

- WEHRHEIM SCHOOL OF NURSING -

25th Annual
*Scholarship
Symposium*

FRIDAY, APRIL 29TH, 2022



- MILLERSVILLE UNIVERSITY -



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FROM OUR CHAIR:

Welcome the 25th Annual Scholarship Symposium. As I reflect on the previous 20+ symposiums I've attended at Millersville University, I am amazed by the growth I've witnessed. Not only has the program grown in size, but the levels of scholarship and innovation have flourished. One of the most satisfying aspects of being a faculty member is seeing our students mature in their professional roles and witnessing their hard work come to fruition in the works you will see today.

This symposium is particularly special as we follow our celebration of scholarship with a celebration of the naming of the Wehrheim School of Nursing. We are thrilled you have chosen to celebrate with us.

Kelly A. Kuhns, PhD, RN, CNE

Chair and Professor
DNP Program Director
Department of Nursing



25th Annual Scholarship Symposium



MORNING

AGENDA

08:00
Welcome

08:15
DNP Cohort IV

10:15
Break!

10:30
MSN Podiums

Receive 2.75 Contact Hours for attending this session



MID-DAY

AGENDA

11:00

Lunch & MSN Posters

(feel free to enjoy lunch as you socialize and review the poster presentations)

11:30

Poster Group A

12:00

Poster Group B

Receive 1.0 Contact Hours for attending this session



AFTERNOON

AGENDA

12:30

Breakout Sessions:

MSN Podiums in MPR

DNP Cohort V in Room 118E

13:45

Break

14:00

Breakouts Resume

15:00

Closing and Awards

15:30

Reception and Dedication of the
Wehrheim School of Nursing

Receive 2.5 Contact Hours for attending this session

DNP COHORT IV

Interdisciplinary Collaboration in Addressing the
Needs of Students Diagnosed with
Pediatric Autoimmune Neuropsychiatric Disorders
Associated with Streptococcal Infections

Tiffany Boyd

Motivational Interviewing to Increase Adherence of
Therapies for Improved Management and Outcomes
Among Patients with Type 2 Diabetes Mellitus

Shelly Corle

Integrating Evidence Based Screening, Brief Intervention, and
Referral to Treatment (SBIRT) into a FNP Program

Change

Kelly Fetterhoff

Utilizing Prenatal Education and the Edinburgh Postnatal
Depression Scale to Improve the Detection of Depression
Among Healthcare Providers and Men in the

Postpartum Period

Taasha Guillemette

Implementation of an Educational Program and
School Nurse Procedure to Address Adolescent Vaping

Alicia Shelkin

Dietary Self-Monitoring for Weight Loss in Adults with Obesity

Heather Shuker

MORNING MSN PODIUMS

Greening Education: An Eco-Centric Education
Program to Promote Sustainable Values Among
Healthcare Personnel

Meredith Jester

The Importance of Gender-Affirming Practices in Primary
Care

Jessie Stefanescu

The Effect of Mobile Health Technology on
Chronic Disease Management and Recommendations
for the Nurse Practitioner

Bethany Han

MSN POSTER GROUP A

Advance Care Planning: The Need to Implement
Susan Baldwin

Provider-Patient Relationships and Medication Adherence:
An Evidence-Based Analysis
Augustine Cherbarwett

An Interdisciplinary Approach to
Fall Management in Clinical Settings
Navdeep Ghuman

Effectiveness of the Buzzy™ Device During
Needle Related Procedures in Children
Caleb Gish

Family Nurse Practitioner:
Primary Care of the Cardiac Patient
Cassandra Helwig

Health Coaching in Type 2 Diabetes:
An Evidence-Based Practice Analysis
Brad Hertzler

MSN POSTER GROUP A

Parental Vaccine Hesitancy: Overcoming Barriers
Kelsey Kimenhour

The Effect of Hand Hygiene on Eliminating
C. Diff From Caregivers' Hands
Beth Linnenbaugh

Barriers and Facilitators to Mental Health Collaboration in
the Primary Care Setting: A Literature Synthesis
Beth Progin

Striving for Retention of Provider Empathy: The Impact of the
COVID-19 Pandemic on Provider Burnout
Melissa Shroy

Morphine Equivalent Dosing:
A Helpful Tool to Keep Patients Safe
Meghan Crook

Slowing the Rate of Cognitive Impairment: Nutritional Versus
Pharmaceutical Interventions
Rebekah Troutman

MSN POSTER GROUP B

Providers' Roles in Addressing Vaccine Hesitancy
Andrey Bozhko

Serologic Testing for Diagnosis of Acute Lyme Disease
Courtney Greiner

Utilizing the Teach Back Method in Heart Failure Education
Erica Lehman

Weight Bias in Healthcare and its Impact on
Patient Outcomes:
How Provider's Internal Bias Can Lead to
Poor Quality of Care and Poor Patient Outcomes
Leigh McKissick

The Effect of Medical Cannabis Laws on
Opiate Related Deaths
Danielle Miller

First Responder Mental Health Screening and
Suicide Prevention Recommendations
for the Family Nurse Practitioner
Rachel Mowry

MSN POSTER GROUP B

Providing Medical Care to the Unsheltered Through Street
Medicine: A Case Study

Antonio Neve

Family Practice Provider's Influence Upon Healthcare

Access for the LGBTQ Population:

Practice Recommendations

Natalie Preston

Whole Foods Plant Based Diet to Decrease Hypercholes-
terolemia in Adults without Medication: Nurse Practitioner
Education Recommendations

Jeannette Stambaugh

Acupuncture as an Adjunct to SSRIs for
Symptom Management in Major Depressive Disorder:

A Literature Synthesis

Amy Vedder

Barriers to Implementing Physician Assisted Suicide as an
Intervention for Patients Who Are Terminally Ill

Leah Dawson

AFTERNOON MSN PODIUMS

Overcoming Mental Health Disparities in the African American Community: Interventions for the Nurse Practitioner

Tiara Brown

Palliative Care for the Nurse Practitioner:
Bridging the Gap in Education and
Identifying the Purpose of Our Role

Michelle Stojanovic

Evaluating the Use of an Escape Room to
Reinforce APA Style

Justin McFail

Antibiotics:
A New Standard for the Treatment of
Uncomplicated Acute Appendicitis

Jesse Thomaz

Non-pharmacological Modalities to
Improve Sleep-Related Outcomes

Jennifer Weaver

AFTERNOON MSN PODIUMS

How Family Nurse Practitioners Can Improve
Exercise Adherence in Patients with Heart Disease:

A Literature Review

Alex Toppin

Development and Implementation of a Postpartum Anxiety
Teaching Plan for Baccalaureate Nursing Students

Nicole Grissinger

Nursing Students' Perspectives on the Most Valued
Characteristics of Nursing Clinical Instructors:

An Integrative Review

Andrew Glindeman

Effective Screening Tools for Depression and Anxiety in Ad-
olescents in the Primary Care Setting: A Literature Synthesis

Bradly Wevodau

DNP COHORT V

Knowledge Retention Post Stroke

Naomi Acheampong

Impact of Improved Parental Coping and Success with
Pediatric Constipation Treatment

Lisa Ingalls

Adverse Childhood Trauma (ACES), Secondary Trauma,
and Suicide Prevention

Diane Klescewski

Integrating Psychosocial Interventions in
Office-Based Opioid Treatment Programs

James Ndungu

Implementing Screening for Child Sex Trafficking in
the Emergency Department

Jocelyn Ramirez Harrell

DNP COHORT V

Combatting Heart Disease in the Fire Service

Emily Serikstad

Burnout Among Acute Care Nurses

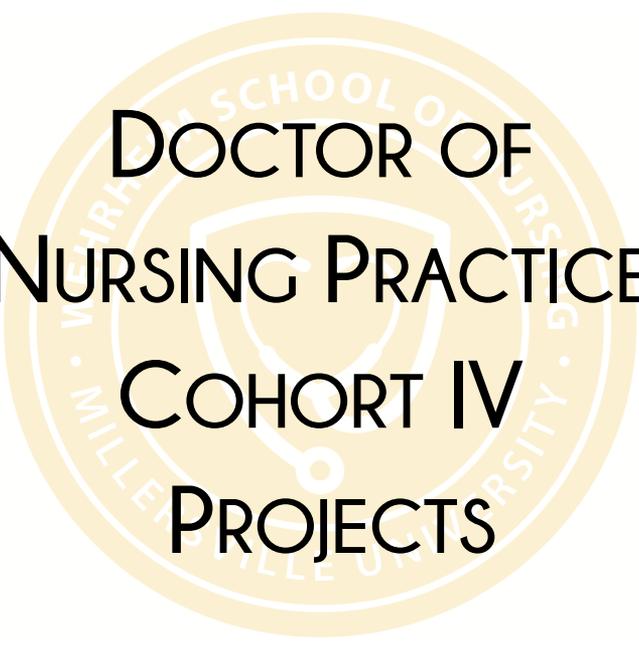
Kathryn Treaster

Prevention of Substance Use Disorder Among Health
Care Workers

Julia Wauchope

Improving Interdisciplinary Collaboration and Communication in Caring for Patients with Extracorporeal Membrane
Oxygenation (ECMO)

Kelly Williams

The background features a large, faint, circular seal of the University of Tennessee at Chattanooga School of Nursing. The seal contains a shield with a caduceus (a staff with two snakes) and the text "UNIVERSITY OF TENNESSEE AT CHATTANOOGA SCHOOL OF NURSING" around the perimeter.

