migrant Workers with Chronic Diseases

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Abstract

Latin American migrant workers in Vermont face a paradox: they perform essential labor to sustain the state's agricultural economy yet struggle with food insecurity and barriers to healthcare. This quality improvement (QI) project addressed the intersection of social determinants of health (SDOH), chronic disease disparities, and culturally relevant interventions among this population. Latin Americans in the US experience disproportionate rates of chronic diseases including, Type 2 Diabetes Mellitus (T2DM), hypertension (HTN), and dyslipidemia. This is compounded by economic instability, limited healthcare access, and language barriers. This QI project aimed to improve chronic disease self-management among Latin American migrant workers in Vermont. This will be done through culinary medicine (CM), which is an evidence based intervention that uses nutritional science with traditional medicine. Four participants, all Mexican identifying, completed pre- and post-surveys, with 100% preference of Spanish-language materials. Chronic conditions reported by the participants are as follows: T2DM, HTN, liver disease, and high cholesterol. Pre-survey results: All participants rated highly on the 5-point Likert scale regarding knowledge of nutritional recommendations for chronic disease management. Post-intervention survey had equivocal results regarding their knowledge of nutritional recommendations. However, 100% of the participants stated they felt supported with the materials provided. Findings suggest importance of culturally tailored health interventions for health promotion among Vermont migrant workers.

Improving Health Outcomes for People with Chronic Obstructive Pulmonary Disease

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Abstract

Chronic Obstructive Pulmonary Disease (COPD) is the fourth leading cause of death in the United States. COPD accounts for $24 billion in annual healthcare costs, with $900 million spent on emergency department (ED) visits. Inadequate health literacy and disorganized care coordination exacerbate ED utilization and hospitalizations. At a primary care clinic in northern Vermont, no standardized educational resources or care coordination guidelines existed for patients with COPD. This project aimed to improve care coordination and health education. Participants (n=29) received health education toolkits and subsequent calls to assess knowledge around their health condition and needs. Eleven (n=11) participants choose to review the health education toolkit. Chart reviews indicated 21% of participants experienced an ED visit or hospitalization in the past year. Despite 24% of participants continuing to smoke, only 3% of these smokers had recent acute care utilization. Education desired included home action plans (100%), home monitoring equipment (91%), and breathing techniques (64%). Following intervention, 82% expressed intent to use the acute action plan at home. Interventions improved participant engagement and knowledge, fostering self-management strategies. Future initiatives should explore long-term impacts on acute care utilization and expand standardized care pathways for patients with COPD.

Elevating LGBTQ+ Healthcare: Improving Data Collection in Primary Care

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Abstract

LGBTQ+ individuals experience significant health disparities due to stigma, bias, and inconsistent data collection on Sexual Orientation and Gender Identity (SOGI). Despite national recommendations, many healthcare providers lack the tools and confidence to routinely collect SOGI data. This quality improvement project aimed to standardize SOGI data collection and enhance provider comfort in a Vermont-based adult primary care practice. Specific aims included achieving sustained utilization of a SOGI SmartForm and increasing provider comfort in collecting SOGI data by 20%. Using Everett Rogers' Diffusion of Innovation theory as a guiding framework, this initiative integrated an evidence-based SOGI SmartForm into the electronic health record (EHR), provided targeted provider education, and implemented workflow modifications. Retrospective chart reviews assessed SOGI data completeness, while pre-/post-surveys evaluated changes in provider comfort and perceptions. Data analysis included descriptive statistics, run charts, and thematic analysis of open-ended survey responses. Retrospective chart reviews showed an upward trend in SOGI data completeness across several fields, including gender identity and sexual orientation. Provider surveys revealed a 17.5% increase in comfort with SOGI data collection and a 14.3% increase in its perceived importance. Barriers included time constraints and unfamiliar workflows, but provider education and stakeholder engagement were key facilitators of success. Standardized SOGI data collection fosters culturally responsive care and reduces LGBTQ+ health disparities. Sustained education,

workflow optimization, and patient engagement are critical for long-term adoption. Future studies should evaluate the broader impact on patient outcomes and health equity.

Optimizing Headache Management in Primary Care: An Evidence-Based Quality Improvement Plan

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Abstract

Chronic headache disorders are highly prevalent in primary care, yet underdiagnosed and undertreated. Effective management, including early use of preventative and cost-effective treatment, improves outcomes and reduces financial burden. The absence of headache management tools and decreased confidence put primary care providers at risk for ordering premature neurology referrals, without practicing to their full scope and contributing to a significant practice gap in headache medicine. The purpose of this quality improvement (QI) project was to improve utilization of evidence-based practice (EBP) materials for complex headaches in a student health primary care clinic in New England. A secondary aim focused on improving provider confidence in the management of complex headache disorders. A one-hour educational session was held using a slide deck provided by the American Headache Society's "first contact" initiative for primary care providers. An electronic health record (EHR) template was updated to include EBP features, and prescribing guides were distributed. Pre- and post-intervention surveys were conducted to evaluate perceived effectiveness. A retrospective chart review was performed 12 weeks post-intervention. Providers reported 15 percent increase in documenting headache frequency, 6.5 percent increase in lifestyle counseling, and 30 percent boost in confidence in managing complex headache disorders. Template usage was 51 percent for all headache visits during the 12-week period. Practice updates and prescribing tools improved provider confidence and perception of EBP adherence. Template usage increased documentation rates, suggesting that EHR prompting may improve outcomes. Future research on integrating multifactorial approaches into education models for primary care is needed to assess the impact of ongoing headache management QI efforts.

Developing a Protocol and Educational Program for Pediatric Lead Screening in a Small Rural Vermont Family Medicine Facility

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Abstract

The Vermont Department of Health (VDH) mandates that all children be tested for lead at 12 months, 24 months, and between three to six years of age, if testing has not been done previously. The project site required enhancements to comply with these guidelines and at the time of this project, did not have a formal protocol for performing lead screening, an aid for ordering within the practice electronic health record, or formal training for all staff on the topic of lead screening. The project's purpose is to increase lead screening rates at the project site to comply with VDH standards. The primary intervention involved a protocol change by adding a visual cue in the clinic's electronic health record in the form of a checkbox to prompt lead screening ordering during well-child visits. The secondary intervention focused on enhancing staff knowledge, confidence, and awareness about lead screening guidelines through an education session, assessed via a pre-and post-education survey. Throughout the study period, the checkbox was utilized, achieving a 58.33% usage rate, an improvement from pre-intervention. Additionally, there was a marked increase in awareness of Vermont's legal requirements and VDH standards for lead screening in the post education sessions. Post-implementation surveys revealed a significant increase in provider confidence regarding lead screening, with all providers feeling confident or very confident. All staff found the educational session valuable and reported it enhanced their knowledge and confidence. This project demonstrated the potential for a protocol change with electronic health record integration and staff education sessions to improve lead screening adherence and foster improved health equity.

Improving Primary Care Clinic Screening for Substance Use Disorder

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Abstract

Substance Use Disorder (SUD) is among the top ten causes of preventable death in the United States and causes health and social complications. Screening for SUD is the first step towards treatment since screening identifies the disorder, yet barriers to screening result in unrecognized and untreated SUD. This quality improvement project established baseline data on the prevalence of SUD within a local Vermont primary care clinic's patient population. The project also sought to assess current provider screening practices and provide patients with access to local SUD resources. The CAGE-AID screening tool, a validated instrument for identifying individuals with or at risk for SUD, was utilized for this project. Patients voluntarily and anonymously completed the CAGE-AID screening tool, providing 'yes' or 'no' answers to four questions surrounding substance use. If patients answered 'yes' to any of the four questions, this indicated a positive screen. A total of 25 screenings were completed. Results indicated that 40% of patients could screen positive for current SUD or an increased risk for development of SUD. Local SUD resources were provided, with 52% of patients taking the resource page, highlighting patient interest. The findings highlight the need for consistent SUD screening in primary care settings and underscore the importance of readily available resources for patients. Further research is recommended to explore strategies for improving patient participation in screening programs and evaluating the long-term impact of resource utilization.