**DOCTOR OF
NURSING PRACTICE
COHORT IV
PROJECTS**

Interdisciplinary Collaboration in Addressing the Needs of Students Diagnosed with Pediatric Autoimmune Neuropsychiatric Disorders Associated with Streptococcal Infections

Pediatric Autoimmune Neuropsychiatric Disorders Associated with Streptococcal Infections (PANDAS) is an autoimmune disorder associated with a sudden onset of OCD and/or tics and frequently diagnosed between the ages of 3 and puberty. This sudden onset of OCD and/or tics can lead to unwanted behaviors in school. Interdisciplinary collaboration between the school nurse, school counselors, psychologists, and principals are important to increasing referrals to the school nurse which can assist in further identification of the behaviors, referral to outside healthcare providers, and contributes to improved school outcomes. The primary purpose of this project was to provide education on PANDAS leading to an increase in referrals of students to the school nurse. A self-directed online educational intervention was employed for all district-wide school nurses, counselors, principals, and psychologists. A pretest-posttest design was utilized to assess knowledge related to PANDAS before, immediately after, and six-weeks after the educational intervention. A referral log was also implemented to track the number of referrals to the school nurse from school counselors, principals, and psychologists for behaviors consistent with PANDAS. Final sample size included 19 participants. A paired t test showed a statistically significant gain in pretest to posttest scores suggesting the education intervention was effective. In addition, initiation of a referral process led to an increase in school nurse referrals, supporting the value of school nursing and interdisciplinary collaboration.



Tiffany M. Boyd

MSN, BS, RN, CSN

Motivational Interviewing to Increase Adherence of Therapies for Improved Management and Outcomes Among Patients with Type 2 Diabetes Mellitus

Background: Type 2 diabetes mellitus (T2DM) is a complicated disease process that impacts millions of Americans yearly. Type 2 diabetes mellitus can cause severe, even fatal complications, including renal disease and failure, cardiac complications, neuropathy, and retinopathy. These complications reduce the quality of life and ultimately can result in death. Type 2 diabetes mellitus requires patient self-management to maintain glycemic control through diet, glucose monitoring, and medication regimens.

Method: A multimodal education program using the Diabetes Assessment form, educational materials, and motivational interviewing was provided to patients with a hemoglobin A1c greater than 7.0 by team members. The healthcare members were a healthcare providers (MD/CRNP's), licensed practical nurse, and medical secretary. Diabetes Assessment Form and hemoglobin A1c was completed pre-intervention and post-intervention. Motivational interview conversations were completed via telemed two and four weeks after consent was obtained. Eight of nine patients completed the project.

Results: Initial hemoglobin A1c ranged between 7.4 and 13.2. (SD 2.702). Overall, there was no statistically significant difference in hemoglobin A1c following the MI interventions. However, five patients (55%) did show a decrease of the hemoglobin A1c. Four of the eight patients demonstrated a clinically significant decrease in hemoglobin A1c (decrease of greater than 0.5%). Further, of those patients whose hemoglobin A1c, none increased by greater than 0.3%. Medication adherence has been found to be a consistent challenge for patients with diabetes. Data collected on the DAF pre-intervention demonstrated that 55% (n=4) were taking their medications daily as instructed, 33 % (n=3) were medicating most of the time and one patient took their medication sometimes.

Sustainability: Utilizing the DAF could be a cost effective, quality-based care initiative that will continue to optimize health as evidenced by outcomes and patient experience. Motivational interview is a valuable tool that could allow for improved communication between providers, nursing, and patients. Conversations between all parties can influence efficient, cost-effective changes in challenging situations. Further, quality care measures will continually be connected to pay out from CMS and utilizing the DAF will continue to support the quality initiatives suggested by CMS.

Conclusion: Motivational interviewing can be utilized by various health professionals and can be delivered within a short time. Improvement of health management in short-term intervals is a feasible goal; however, short-term variables are unreliable. Long-term implementation commitment would be a key element to success within the quality improvement study. Motivational interviewing can also decrease the cost of care long-term for the insurance companies and patients by reducing hospital stays, diminishing the need for multiple medications, and lost wages due to multiple appointments necessary to manage the disease. Education with MI in chronic disease management can forward healthcare into a positive intervention for all involved in the healthcare system.



Michelle Lee Corle

MSN, CRNP



Integrating Evidence Based Screening, Brief Intervention, and Referral to Treatment (SBIRT) into a FNP Program

Screening, Brief Intervention and Referral to Treatment (SBIRT) is a care model used to identify substance misuse, reduce use, and assist patients in getting the proper treatment. SBIRT has been extensively researched and shown to reduce dangerous use of alcohol and drugs, as well as creates a bridge between the general medical setting and specialized treatment centers. SBIRT began in the primary care setting and has been used to screen patients for risky substance use, provide a BI and refer patients to the appropriate treatment. Any point of contact with a healthcare professional trained in SBIRT could be used as an opportunity to get a patient into treatment. My evidence-based practice (EBP) project integrated SBIRT into the curriculum of a graduate level Family Nurse Practitioner (FNP) program in south-eastern PA via the D2L/Bright space online environment, to increase the students' knowledge of Substance Use Disorders (SUD) and their treatment and increase their motivation to work with patients with SUD. A pre-and post-test design was used to compare the mean (paired t-test) scores of the Shortened Version of Alcohol and Alcohol Problems Perception Questionnaire (the SAAPPQ), Drug and Drug Problems Perception Questionnaire (DDPPQ) and a ten-question knowledge test before and after the students completed the online education (n=67). All results were statistically significant. The education improved role adequacy, task self-esteem, motivation, role legitimacy, and satisfaction of FNP's when working with patients who abuse alcohol. Role adequacy, role legitimacy, role support, task specific self-esteem and job satisfaction were also increased in FNP's when working with patients who abuse drugs. There was also a statistically significant increase in knowledge following the education.



Kelly Anna Fetterhoff

MSN, CRNP, PHMNP-BC, CARN-AP

Utilizing Prenatal Education and the Edinburgh Postnatal Depression Scale to Improve the Detection of Depression Among Men in the Postpartum Period

Background: Transitioning into the role of the parent can be very stressful for both mother and father. In the past, maternal postpartum depression (MPPD) has received a lot of attention. Paternal postpartum depression (PPPD), in contrast, has been underreported, under-recognized, underdiagnosed, and undertreated and it is essential to acknowledge the potential risk for this depression. Because of the effect postpartum depression, whether it be maternal or paternal, can have on the father, mother, child, and family, healthcare providers need to assess both the mother and the father for postpartum depression.

Purpose: The utilization of a prenatal multimodal educational initiative concerning PPPD presented an opportunity to introduce the importance of assessment, detection, recognition, and treatment of this depression to parents and healthcare providers. Further, the Edinburgh Postnatal Depression Scale (EPDS), was utilized to screen and identify at-risk fathers. Early risk assessment and identification of PPPD allows fathers to receive treatment for their depression, which improves outcomes for the entire family and reduce healthcare costs.

Method: A multimodal education program using discourse, flyers, and posters was provided to 17 fathers between 32 weeks and 36 weeks of gestation, and paternal contact information was gathered by team members. Three months postpartum, a questionnaire was sent using *Qualtrics* to the participating fathers through their preferred contact method. A sample of fathers (n=5) responded to the questionnaire including the completion of the EPDS and other demographic information. A score of 10 or greater was considered indicative of PPPD. The questionnaire was available in English and Spanish.

Results: One of the five participants scored greater than 10, all fathers reported that receiving education enabled them to detect PPPD within them if present, and four out of five participants reported that the verbal presentation was the most effective and receptive mode of education. Cronbach's alpha coefficient revealed that the results were reliable at .737.

Sustainability/Conclusion: Developing and adopting guidelines for screening men during the postpartum period is vitally important. To successfully educate and screen men, it is imperative for healthcare providers and members of the obstetric team to educate themselves about PPPD. Understanding signs and symptoms of this depression provides the opportunity for earlier detection and treatment implementation, which decreases adverse outcomes for fathers, mothers, and children. Creating an inclusive environment allows fathers to become more involved in the perinatal process, improves the family dynamics, and improves paternal outcomes. Future projects can include same sex partnerships or marriages, adoptive parents, and foster families.