Improving the Collection of a Sexual Health History by Providers in College Health

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Abstract

This quality improvement project aimed to standardize the process of taking sexual health histories in a college student health center to enhance patient care, improve early detection, and empower patients in discussions about their sexual health. Baseline data was gathered from a Spring 2024 audit to understand the volume of sexual health-related visits. A standardized sexual health history questionnaire was introduced and distributed during qualifying visits. Providers' feedback was collected through pre- and post-surveys to assess the effectiveness of the intervention, while the number of completed questionnaires was tracked to evaluate implementation success. During the Fall 2024 semester, 73 qualifying patient visits were recorded, with 16 questionnaires completed (21.9%). All patients who completed the questionnaire found it helpful in guiding their care. Pre-survey results indicated strong provider support for the initiative, and post-survey results revealed significant improvement in the standardization of practice, with providers reporting increased confidence in using the questionnaire. While challenges such as inconsistent distribution and variability in provider adherence were encountered, the intervention demonstrated positive outcomes, including high satisfaction among patients and providers. These findings suggest that the standardized sexual health history questionnaire may improve care quality and efficiency. However, further research and broader implementation are needed to address the limitations and optimize the process. This project provides a successful model for standardizing sexual health history collection in college health. Future efforts should focus on addressing the challenges encountered, ensuring consistent implementation, and expanding the scope of the project to further improve sexual health care delivery.

Implementing a Clinical Screening and Decision Support Tool to Improve Vaping Screening in Adolescent Patients

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Abstract

Adolescent vaping is a growing public health concern, contributing to high rates of nicotine and cannabis use among youth. Despite substantial health risks conferred by vaping, screening remains inconsistent in primary care, leading to missed opportunities for early intervention. This quality improvement (QI) project aimed to enhance adolescent vaping screening by implementing a Screening to Brief Intervention (S2BI) Smart Phrase in the electronic health record (EHR) at a family medicine clinic. The objective was to improve screening rates by 20% over a 12-week period and increase provider knowledge, confidence, and comfort in using the S2BI tool. The primary intervention was to use the S2BI Smart Phrase in adolescent well-visits. The secondary intervention was a provider education presentation on use of the S2BI tool and broader vaping trends. Screening rates, interventions, and referrals to treatment were measured as outcome indicators. Process measures included provider knowledge, confidence, and comfort, assessed through pre- and post-intervention surveys. Findings showed the S2BI Smart Phrase substantially improved adolescent vaping screening rates, with screening completed in 56.67% of well-visits, compared to only 16.67% using the standard EHR screening procedure.

Additionally, provider knowledge, confidence, and comfort in using the S2BI tool showed improvements. Findings from this project underscore the importance of structured screening and provider education in addressing adolescent vaping. Future initiatives should focus on refining workflows, integrating vaping-specific phrasing into existing frameworks, and expanding the use of validated screening tools across broader patient populations to enhance vaping screening.

Education for Limited English Proficiency Parents to Enhance Student Influenza Vaccination Rates

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Abstract

Influenza is a significant public health concern, particularly for pediatric populations at higher risk of severe illness and complications. Despite strong recommendations from health authorities, vaccination rates among children in the United States are declining, with notable decreases in Vermont. Vaccine hesitancy, especially among parents with limited English proficiency (LEP), contributes to this trend. This quality improvement (QI) project aimed to enhance accessibility to educational materials for parents with LEP to reduce vaccine hesitancy and improve influenza vaccination rates among school-aged students at a public school-based flu clinic in Vermont. An infographic containing evidence-based information on influenza vaccination benefits, safety, and efficacy was developed at a 5th-grade reading level and translated into Spanish and French. The infographic, along with reminders via emails, text messages, and automated voice calls, was distributed to parents before and during a school-based flu clinic. Vaccination data were collected during three clinic days in the fall of 2024, and a post-clinic parental survey evaluated the impact of the educational materials. In 2024, 153 students received the influenza vaccine at the school-based flu clinic, a 50% increase from 2023. Post-clinic surveys indicated that all participating parents found the infographic easy to understand, and the majority reported that it positively influenced their knowledge and decision to vaccinate their child. This project demonstrated that expanding access to multilingual educational materials may positively impact parental attitudes toward influenza vaccination and improve vaccination rates. These findings support implementing culturally and linguistically inclusive communication strategies to enhance vaccine uptake in school settings.