Taasha Guillemette

MSN, CRNP

Implementation of an Educational Program and School Nurse Procedure to Address Adolescent Vaping

Problem: Although traditional tobacco use among adolescents is declining across the United States (US), the popularity of electronic cigarette (e-cigarette) use is rising, posing a health risk to American youth. Public schools across the nation offer education on e-cigarette use in health classes, but adolescents continue to experiment with e-cigarettes.

Purpose: The purpose of this Doctor of Nursing (DNP) project was to increase school nurses' knowledge about e-cigarette use and resulting adverse health effects and to create a district-level nursing procedure for screening adolescents for nicotine addiction and making subsequent referral to appropriate resources.

Methods: The quality improvement project was developed to educate and initiate a change in practice by the implementation of a nursing procedure to screen adolescents for possible nicotine addiction and make subsequent referral to appropriate resources. The participants completed a pre-test prior to attending an educational presentation about adolescent e-cigarette use and a review of the nursing procedure to follow when adolescents were suspected of vaping. After the presentation, participants completed a post-test and a six week follow up test.

Results: The educational presentation increased school nurses' knowledge about adolescent e-cigarette use. School nurses also indicated a change in nursing practice through the implementation of a new nursing procedure for screening adolescents for nicotine addiction and making subsequent referral to appropriate resources.

Implications: This DNP scholarly project confirmed the need for school nurses to receive professional development education regarding e-cigarette use. Education on a variety of health-related topics may be beneficial for school nurses. Additionally, it identifies that up-to-date policies, including a policy on adolescent vaping, can result in positive practice changes.



Alicia Shelkin

MSN, AGPCNP

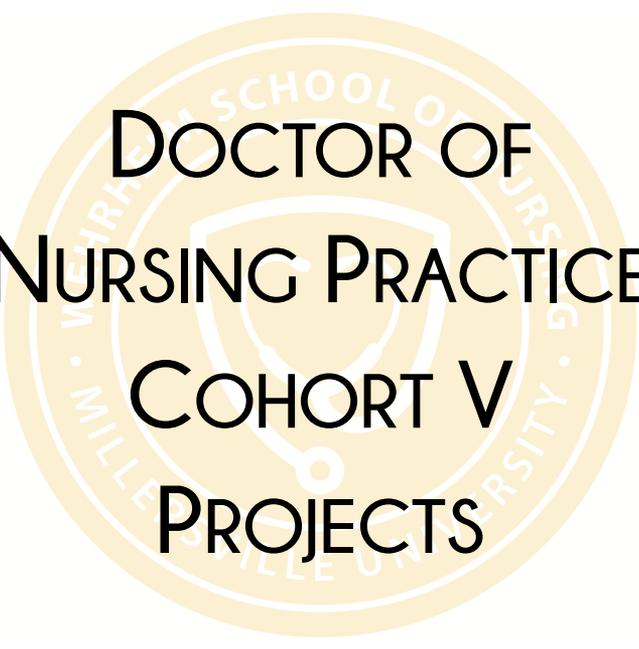
Dietary Self-Monitoring for Weight Loss in Adults with Obesity

Obesity is a global health problem that leads to a myriad of poor health consequences when untreated. Dietary self-monitoring is an evidence-based behavioral technique that can be used as part of a behavioral change strategy to elicit weight loss in adults who are obese (BMI of 30 or greater). Frequency and consistency of dietary tracking as well as adherence to dietary self-monitoring is associated with successful weight loss and weight maintenance. Therefore, this project was designed to translate this evidence into practice in a primary care setting in Eastern Pennsylvania.



Heather E. Shuker

MSN, CRNP

The seal of the College of Health Sciences, Virginia Polytechnic Institute and State University, is a circular emblem. It features a central shield with a caduceus (a staff with two snakes entwined around it) and a stethoscope draped over it. The shield is set against a background of a circular border containing the text "COLLEGE OF HEALTH SCIENCES" at the top and "VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY" at the bottom, separated by two small dots on each side.

**DOCTOR OF
NURSING PRACTICE
COHORT V
PROJECTS**

Improving Knowledge Retention Post-Stroke

Retaining stroke education after discharge is pertinent for recovery and gives patients insight of their risk factors, how to control their risk factors and how to recognize stroke symptoms to activate emergency medical systems should stroke symptoms occur, and therefore prevent strokes in the future. Studies that assessed knowledge retention among stroke patients revealed that stroke knowledge either did not improve or is not retained after hospital discharge despite education provided in the hospital and education provided post discharge (Kitzman, Hudson, Sylvia, Feltner, & Lovins, 2018, Olaiya et al. 2017). The purpose of this project is to implement a standardized approach to stroke patient education in the outpatient Advance Practice Nurse (APN) stroke clinic. The goal is to ensure stroke patients receive and retain stroke education tailored to their specific risk factors and how to activate emergency service should they have stroke symptoms.



Naomi Acheampong

CRNP

Impact of Improved Parental Coping and Success with Pediatric Constipation Treatment

Constipation is a common childhood health issue and accounts for multiple primary care and specialty care visits. Extensive research has been conducted assessing pharmacological and non-pharmacological interventions. Medications have been found to be effective treatment. Despite this knowledge being used to formulate treatment plans, children continue to be symptomatic.

An identified barrier to successful treatment is parental coping. Research shows that constipation treatment can be challenging for parents which can decrease compliance with the treatment regimen. The focus of this project will be to assess parental coping using a validated and reliable tool and then provide an education intervention. The goals will be to decrease parental stress and improve coping with chronic illness. Success will be measured by parental report of treatment satisfaction.



Lisa Ingalls

MSN, CRNP

Adverse Childhood Trauma (ACES), Secondary Trauma, and Suicide Prevention

Military service members have increased reported rates of adverse childhood events, particularly in women (Katon et al., 2015). Harris (2018) describes the correlation between adverse childhood events (ACES) and toxic stress and its negative health effects throughout adulthood. Increased ACE scores put military service members at a higher risk for suicide, Novotney (2020) reports 17 service members die by suicide daily, a higher rate than civilians. High ACES scores can be used to identify individuals at risk for poor mental health outcomes.

Secondary traumatic stress disorder (STS) also compounds post-traumatic stress disorder (PTSD) in service members and health care workers exposed to multiple traumatic experiences. Those affected by STS and PTSD can experience changes in personality, work performance, and maladaptive thinking (Coetzee & Klopper, 2010). Exposure to trauma, death, personal safety, and ethical dilemmas are impacting military health care professionals in their civilian life and work life (Chargulaf et al., 2019). Chargulaf et al. (2019) Researched the effects of military nurse's role of duality to provide compassionate care to the injured and need to accomplish the military mission creates an internal conflict and can create distrust and emotional impacts at the end of deployments. Burn out (BO) and compassion fatigue (CF) also are reported among a cross sectional study of 344 military deployed medical providers with 30% reporting symptoms, resulting in disengagement and feelings of distress (Chargulaf et al., 2019).

Resiliency strategies can be implemented to decrease poor health outcomes and suicide. The importance of resiliency and ability to process, discuss and connect with peers is key. By providing ACE's surveys to medical service members, leadership can identify the population with highest scores and provide critical support to those who are at risk and exposed to STSD.



Diane Klescewski

BSN, MSNE

Integrating Psychosocial Interventions in Office-Based Opioid Treatment Programs

The prevalence of opioid use disorder (OUD) in the United States is at a record high and continues to rise sharply. In the period ending April 2021, there was an estimated 100,306 drug overdose deaths in the United States. This was a 28.5% increase from the previous year. This increase in opioid-related overdoses has led to the expansion of office-based opioid treatment (OBOT) which has significantly improved access to safe and effective opioid dependence therapy in primary care offices. In addition to medication management, the American Society of Addiction Medicine (ASAM) recommends psychosocial interventions which have always been the standard of care in opiate treatment programs (OTP). There is limited literature on recommendations for specific psychosocial interventions in OBOT programs. There is therefore a need to gain a better understanding of the psychosocial interventions needed. This review will look at the retention rates of patient with a history of opioid use who are on medication-assisted treatment with no psychosocial counseling compared to a group of patients who have a brief counseling session with their provider at the scheduled medication appointment.



James Ndungu

MSN, CRNP

Implementing Screening for Child Sex Trafficking in the Emergency Department

With an estimated 199,000 children in the United States being sex trafficked per year, emergency departments are an important rescue entry point for victims of these crimes (Hardy, Compton, & McPhatter, 2013). In 2019, Pennsylvania was 4th highest in the United States for active criminal cases for human trafficking (Feehs & Currier Wheeler, 2021). Route 15 running through central Pennsylvania has been identified nationally as one of the busiest corridors for transport and solicitation of sex trafficking within the country due to its linking of the metropolitan areas of New York and Maryland. In addition to this, 42% of sex trafficking victims in 2020 were trafficked by their own family members and caregivers. Online recruiting of victims also continues to increase as more and more victims have access to social media and the internet (Polaris, 2022). Unfortunately, screening this patient population remains difficult as there are no widely implemented screening tools utilized across emergency departments, and healthcare provider education remains limited in this area. Review of literature identified important themes of staff education and knowledge, identification of risk factors and signs in victims, utilization of youth focused screening and mixed population screening of both adults and youth.

This project is quality improvement focused by implementing a six-item validated tool to screen for child sex trafficking within a level II trauma center with a medium sized emergency department that cares for both adult and pediatric patients. By screening patients for child sex trafficking, the aim is to identify the need for increased support and resources within the community for victims, families, and support persons.



Jocelyn Ramirez Harrell

MSN, CRNP, CPEN

Combatting Heart Disease in the Fire Service

Sudden cardiac death consists of approximately 45% of firefighter line-of-duty deaths according to the Centers for Disease Control and Prevention (2018). Firefighters are at an increased risk for a multitude of reasons including obesity, hypertension, hyperlipidemia, lack of a nutritional environment, interrupted sleep, lack of physical activity, exposures to toxins, and the nature of the line of work. Research has been performed in these areas to evaluate why the increased risk and what can be done to help reduce or eliminate risk. Four common themes emerged from the literature and included requiring mandatory annual medical screenings, enacting fitness initiatives, encouraging good nutrition, and supporting mental health. This project aims to help reduce the risk of adverse cardiac events in firefighters by implementing an educational program regarding the importance of obtaining an annual medical exam.



Emily Serikstad

MSN, CRNP

Burnout Among Acute Care Nurses

The number of registered nurses (RNs) in the United States (U.S.) is about three times higher than physicians and surgeons, making RNs extremely important to the healthcare system (Bakhamis et al., 2019). At least 1 out of every 10 nurses worldwide are suffering from high burnout according to a recent systemic review and meta-analysis across 49 countries (Woo et al., 2020). Janeway (2020) states that the prevalence of burnout in nurses in the United States ranges from 35 to 45%. Due to the high percentage of burnout, it has been referred to as a “parallel pandemic” (Howell, 2021). Nursing professionals are at considerable risk of burnout due to chronic stress at work (Dall’Ora et al., 2020). High levels of chronic stress may affect one’s mental, physical, and emotional health and may significantly impact the performance of the nursing professional (de Oliveira et al., 2021). Burnout may have a negative impact on the quality of care provided, leading to issues with patient safety and medical errors (de Oliveira et al., 2021, de Oliveira et al., 2019). According to Howell (2021), burnout is an epidemic affecting those working on the frontlines of patient care. For nurses, burnout reduces the ability to provide quality care. Every day, nurses face the dilemma of being human, empathetic, and caring, in a work environment with many responsibilities, inadequate staffing, long shifts, and sometimes less than desirable working conditions. Several studies have shown nurses present moderate to high levels of burnout syndrome (Adriaenssen et al., 2015). Since the onset of the pandemic, burnout has increased significantly, especially in acute care settings. The increasing shortage of nursing professionals and the increased turnover rate has significantly increased the level of stress and workload (De Oliveira et al., 2021). Most of the studies in literature are systematic reviews and very few studies provide evidence of valid interventions for burnout. There is a need for longitudinal studies to address interventions for prevention of burnout.



Kathryn Treaster

MSN



Prevention of Substance Use Disorder Among Health Care Workers

The purpose of this literature review was to explore substance use disorder among health care workers. Understanding the prevalence and pattern of substance use in this population will allow for the creation of a program to protect health care workers from drug diversion and impairment. Substance abuse has reached epidemic proportions in the United States and remains very costly to the healthcare system. Health care professionals are equally at risk for developing substance abuse disorders; in fact, health care professionals are affected at the same rate as the general population. It is essential that the issue of substance use disorders in health care professionals be addressed for the safety of both the affected individuals as well as patients.



Julia F. Wauchope

PMHNP-RN

Implementation of a Structured Communication Tool to Improve Interdisciplinary Collaboration and Communication in Caring for Patients with Extracorporeal Membrane Oxygenation (ECMO)

Problem Statement: The use of ECMO support is growing rapidly and patients on ECMO require complex care that includes a multidisciplinary team of healthcare workers. These patients are at increased risk for adverse events due to severity of illness and complications associated with the ECMO circuit. Clear and effective interdisciplinary communication is essential regarding the daily management and goals for these patients and must be understood by all members of the team.

Purpose: The purpose of this project is to develop and utilize a daily communication tool to improve knowledge and consistency regarding patient goals of care during multidisciplinary rounds, as well as to improve interdisciplinary communication and collaboration in caring for patients on ECMO.

Methods: Pre and post intervention surveys will be utilized to evaluate staff perceptions of knowledge and consistency in the patient plan of care, as well as perceptions of interdisciplinary communication and collaboration.

Inclusion Criteria: The tool will be implemented on all adult patients in the intensive care unit requiring ECMO support. Surveys will be given to all nursing staff and providers in the ICU working with patients on ECMO.

Implications for Practice: Upon obtaining and analyzing results, this quality improvement project is hoped to improve patient care by improving knowledge and consistency in the multidisciplinary plan, allowing for daily goals to be set and carried out efficiently by all team members who are involved in the care. Improvement in interdisciplinary communication is hoped to be achieved, as well as improvement in staff satisfaction and nursing contribution to rounds. If these outcomes are successfully achieved, further assessment by analyzing the impact of the tool on patient outcomes and quality indicators would be warranted. If successful, this tool may also be adjusted for use with other patients in the intensive care unit.



Kelly Elizabeth Williams

MS, MSN, CRNP, ACNP-BC, ACNS-BC



**MASTER OF SCIENCE
IN NURSING
PROJECTS**

Providers' Roles in Addressing Vaccine Hesitancy

Vaccine hesitancy continues to be a major cause for the return of preventable diseases. Vaccine hesitancy is defined as a delay or refusal to get vaccinated when vaccines are available. To address vaccine hesitancy in the primary care setting, providers must know and understand the reasons, roots, and ideology behind vaccine hesitancy. The purpose of this capstone project is to prepare and equip nurse practitioners and other medical providers how to address and decrease vaccine hesitancy. The CINAHL and MEDLINE databases were used to gather high quality articles related to roots of vaccine hesitancy and interventions that could assist providers in addressing it. The John Hopkins Evidence Appraisal Tool was used to evaluate literature. An in-depth review and synthesis of literature was performed and identified that lack of confidence, distrust, misinformation, neoliberal ideology, and absence of motivation were the root causes of hesitancy toward vaccines. Important variables that can decrease hesitancy are as follows: Providers' behavior, education, information, communication, and tools that can assist providers discussed in this literature review. Implementation of these tools into everyday practice can assist providers in decreasing vaccine hesitancy, improving vaccination rates, and ultimately preventing disease. Future studies are needed to gain more knowledge about additional ways of addressing vaccine hesitancy, in a growing technological world.



Andrey Bozhko

BSN, RN

Advance Care Planning: The Need to Implement

Advance care planning (ACP) is an important part of the holistic care for people. Having discussions about writing advance directives (ADs) earlier in a patient's care can decrease stress and anxiety for the patient and/or family at the end of life. Despite the need for ACP, its uptake and acceptance has been very low across the world. Nurse practitioners (NPs) in all areas of practice are in an ideal position to initiate ACP, from starting the conversation through its completion. The aim of this review was to conduct a search of the research on ACP implementation in adult elderly patients, supplemented with input from families and nurse practitioners, to determine barriers to its uptake and reasons for its importance. Examining the experiences, both positive and negative, of others with ACP can assist with streamlining discussions with future patients to increase the uptake of ACP. Several themes arose throughout an exhaustive review of the literature regarding ACP. Overall, patients displayed a better acceptance and understanding of ACP and ADs after discussing this with their providers. Making ACP discussions a part of any interaction with patients and/or families increased its completion and acceptance. NPs can make a difference in the uptake of AD because of their ideal positioning with patients, whether in the primary care or hospital setting. With patient and/or family education, there was an improved uptake in ACP and AD. NPs from varied backgrounds understand the importance of ACP, but may be hesitant to pursue the conversation for many reasons. Communication is key for these end-of-life discussions. The impact on not only the patient but the family can be profound.



Susan Katherine Baldwin

BSN, RN

Overcoming Mental Health Disparities in the African American Community: Interventions for the Nurse Practitioner

African Americans represent 13.4 % of the United States' population, but still experience health disparities when it comes to physical and mental health care. African Americans ages 18-49 are two times more likely than Caucasians to die from heart disease. Death rates in this community are also higher than Caucasian for diabetes, influenza, HIV/AIDS, stroke, asthma, and cancer. In addition to health disparities mental health disparities exist as well. African Americans with mental health conditions like bipolar or schizophrenia are more likely to be incarcerated than other races. As a healthcare provider it is necessary to acknowledge, understand, and mitigate these disparities to ensure this population receives quality care. Only one in three African Americans receive mental health care when needed. In comparison to Caucasians mental health rates are similar or lower, but the severity of mental illness is higher and more detrimental. Upon evaluation, the disparities arise in relation to care. Those disparities found include access to care, utilization of care, and poor-quality of care. This literature synthesis was completed to identify possible interventions that can be implemented to overcome the mental health disparities in the African American community. Those interventions include telehealth, cultural competency/ sensitivity education, and building a rapport and trust with this community. As a family nurse practitioner, it is important to understand these disparities because many people in this population utilize their primary care provider for mental health services. Nurse practitioners have been shown to provide safe effective quality care and use a more holistic approach to care. The interventions found in literature addressed the access to care and utilization of it while improving the quality of mental health care for African Americans which may lead to improved outcomes in this community.