Improving Nurse Confidence and Venipuncture Competency in a Skilled Nursing Facility Through a Simulation-Based Training Program

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Most residents living in a Skilled Nursing Facility (SNF) require phlebotomy at least once every two months or more frequently. Many nursing schools do not teach venipuncture skills as part of their curriculum, so nurses learn through their organization’s training program, if it is offered. This leads to decreased confidence and increased risk of unsuccessful venipuncture attempts. Increase nurse-reported confidence levels in performing venipuncture to 20% above baseline and achieve successful venipuncture competency in 50% of nursing staff in a SNF.

Methods. Nurses were surveyed immediately before venipuncture education to assess baseline knowledge and confidence levels using WHO guidelines and a confidence questionnaire. Nurses received a three-hour training on venipuncture using didactic and experiential learning with simulation aids and were surveyed immediately afterwards. Nurses achieved competency in accordance with facility guidelines and were surveyed again one month later. Seven nurses participated in the education. 53.6% of all nurses in the SNF achieved competency in venipuncture by the end of this training. The mean baseline confidence level was 42.9% and increased to 74.3% immediately following training. Mean confidence levels at one-month follow up were 71.4%, however this decrease was not statistically significant (p = 0.60365). The overall increase in venipuncture confidence levels over a one-month period was demonstrated to be statistically significant (p = 0.00824). Venipuncture knowledge increased in six out of ten categories from baseline at one month follow up. Providing comprehensive training using simulation aids significantly increases nurse confidence and knowledge in venipuncture.

Reducing Lethal Means Access Through Education and Safety Tools Distribution

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Abstract

Suicide is the second leading cause of death among individuals aged 10 to 24 in the U.S. Lethal means reduction is a key suicide prevention strategy that limits access to highly fatal methods. This project aimed to provide gun locks and medication lockboxes to at-risk patients aged 13 to 24 and to enhance provider confidence in counseling on lethal means access. Over 90 days, medication lockboxes and gun locks were distributed to a naturopathic and a psychiatric clinic. Providers received training and completed pre- and post-intervention surveys. Of the sixteen medication safety toolkits, six were distributed, while none of the sixteen gun safety toolkits were utilized. Distribution was primarily triggered by identifying life stressors. Initial surveys showed that providers were more comfortable discussing medication safety than firearm access. Post-intervention, naturopathic clinic provider comfort in discussing lethal means decreased. In contrast, psychiatric clinic providers reported either increased or unchanged comfort levels. Notably, 93% of psychiatric clinic providers had prior training in lethal means access, whereas none of the naturopathic clinic providers had. These findings emphasize the need for enhanced provider confidence in firearm safety discussions. It also shows the need for repeat counseling on lethal means access trainings to help improve provider comfort. Future interventions should prioritize distributing safety kits based on provider assessments of patients' mental states rather than relying solely on suicide screenings.

Optimizing Hyperglycemia Management of Type 2 Diabetes Through Dietary Counseling: Interprofessional Collaboration Among Graduate Healthcare Students

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Abstract

Type 2 Diabetes Mellitus (T2DM) affects 34.2–36.1 million Americans, leading to significant complications and healthcare costs. Dietary modification is a critical component of disease management, helping to prevent or slow progression, yet many healthcare providers lack confidence in counseling patients on nutrition. This project implemented an interprofessional education (IPE) event to enhance the confidence of graduate health professions students in providing Mediterranean diet-based dietary counseling for T2DM. The intervention included a self-paced didactic module and an interactive IPE event with case-based discussions and hands-on meal preparation emphasizing Mediterranean diet principles. Participants completed pre- and post-event surveys using a modified Clinical Skills Self-Efficacy Scale (CSES). Mean self-efficacy scores ranged between 50-143%, with the greatest gains in adapting dietary recommendations for patients with physical disabilities and addressing economic and cultural barriers. Participants rated the event highly for relevance (9.4/10) and instructional quality (9.6/10), reporting increased confidence in translating dietary counseling skills into clinical practice. This project highlights the importance of interprofessional, experiential learning in equipping future providers with the confidence to implement dietary counseling, a key strategy for preventing disease progression and improving patient outcomes. Integrating similar IPE experiences into graduate curricula may enhance providers' ability to offer effective, patient-centered nutrition guidance.