Tiara R. Brown

BSN, RN



Provider-Patient Relationships and Medication Adherence: An Evidence-Based Analysis

Chronic conditions among older adults often require the use of multiple medications to manage comorbidities which results in polypharmacy. Typically, management entails a multidisciplinary collaboration with the goal of attaining optimum health. In doing so, patients and providers build relationships which can either be deemed negative or positive by the patient. There is a need therefore to critically analyze the impact of patient-provider relationship especially on its impact on medication adherence. In this evidence-based analysis, the author seeks to investigate whether positive patient-provider relationships improve medication adherence in older adults.

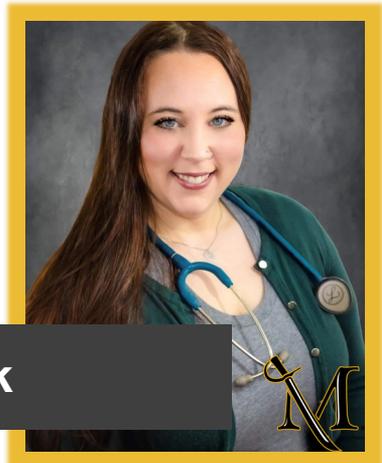


Augustine C. Chebarwett

BSN, RN

Morphine Equivalent Dosing: A Helpful Tool to Keep Patients Safe

Controlling a patient's pain with opioid medications is a fine balance; it is important to prescribe the correct dosages in order to avoid detrimental outcomes for the patient, while allowing the preservation of as much daily function as possible. Previous practice for the prescribing of opioid medications for long periods of time and at high dosages have resulted in adverse or detrimental patient outcomes such as addiction or even death. Once this problem was identified, many researchers identified how to safely prescribe opioids to patients when they are needed and how to wean patients from these medications when they are not. In order to fully understand a patient's risk for an adverse outcome, it is important to understand which medications are opioids, in which situations they should be prescribed, how they should be prescribed based on the guidelines developed by the Center for Disease Control and Prevention (CDC), and who is at risk for addiction or other adverse outcomes. Tools and screenings developed as a direct result of previous prescribing practices, such as Morphine Equivalent Daily Dosing (MEDD) or Morphine Milligram Equivalent (MME), help to standardize a patient's prescription in order to fully understand the risk of adverse outcomes. A review of the evidence concluded; adherence to prescribing guidelines for opioids, consistent use of an equivalent dosing tool and recognition of a patient's risk for adverse outcomes all promote positive outcomes.



Meghan Crook

BSN, RN

Barriers to Implementing Physician Assisted Suicide as an Intervention for Patients Who Are Terminally Ill

Physician assisted suicide has been a subject of controversy for decades. Though it has been legalized in numerous areas of the nation, there are still many states where it has not been deemed an appropriate medical intervention. Unfortunately, there are many impediments to physician assisted suicide that leave patients in distress with insufficient options for relief. There are numerous ethical, legal, medical, religious, and personal reservations that inhibit the accessibility of this regimen. In a society that has normalized putting animals to sleep in order to avoid torment at time of impending death, why are there so many impediments to the implementation to this practice? The purpose of this literature review is to identify what barriers exist to the universal implementation of physician assisted suicide as a treatment option for patients who are suffering from a terminal medical illness. The available literature was studied judiciously to understand why approval of physician assisted suicide has met these barriers. By understanding these obstacles and identifying the avenues to overcome these barriers, providers may be able to deliver patients a treatment option that can bring them relief.



Leah Dawson

BSN, RN

An Interdisciplinary Approach to Fall Management in Clinical Settings

Falls are a significant component contributing to extended hospital stays, functional decline, and death. The hospital environment places patients at high risk of a fall due to multiple reasons, including post-operative conditions, disorientation, multiple pieces of equipment, introduction to new medication, and hesitancy to call for help. Health care facilities and care providers consistently seek new strategies that help reduce falls and implement reduction strategies through policy changes. Using proper tools to assess patients for falls risk is the one way to intervene and implement strategies. The Cumulative Index to Nursing and Allied Health (CINAHL), Medical Literature Analysis and Retrieval System (MEDLINE), and Google Scholar databases were used to obtain high-quality articles related to the evidence-based best practices to mitigate patient falls among hospitalized patients. Article quality was evaluated using the Johns Hopkins evidence appraisal tool. The literature review and synthesis were conducted to explore the interdisciplinary approaches to fall management in clinical settings. Multiple tools are identified for falls risk assessment. Results revealed that the selection of the right tool being used to assess risk based on the patient population is important. Patient safety is an essential aspect of patient health and recovery while hospitalized. Health professionals should utilize critical thinking and evidence-based tools/interventions while implementing fall precautions and report current practice barriers in fall prevention to their leadership. Further research is recommended focusing on evidence-based practice helps reduce falls in hospital settings.



Navdeep Kaur Ghuman

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Capstone Project: Effectiveness of the Buzzy™ Device During Needle Related Procedures in Children

Needle-related procedures cause anxiety and pain in children. Needle-related procedure fear and anxiety can continue into adulthood. Efforts should be made to reduce the pain and anxiety during these procedures. There are multiple methods used to reduce pain during procedures which include topical lidocaine, distraction, parental comfort, virtual reality, and vibration devices. The purpose of this literature review and synthesis is to determine the effectiveness of the Buzzy™ device at reducing pain and anxiety during needle-related procedures such as phlebotomy, subcutaneous injection, intramuscular injections, and intravenous cannulation in comparison to other methods of pain reduction as well as standard comfort care. Sixteen articles were selected that examined the Buzzy™ device in comparison to other methods of reducing pain and anxiety during needle-related procedures. The Buzzy™ device has been shown in some studies to decrease pain during needle-related procedures. The Buzzy™ device has been shown to be a safe and reliable possibility for pain reduction in children. In conclusion there is need for further research testing the Buzzy™ device against other methods of pain reduction during painful needle-related procedures.



Caleb Gish

RN, BSN



Adult Nursing Students' Perspectives on the Most Valued Characteristics of Nursing Clinical Instructors: An Integrative Review

The roles and responsibilities of nursing clinical instructors (CI) are well established in the literature. The characteristics that make CIs effective at fulfilling their roles and the utilization of effective teaching behaviors have been examined in the literature. However, the identification of the most valued characteristics of CIs remains under scrutiny. There are many different characteristics identified as those most valued to be an effective CI. The five identified characteristic categories are teaching ability, nursing competence, personality, evaluation, and interpersonal relationship. The perspectives of adult nursing students (ANSs) regarding effective characteristics of CIs have been the topic of sporadic examination since first identified by Barham in 1965. These perspectives are the key to identifying which characteristics are most valued and effectively used by CIs. This integrative review is aimed to examine existing evidence and recommendations, to assess characteristics of effective CIs as identified through ANS's perspectives. The 14 articles included in this review are peer reviewed studies in the English language from 2018-2022 that were not included in the hallmark reviews by Collier, Labrague et al., and Letor. The results from this integrative review suggest that interpersonal relationships are the most valued characteristic of effective CIs. Teaching ability and personality tied for the second most desired characteristic. A recommendation arose, the continual need for more studies to identify how CIs will meet the demands of educating future generations of ANSs and prepare them to meet the challenges of the ever-changing healthcare industry and nursing academia.



Andrew Michael Glindeman

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Serologic Testing for Diagnosis of Acute Lyme Disease

Lyme disease (LD) is one of the most prevalent vector-borne diseases in the United States. Lyme disease is primarily transmitted to humans by ticks infected with the *Borrelia burgdorferi* (*B. burgdorferi*) bacteria (Brandt et al., 2019). Data shows a distinct difference in diagnosing early versus late LD; but are providers following the latest evidenced based practice guidelines (Vreugdenhil et al., 2020). Whether due to a lack of training or knowledge barrier, the potential for severe long-term consequences can occur if LD is misdiagnosed. The general medical profession at large can benefit from relevant education on serological diagnostic testing in order to limit inappropriate practice when diagnosing a patient with LD. Understanding the clinical presentation, disease process of LD, and stages of infection of LD, all play a critical role in the use of serological testing for LD diagnosis.