Enhancing Patient Education and Overcoming Barriers to Access: Optimizing Nutritional Support for Wound Healing

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Abstract

Older adults in the vascular surgery department face multiple obstacles in achieving optimal nutrition for wound healing. This project aimed to identify the most common barriers to proper nutrition in this patient population. A secondary goal was to provide nutritional education to improve dietary intake in individuals over 60 years old with venous insufficiency wounds. A screening survey was administered to patients in the vascular surgery department to assess barriers to proper nutrition. Providers distributed educational materials on optimal dietary intake for wound healing, along with information on food resources. The intervention was documented in the electronic health record using a dot phrase. Data were collected from twenty patients over 60 years of age with venous insufficiency wounds. The most prevalent barrier identified was a lack of education, followed by motivation, access, and cost. Transportation was not reported as a barrier. Providers implemented the educational intervention in only 16.7% of eligible visits, citing time constraints as the primary obstacle. Limited provider time during patient visits significantly impacts the delivery of nutritional education. Addressing this barrier could improve dietary habits and wound healing outcomes in older adults with venous insufficiency. Future efforts should focus on integrating efficient educational strategies within clinical workflows.

Improving Patient Adherence During the Healing of Foot Ulcers

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Site Mentor: Lara Stone, DPM

Abstract

Off-loading pressure is a technique used to treat a variety of chronic wounds including diabetic foot ulcers, pressure ulcers, and neuropathic ulcers. Orthopedic patient adherence to offloading treatment is essential to the success of the treatment. Because limited patient knowledge of offloading devices is a leading factor in non-adherence, educational interventions are effective at increasing adherence. The best approach involves the use of customized education tools, however, there currently are limited patient education materials available regarding off-loading devices. This quality improvement (QI) project aimed to evaluate barriers affecting adherence to offloading devices in patients of the Foot and Ankle Program within an Orthopedic clinic and develop resources and education tools to promote adherence. A standardized questionnaire was created to evaluate areas of need for education. Using these answers education materials were created. To evaluate the intervention, the same standardized questionnaire was given to patients after receiving education and adherence to offloading was compared pre- and post-intervention. Patients who received the education had improved adherence to offloading devices than compared to pre-education. This demonstrates that device specific education promotes patient adherence to off-loading devices. Implications for practice include that device specific education is beneficial for patients and should be focused on factors that can deter use. The factors include weather, appearance, comfort, driving, impact on work, impact on household duties, and impact on mobility.

Reducing Needle Fear in Pediatric Patients by Implementing an Outpatient "Poke Plan"

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Abstract

Fear of needles poses a significant challenge in pediatric healthcare, leading to distress and avoidance behaviors. This quality improvement (QI) project addressed needle fear at two Vermont pediatric primary care offices with the primary aim of decreasing anxiety in patients and caregivers during vaccination procedures by 10% and increasing satisfaction with vaccination protocols by 10% on a 10-point Likert Scale. The secondary aim was to increase the clinical staff's satisfaction with vaccine protocols level by 10%. Data was collected through patient, caregiver, and clinical staff surveys with comparison pre- and post-intervention. Personalized "Poke Plans" were given to caregivers of 20 patients, aged 2 to 15 months, where distraction and reward preferences could be chosen. Furthermore, age-appropriate educational materials on vaccines were mailed to caregivers one week before scheduled well-child visits. The primary aim was achieved with a 22.1% reduction in anxiety ratings and a 11.1% increase in satisfaction ratings for caregivers. The secondary aim of improving clinical staff satisfaction with vaccination was not met, rather satisfaction decreased by 11.5%. The findings suggest that personalized "Poke Plans" effectively reduced anxiety and distress in pediatric patients and caregivers during vaccination procedures. The decreased staff satisfaction rating may be attributed to the perceived increased time and effort required to implement the "Poke Plans". The

interventions demonstrated potential as valuable tools for reducing needle fear in pediatric patients. Future projects should consider a larger and more diverse sample size, including older pediatric patients, and explore strategies to enhance staff satisfaction while preserving intervention effectiveness.