Improved sensitivity of serological testing has been demonstrated using a modified two-tiered testing (MTTT) approach, in which a second EIA instead of the traditional immunoblot is used (Brandt et al., 2019). That said, the continuation of standardized testing for acute LD remains common practice in the diagnostic approach. Therefore, the ambiguity of diagnostic testing poses a concern for accurate identification and treatment in the stages of LD. Evidence of using the MTTT algorithm indicates the significance of improved sensitivity and specificity when using serological testing in the laboratory for acute LD. The importance of informing and providing education to the medical community on the evidenced based practice of serological diagnostic testing for early LD is the primary emphasis of this project.



Courtney L. Greiner

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Development and Implementation of a Postpartum Anxiety Teaching Plan for Baccalaureate Nursing Students

Postpartum anxiety (PPA) is a common mood disorder that affects women during the postpartum period. Because nurses care for postpartum patients in a variety of settings, baccalaureate nursing students were selected to receive education regarding PPA. A literature search was conducted to develop content for a PPA teaching plan focused on the following areas: prevalence, risk factors, screening and assessment, symptomology, consequences, and treatment. The Flipped Classroom Method literature was explored with support of use to build higher-level thinking among nursing students. A short video and PPA publication were provided as learning materials and administered to 22 baccalaureate nursing students at a private university to review independently prior to the scheduled class time. The author facilitated completion of a case study during class with students in small groups. Students demonstrated critical thinking and collaboration while answering case study prompts and developing a PPA care plan. Student evaluation showed retention of PPA concepts of risk factors, symptoms, and treatment. However, student recognition of PPA consequences was low. Overall, students reported that the teaching met the stated objectives and was valuable to their future nursing careers. A study limitation included the small student sample size. Additional PPA research opportunities may focus on PPA treatment studies to assess efficacy, inclusion of parents in the LGBTQ+ community, further testing of PPA screening tools, and long-term consequences of PPA.



Nicole L. Grissinger

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The Effect of Mobile Health Technology on Chronic Disease Management and Recommendations for the Nurse Practitioner

Integrating modern technology into patient care is at the forefront of medical advancement. New-age technology is becoming more accessible to patients around the United States, and there is a growing desire for autonomy in patient care. Utilizing portable technology such as wearable activity monitors (WAM) like Apple Watch or Fitbit and integrating health driven phone applications is becoming more popular to patients all around the world. The burden of millions of individuals living with chronic disease requires astute monitoring to prevent harmful outcomes to patients. A literature search was completed to see how implementing WAMs and health-related applications effected patient activity levels and health. Three common themes were identified during the literature search: mobile phone interventions, wearable activity devices, and multi-modal approaches. Each theme identified an improvement in physical activity levels when mobile health technology was integrated into their care. While integrating mobile health technology is important, implementing a patient-centered, multi-modal approach to using these devices was found to be beneficial. Utilizing face to face education, information pamphlets on physical activity, incentivizing progress with rewards, and using their technology to track their activity growth proved beneficial to improving their health. Advanced practice providers should become more aware of the benefits these WAM and phone applications have to offer and how they can be utilized in their patient care. Incorporating mobile health technology into a patient specific care plan can be used to help. Altogether, implementing WAMs and phone applications with a multi-modal approach can decrease the burden of chronic disease by helping patients lead healthier lifestyles.



Bethany Han Luckenbill

BSN, RN, CCRN

Family Nurse Practitioner: Primary Care of the Cardiac Patient

The aim of this paper is to perform an integrative review to provide a more comprehensive understanding of the impacts of the family nurse practitioner in primary care on the care of cardiac patients. The most common disease impacting patients in the United States is coronary artery disease with 659, 000 deaths per year. A patient suffers a heart attack every 40 seconds in the United States, and currently heart disease has cost the United States \$363 billion from 2016 through 2017. With the overall decreasing numbers of primary care physician, and the increasing number of patients in need of primary care, due to increasing age of the “baby boomers” and the increased availability of health insurance due to the Affordable Care Act, an incredible burden is being placed on the healthcare system. Nurse practitioners are trained to diagnose, treat, and prescribe medications. The increasing numbers of nurse practitioners in the workforce are educated to improve the burden of primary care, especially for chronic diseases such as cardiovascular disease. Therefore, a PICO question has been developed: Does employing a family nurse practitioner in the primary care office impact the care of patients with cardiovascular disease by reducing hospitalizations, emergency room visits, and increasing medication compliance?



Cassandra D. Helwig

RN, BSN, CEN

Health Coaching in Type 2 Diabetes: An Evidence-Based Practice Analysis

Health Coaching is a tool utilized by multiple disciplines to elicit client centered change by leveraging intrinsic motivational factors. Type 2 diabetes mellitus afflicts roughly ten percent of the population in the United States, affecting almost every organ system in the body. The efficacy of health coaching in diabetic populations was evaluated through a synthesis of the literature. Twelve studies met inclusion criteria to address the question: What is the impact of health coaching on HbA1c levels in patients with type 2 diabetes compared to non-behavioral based therapies?

Health coaching usually improved glycemic control; statistical significance was achieved in more than half of the interventions. Successful health coaching interventions reduced HbA1c levels by roughly 0.3% to 0.7%. Several factors played an integral role in the degree of HbA1c change. The single greatest predictor of a successful intervention is the level of baseline diabetic control in the study. Successful health coaching was more likely to occur in patients with poor glycemic control under the guidance of an experience certified coach. There is robust evidence to support the adequacy of six months of health coaching, moderate evidence to suggest glycemic improvement continues through a year, but the persistence of the effects from health coaching is unknown. The sheer quantity of time a coach spent with a client did not predict success in a program. Many nationalities were represented, and various different disciplines were utilized as coaches; these factors did not appear to grossly alter efficacy. There did not appear to be a difference between coaching implemented by telephone versus face-to-face.

Health coaching is an intervention practitioners should consider for clients with poorly controlled diabetes, or those amenable to behavioral changes for optimal diabetic health.



Brad Hertzler

BSN, RN, CCRN

Greening Education: An Eco-Centric Education Program to Promote Sustainable Values Among Healthcare Personnel

The climate crisis is a threat to the health and well-being of humans, especially those in vulnerable demographic groups. Despite the increasing number of patients suffering from illnesses associated with hostile climate conditions, the healthcare industry is recognized as a major contributor to global greenhouse gas emissions and irresponsible consumption and pollution of the planet's natural resources. Psychosocial barriers to engagement in climate advocacy have reportedly hindered healthcare personnel from taking actionable measures to promote sustainable practice at the bedside. A lack of strong evidence exists to evaluate the measurable effect of eco-centric education on the knowledge, attitudes, and beliefs of healthcare personnel. This project aimed to examine the perceptions of those with a vested interest in healthcare services after an expert-led environmental health education program. Community members were invited to attend a virtual event and were asked to complete a program evaluation immediately after the event. Analysis of the data obtained from the program evaluations indicated that participants found the education highly valuable. Data revealed participants perceived an increase in personal knowledge, and a change in their own attitudes and beliefs related to environmental health and climate advocacy. All participants identified ways they could advocate for eco-centric healthcare. The results of this study have the potential to guide future healthcare education programs and sustainable policy development.



Meredith Jester

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Parental Vaccine Hesitancy: Overcoming Barriers

Vaccine hesitancy is a term used to describe those who are on the continuum between completely accepting or completely refusing vaccinations. It is a complex term involving many different layers. Ultimately vaccine hesitancy leads to a delay or under-utilization of vaccine uptake, leading to poor patient outcomes, a higher cost of care and recurrence of preventable disease. Despite vaccinations being one of the greatest scientific accomplishments, there has recently been an increase in non-compliance with vaccine schedules, particularly amongst parents of vaccine-eligible children. This literature synthesis aims to assess the cause of vaccine hesitancy and how health care providers can approach the subject with parents. A literature search was completed on CINAHL resulting in 323 articles. 22 of which were selected for synthesis and evaluated for level of evidence. Findings revealed themes of motivational interviewing, a targeted, personalized approach, social media interventions, and health care provider interventions. The overall recommendations from the studies were that a multi-faceted approach including multiple interventions were necessary in order for health care providers to effectively address vaccine hesitancy.



Kelsey M. Kimenhour

BSN, RN, CEN



Utilizing the Teach Back Method in Heart Failure Education

Cardiovascular disease leads to significant hospitalizations and mortality. Heart failure (HF) is projected to cost the health care system nearly 97 million dollars by 2030. The relationship between the family nurse practitioner (FNP) and the patient is crucial when providing education on how to manage a HF diagnosis at home. Increased HF hospitalizations have a direct correlation to increased mortality. Utilizing the teach back method when providing HF education has shown to be more effective in engaging patients in their own care therefore decreasing readmissions. The CINAHL and MEDLINE databases were used to obtain high quality articles related to using the teach back method in HF education. The literature was evaluated using the Johns Hopkins evidence appraisal resource which was followed by a comprehensive analysis of the research to determine the relationship between using the teach back method during HF education and decreasing HF related hospital admissions. Evidence suggests that HF education provided to the patient needs to be the right information at the right time to be effective. There are limitations with direct correlation between the style of patient education and readmissions due to factors of comorbidities, chronic illness, and socioeconomic barriers. Further limitations suggest that qualitative research does not produce findings that are generalizable like quantitative research does.



Erica J. Lehman

BSN, RN-BC

The Effect of Hand Hygiene on Eliminating C. Diff From Caregivers' Hands

Clostridiois is difficile (C. diff) is a pathogen associated with hospitalizations and repeated antibiotic use: it has also been found to cause at least one third of infections that are transmitted person-to-person. As the incidence of C. diff infections rise worldwide, with subsequent increases in morbidity, mortality, and healthcare costs, it is prudent for all healthcare practitioners across all realms of healthcare to adopt a standard of care to prevent the cross-contamination and re-infection of this potential deadly bacteria. While alcohol-based hand sanitizers are an effective means of decreasing the transmission of most bacterial pathogens, evidence analyzed and synthesized in this scholarly project, explored the effectiveness of hand hygiene with soap and water versus the use of alcohol-based hand sanitizers as a first-line defense to protect patients. Microbiologists have demonstrated that, under stress, C. diff, a Gram-positive, toxin producing pathogen, will produce spores that are able to tolerate extreme conditions due to the protective pseudo-membrane that it develops. The strength and impermeability of the pseudo-membrane makes alcohol-based hand sanitizers ineffective against reducing and eliminating the C. diff on the hands. Therefore, proper education and hand hygiene of staff and patients is essential in the prevention of cross contamination and re-infection. A minimum of 30 seconds of structured handwashing with soap and water is more effective at eradicating Clostridiosis difficile bio-burden than the use of alcohol-based hand sanitizers and has the potential to decrease hospital stays, re-infection, and length of illness.



Bethann O. Linnenbaugh

BSN, RN



Evaluating the Use of an Escape Room to Reinforce APA Style

Background/Purpose: The COVID-19 pandemic demonstrated many educators were under-prepared to make the switch to a fully online environment. Many activities were independent self-paced asynchronous modules that lacked engagement. The use of virtual escape rooms as a learning tool is one method to be consider. Thus, the purpose of this study was to investigate if a virtual ER is effective at enhancing students' understanding of APA style.

Theoretical Framework: Gamification appears to be an effective educational tool for increasing satisfaction and knowledge. ERs increase engagement from students and provide an effective method for enhancing learning, particularly of duller subject matters. Fewer studies have been done on virtual escape rooms though those found virtual ERs to be more effective than didactic methods.

Methods: A quantitative, pre-post design study was implemented to examine the effectiveness of using an ER to reinforce APA style. A convenience sample of post-licensure BSN, MSN, and DNP students was utilized. Following consent, students completed a demographics and an APA knowledge pre-test. Students then completed the APA ER activity. Following completion of all puzzles, students were provided a code that allowed them to complete the post-test APA knowledge test, as well as several questions to assess satisfaction with the activity.

Results: Students had an overall mixed opinion of the Escape Room. No statistically significant discernible relationship was found between student's overall opinion of the ER and their change in test score. A left skew of student ratings of puzzle difficulty was noted indicating puzzles are challenging but may not be too challenging. Post-activity comfort improved by 160%, or a percent change of +34.8%. Students showed a statistically significant increase in test score following the ER ($p < 0.005$).

Conclusions & Implications: As we continue to see continued online learning in all levels of nursing education, it is imperative for faculty to seek innovative ways to engage students in the online environment. Using an escape room to teach materials is an innovative strategy, and it is vital to assess its overall impact on student learning outcomes. Examining data regarding overall knowledge acquisition, as well as satisfaction with the activity allows faculty to determine the effectiveness and level of student support for this type of innovation. As with any new educational pedagogy the process is a constant cycle of planning, implementation, assessment, evaluation, and refinement. As this was the first trial of this teaching modality more work will need to be completed to refine the process.



Justin S. McFail

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Weight Bias in Healthcare and its Impact on Patient Outcomes: How Provider's Internal Bias Can Lead to Poor Quality of Care and Poor Patient Outcomes

There is current evidence suggesting that healthcare providers hold negative stereotypes and attitudes towards patients with obesity. These attitudes can affect the obese patient in an unfavorable way. Negative attitudes can lead to avoidance of care, poor adherence to medical treatments, feelings of worthlessness and disrespect, and a lack of trust in medical professionals. The obese patient's quality of care can suffer from these negative views and lead to poor medical outcomes. The purpose of this literature synthesis was to explore the current evidence on how weight bias from a primary care provider can affect the utilization of health care services and ultimately, lead to negative outcomes for the obese patient. CINAHL, PubMed, and Psych-Info were searched for peer-reviewed papers that presented empirical data relevant to weight bias, weight stigma, discrimination against obese patients, and related medical care. Evidence was selected regarding the impact of weight bias for healthcare quality and outcomes. Evidence was then evaluated using the Johns Hopkins Appraisal tool. This review confirmed that the experiences of weight bias and weight discrimination can reduce the quality of care for those who suffer from obesity. These negative outcomes can ultimately lead to healthcare avoidance. Practice recommendations for the family nurse practitioner and medical professionals are provided for best care outcomes in the obese patient and include identifying internal bias, improving communication techniques, and providing a supportive office environment.



Leigh McKissick

BSN, RN

The Effect of Medical Cannabis Laws on Opiate Related Deaths

According to the Centers for Disease Control, there was over 100,000 opiate related deaths from April 2020 through April 2021. This was a 28.5% increase from the previous year. There have been many efforts being made to slow down these numbers, but the death toll continues to rise. With more states passing medical cannabis laws, it raises the question, could cannabis be used as a substitute for opiates and could this reduce the number of opiate related deaths in these states? CINAHL, PUB-MED and MEDLINE databases were used to find high quality peer-reviewed articles to help answer this PICO question if states that have medical cannabis laws have seen a decrease in the number of opiate related deaths? The literature was evaluated using the Johns Hopkins evidence appraisal tool. A comprehensive literature review and synthesis was completed to answer the research question. Overall, there is a lack of sufficient evidence currently that proves that states with medical cannabis laws have had a significant decrease in the number of opiate related deaths. It is recommended that more research be completed in the future on this topic. Unfortunately, this will remain a challenge as long as cannabis is still considered a Class 1 controlled substance. There is no federal funding available for research because Class 1 controlled substances are considered to have no medical benefit.



Danielle S. Miller

BSN, RN



First Responder Mental Health Screening and Suicide Prevention Recommendations for the Family Nurse Practitioner

First responders are repeatedly exposed to occupational stressors and traumatic events, that have a negative impact on their mental health status. Occupational stressors can lead to post-traumatic stress disorder, depression, anxiety, other mental illnesses, drug and alcohol addiction, or even suicide. The aim of this capstone project is to review and synthesize available literature on best practice approaches for first responder mental health screening and suicide prevention for the family nurse practitioner. First responders include firefighters, law enforcement officers, military personnel, correctional officers, paramedics, emergency medical technicians and coroners. Search strategies included the use of electronic databases and a manual search of relevant articles from reference lists. ScienceDirect, Ovid, MEDLINE Complete, CINAHL Complete, APA Psycinfo, eScholarship, PASCAL Archive, and Directory of Open Access Journals were explored electronically. The literature was evaluated using the John Hopkins evidence appraisal tool. Targeted education and screening interventions can decrease the risk of mental illness and suicide for first responders if implemented in primary care. Findings demonstrate implementation of mental health screening, prevention, and interventions created a positive impact for first responders, their families, and the community. Further, strategies identified include the use of predictive models, toolkits, peer support programs, standardized screening, postvention, debriefing, fitness programs and education. Despite the amount of evidence, further and future research regarding mental health screening and suicide prevention is encouraged. Specifically, to include replicated studies, increased participation, randomization and to increase generalizability as most studies utilized non-representative samples.



Rachel Lea Mowry

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Providing Medical Care to the Unsheltered Through Street Medicine: A Case Study

The homeless population is one of the most vulnerable when it comes to receiving medical and nursing care. Many barriers exist making care difficult. The instability of shelter, the lack of transportation, the financial constraints, and the lack of basic living necessities makes traditional care difficult for the unsheltered. Dr. Jim Withers coined the concept of “street medicine” in the 1980s and 1990s. This concept takes medical professionals to the street to care for the homeless on the terms and the locations of where the unsheltered are living. This idea reduces many of the barriers of providing healthcare because it brings the provider to the patient. These programs are multidisciplinary including providers, nurses, social workers, shelter facilities, and other organizations working together to provide primary care to the unsheltered. Many times, the street medicine programs are able to provide the same level of care in the street that an individual receives at a clinic or primary care office. The CINAHL, MEDLINE, and PUBMED databases were used to attempt to find high quality research on this topic. Unfortunately, most available evidence is low quality or does not yet exist. For this application case study, a comprehensive literature review was conducted to investigate if in the homeless population, does the implementation of a street medicine program reduce barriers to care, and improve patient outcomes. Additionally common themes were investigated to give recommendations to health care providers to implement street medicine programs.



Antonio Neve Jr.