Conversational AI to Improve Chronic Pain and Comorbid Conditions

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Abstract

Chronic pain management has proven to be a complex disease to treat within the realm of primary care. This necessitates the introduction of an innovative strategy that can bridge the gap between our patients' needs and the available resources through evidenced-based practice. The implementation of this Doctor of Nursing Practice (DNP) quality improvement project was centered around the use of a cognitive behavioral therapy (CBT) based intervention facilitated through an artificial intelligence (AI) enhanced mobile chatbot application, Wysa, to address the concomitant biopsychosocial comorbidities associated with chronic pain in the adult population. This project aimed to increase Pain, Enjoyment of Life and General Activity (PEG) scores by 15%, whilst concurrently aiming for associated reductions in Generalized Anxiety Disorder 7-item (GAD-7) and Patient Health Questionnaire-9 (PHQ-9) scores by April of 2025. Anchored in Dorothea Orem's self-care deficit theory, the implementation of this quality improvement project embraced a comprehensive biopsychosocial approach to chronic pain management within primary care. Implementation entailed patient recruitment, enrollment and administration of baseline and follow-up questionnaires through an 8-week Wysa-guided chronic pain focused CBT delivery program from 09/2024-12/2024. While limited by participant recruitment and retention, this intervention successfully achieved its aim of yielding clinically significant reductions in PEG, PHQ-9 and GAD-7 scores, with results exceeding the targeted 15% improvement threshold. Ethical and legal considerations were taken throughout this quality improvement project to uphold the tenets of patient autonomy, data privacy, and the patient-provider relationship. This study highlights the potential of AI-enabled CBT interventions as a scalable and accessible method for chronic pain management in primary care.

Sense of Belonging and Wellbeing Curriculum for First Year Nursing Students

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Abstract

Transitioning to college often presents significant challenges for first-year baccalaureate nursing students, negatively impacting their sense of belonging and wellbeing. Fostering a sense of belonging is vital for academic success, persistence, professional development, and overall student wellness. However, limited formal opportunities for collaboration, teambuilding, and peer engagement contribute to feelings of disconnection amongst first-year nursing students,

impacting students' sense of belonging. The purpose of this project was to develop an evidence-based curriculum that fosters a sense of belonging and wellbeing (SBWC) for first-year baccalaureate nursing students at a University in the Northeast and assess its impact on students' sense of belonging and wellbeing. The curriculum integrated evidence-based interventions, that enhanced sense of belonging and wellbeing through activities such as icebreakers, physical activity, and teambuilding exercises. 147 first year nursing students were eligible to participate. A modified University Belonging Questionnaire (mUBQ) summative mean initial score of 83% increased to 85% by week nine of the semester. The Post-Intervention Mini Surveys provided valuable student feedback to inform three Plan-Do-Study-Act (PDSA) cycles. Small group activities and meet the faculty day were the highest-rated activities amongst survey respondents (n= 90) that enhanced students' sense of belonging, 87.8% and 84.4% respectively. 96.7% of survey respondents (n= 90) indicated that participating in the curriculum was effective in improving their sense of belonging. Qualitative data was overall positive, and the developed curriculum effectively facilitated and maintained high levels of belonging. Further work may focus on refining the curriculum to further evaluate the long-term impacts of this SBWC and associated activities on four-year retention, as well as academic and professional development.

Identifying Barriers Among Rooming Staff and Providers to Improve Depression Screening in Primary Care

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Abstract

Universal depression screening is recommended for all individuals aged 12 years and older, as the absence of screening is associated with adverse outcomes. Despite this recommendation, the rates of screening in primary care settings remain suboptimal. The global aim of this project was to increase the annual depression screening rates among individuals aged 18 and older at a primary care clinic in Vermont, aiming to achieve a target rate of 70% in accordance with the Vermont All-Payer Model. The primary aim was to identify barriers encountered by rooming staff and providers regarding the use of the existing depression screening protocol. The secondary aim was to improve depression screening rates by applying tailored interventions that addressed the identified barriers. To help identify the barriers faced, the awareness, frequency of use, and experience related to each phase of the screening protocol, as well as the perceived barriers, were evaluated through a survey. Identified barriers included workflow inefficiencies, challenges with documentation, and patient resistance. Two Plan-Do-Study-Act (PDSA) cycles were employed to introduce workflow modifications, provide enhanced education for rooming staff and providers, optimize pre-visit planning, and improve electronic health record (EHR) documentation practices. This quality improvement initiative demonstrated significant progress in completing depression screenings for patients during their annual visits. However, overall, there was no improvement in screenings completed across all visits. The data suggests that identified barriers and targeted interventions improved screening rates during annual visits but did not meet the project's target goal of 70% for all visits. Future efforts should concentrate on screening for all types of visits, pre-visit planning, and telehealth visits.

“It feels better without one on”: The Condom Use Resistance Screening Tool to Increase Stealthing Awareness

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Abstract

Non-consensual condom removal (NCCR), commonly known as stealthing, occurs when a condom is removed during intercourse without consent. It is increasingly recognized as a form of sexual assault and intimate partner violence by researchers. Research indicates that 7.9% to 43% of women and 5% to 19% of men who have sex with men experience NCCR (Davis et al., 2024). Implementing the Condom Use Resistance (CUR) screening tool aims to reduce NCCR at the clinic, establish baseline data, and enhance healthcare staff awareness by Fall 2024. The CUR tool was administered to patients while they waited at the dispensary window, accompanied by educational flyers, pamphlets, and brief informational sessions. Two months later, it was readministered to assess its impact. Surveys measured patient satisfaction and staff confidence in addressing NCCR. Findings revealed that 22% of clients had experienced NCCR, while 3% admitted to perpetrating it. Women reported higher rates of victimization, and discrepancies between self-reported perpetration and victimization highlighted potential societal biases in reporting. Following the intervention, 73% of clients recognized NCCR as a critical health issue, and 76% felt comfortable seeking support. Staff confidence in addressing NCCR increased without disrupting workflow. Although NCCR rates remained unchanged, the study successfully established baseline data and improved provider awareness. Future efforts should integrate NCCR education into routine healthcare training, promote early consent education, and develop trauma-informed care protocols to better support affected individuals.

Implementing an Intimate Partner Violence Screening Tool in an Outpatient Clinic

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Abstract

Intimate partner violence (IPV) is a significant public health concern, particularly among populations with substance use disorder. Despite evidence-based recommendations, systematic IPV screening is often absent in outpatient settings. This project sought to address this gap within a Vermont outpatient opioid treatment clinic. This QI project aimed to implement the E-HITS screening tool, improve provider preparedness to address positive screens, and assist the clinic in integrating a trauma-informed care training module to enhance clinician support of IPV survivors. The RE-AIM framework was utilized to promote the systematic implementation and evaluation of the project’s interventions. The E-HITS tool was integrated into intake workflows in three PDSA cycles over a six-week period. Provider education included an in-service training session and the introduction of an IPV toolkit. Screening rates, IPV detection, and provider knowledge and confidence were measured before and after implementation. Eleven clients were screened during the intervention period, four of which were positive and distributed equally

between genders, marking a significant increase in IPV identification compared to baseline estimations. A trauma-informed care training module was incorporated into the clinic's mandatory education. Provider confidence in addressing positive screens improved, though overall participation was limited. The project demonstrated the importance of universal IPV screening in a high-risk population, identifying IPV, and fostering trauma-informed care practices. Future efforts should address provider engagement, expand screening to all clients, and evaluate long-term outcomes to sustain and broaden the impact. This project underscores the role of nursing professionals in advancing evidence-based, patient-centered care of vulnerable populations.