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Family Practice Provider's Influence Upon Healthcare Access for the LGBTQ Population: Practice Recommendations

Providing primary care to the LGBTQ community is a multidimensional practice. While these individuals experience many of the same health milestones and needs as heterosexual and cisgender patients, the unique needs the LGBTQ patient must be addressed. Gender identity and conflict as it pertains to mental health, sexual health, STI prevention, and hormone supplementation or blockade are just a few of the discussions that a primary care providers should be prepared to initiate with LGBTQ patients. However, stigma, prejudice, and the lack of education on the part of providers have created barriers between the LGBTQ community and healthcare, particularly primary care. These barriers have led to higher rates of mental health disorders and lower rates of routine preventative care (Furness et al., 2020.) The aim of this literature synthesis was to identify the common themes and practice recommendations on providing primary care to LGBTQ patients. EBSCOhost, MedlinePlus, and Google Scholar were utilized to locate academic journal articles. Ultimately 21 articles were utilized and evaluated using the Johns Hopkins evidence appraisal tool. The most common theme shared across all sources is a significant need for medical and nursing schools to revamp curriculum to include providing LGBTQ culturally sensitive care. As growing trends of homosexuality, bisexuality, and gender identity can be seen in the public, primary care practice recommendations and medical education programs have not pivoted to include these topics in their preparation of providers at a similar rate. Uneducated and insensitive primary care providers can have far reaching negative effects on both the physical and mental health of LGBTQ patients. By better educating and preparing the healthcare workforce, LGBTQ patients can become less marginalized and more comfortable participating in health promotion activities.



Natalie E. Preston

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Barriers and Facilitators to Mental Health Collaboration in the Primary Care Setting: A Literature Review

A report published by Mental Health America (MHA) states mental health statistics are rising exponentially all over the world. In the United States alone there has been a 19% increase in mental health diagnoses (MHA, 2022). This number represents a 1.5 million increase over last year's report (MHA, 2022). Even before today, there was a critical shortage of mental health providers. The World Health Organization (WHO) identified depression as the leading cause of disability in the world (Depression, 2017). The Collaborative Care model implements treatment for depression and anxiety in the primary care setting while integrating a behavioral health specialist, in collaboration with the primary care provider, to effectively screen and treat common mental health concerns. While primary care clinicians may be qualified to conduct screening and provide preventative interventions the interest, skill level, and competency levels are variable. The CINAHL, Google Scholar, and MEDLINE databases were used to obtain high quality research articles to explain why more medical practices, including academic facilities, aren't establishing primary-behavioral medical practices, recruiting more MH providers, and integrating evidence-based care models. All literature was evaluated using the Johns Hopkins evidence appraisal tool. The objective of this review was to synthesize evidence of significant barriers and facilitators to the integration of collaborative care for mental health treatment within the primary care setting. The clinical benefits, as well as cost-effectiveness, of the collaborative care model provides positive outcomes for people with mental and physical comorbidities.



Beth D. Progin

BA, BSN, AA, RN, CPAN

Striving for Retention of Provider Empathy: The Impact of the Covid-19 Pandemic on Provider Burnout

Burnout is a maladaptive reaction to incessant occupational responsibilities and stressful workplace environments. This is common in healthcare providers and is associated with detrimental outcomes for not only these workers, but patients and the healthcare system as a whole. High burnout levels are associated with the loss of provider empathy. The COVID-19 pandemic has precipitated more intolerable stressors on healthcare providers, such as fear of the unknown, lack of adequate resources, anxiety of contracting the virus or spreading it to loved ones, and the ever-changing policies directing practice. The database Cumulative Index to Nursing and Allied Health Literature (CINAHL) was used to obtain articles for this literature synthesis, and the evidence was evaluated using the John Hopkins evidence appraisal tool. A thorough analysis of the research was performed to discover the consequences of burnout and the COVID-19 pandemic on provider empathy. Emotional exhaustion and overwhelming occupational stressors are linked to insufficient patient care, diminished patient satisfaction, and medical errors. To combat burnout, healthcare providers can retain resilience by practicing self-care, teamwork, and feeling appreciated for their work. There is a lack of research that assesses specific interventions provided to healthcare workers with burnout to retain provider empathy, however this synthesis concludes with resilience recommendations for the healthcare provider.



Melissa J. Shroy

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Whole Foods Plant Based Diet to Decrease Hypercholesterolemia in Adults without Medication: Nurse Practitioner Education Recommendations

Hypercholesterolemia continues to be a significant risk factor associated with coronary artery disease (CAD). While factors such as genetic predisposition, age, and gender are uncontrollable, there are many lifestyle habits that are manageable. Diet continues to be the leading controllable intervention in primary prevention of hypercholesterolemia. For those that have uncontrollable risk factors, the tertiary preventative measure is also diet. While adults inherently are aware of the causes of heart disease, many do not adhere to a healthy routine. A literature review was conducted to explore if a Whole Foods Plant Based (WFPB) diet is recommended to prevent and/or reverse hypercholesterolemia. Patient education for hypercholesterolemia prevention related to diet will be presented as resources for the Nurse Practitioner.



Jeannette Stambaugh

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The Importance of Gender-Affirming Practices in Primary Care

Transgender individuals face unique challenges, including numerous and distinctive health related challenges. They are at higher risk for substance use disorders, tobacco use, anxiety disorders, depression, suicidal ideation, and suicide attempts when compared to their cisgender peers. They are also more likely to be uninsured and more likely to experience poverty. Unfortunately, transgender patients often have difficulty accessing healthcare services, for both routine and transgender-specific care, and when they successfully do access care, they frequently face stigma and discrimination. As a result, transgender individuals often delay or avoid healthcare. It is especially important that transgender individuals be able to access primary care services to maintain their health and have access to their basic health needs including routine physicals, preventative care, and a referral network to specialists. Gender-affirming practices in primary care are the key to healthcare access for transgender individuals. Unfortunately, there are many barriers to gender-affirming practices in primary care practices. In this literature synthesis, the difficulties transgender patients face accessing health services were explored as well as the barriers to implementing gender-affirming practices in a primary care practice. Barriers include overt transphobia from providers and office staff, lack of gender-inclusive forms and documentation in the electronic health record, lack of respectful communication, lack of provider education related to transgender healthcare, lack of gender-inclusive facilities, and providers gatekeeping referrals to gender clinics among many other barriers. Solutions to these barriers were also explored.



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Palliative Care for the Nurse Practitioner: Bridging the Gap in Education and Identifying the Purpose of Our Role

Integration of palliative care consultation and services early in the course trajectory of chronic and severe illness is beneficial for many reasons. It can identify patient and family needs to promote the best quality of life possible. Nurse practitioners are uniquely positioned to play a pivotal role in the identification of these needs in following with an interdisciplinary model of care by virtue of both their nursing background and advanced educational preparation. A thorough literature synthesis was performed to examine the role in which nurse practitioners play in delivering palliative care even in non-specialized settings, particularly family practice. Educational gaps were also researched to gauge how comfortable nurse practitioners are with the topic of palliative care as well as what formal educational structure and content exists in current academic programs. CINAHL, PubMed, and Google Scholar databases were used to search for quality articles that addressed these questions. Appraisals utilizing the Johns Hopkins evidence tool were performed. Common themes that were identified across the articles were the lack of formal education embedded into nurse practitioner programs and lack of comfort dealing with palliative care topics due to this knowledge gap. Conversely, when nurse practitioners' roles in palliative care were examined, the results were positive including better patient satisfaction and quality of life, and less healthcare utilization towards the end of life. While there is sufficient evidence available to highlight the positive contribution of nurse practitioners in palliative care delivery, there are opportunities for growth and development within educational programs to enhance this delivery and improve nurse practitioner confidence.



Michelle Stojanovic

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Antibiotics: A New Standard for the Treatment of Uncomplicated Acute Appendicitis

Acute appendicitis is one the most common causes of abdominal pain. Researchers have shown that the use of antibiotics as the primary treatment of uncomplicated acute appendicitis (UAA) have been affective and prevent the need for surgical intervention. However, the preferred treatment for UAA remains to be an appendectomy. The focus of this review is to determine if medical management of UAA could replace surgical management as the stand-ard of care. The *Cumulative Index to Nursing and Allied Health Literature* (CINAHL) and *Medical Literature Analysis and Retrieval System* (MEDLINE) databases were used to obtain appropriate literature for the topic. Ten articles were supportive in answering the PICO question and the John Hopkins evidence appraisal tool was used to evalu-ate the selected articles which ranged from Level I to IV with high and good quality ratings. The ten articles used for this review provided evidence that indicated 70% to 90% of patients treated primarily with antibiotics for UAA, did not require an appendectomy within one year of diag-nosis. The recommendation for medical treatment of UAA over surgical intervention could be made by providers which may reduce costs and avoid the risks associated with an appendectomy.



Jesse Thomaz

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How Family Nurse Practitioners Can Improve Exercise Adherence in Patients with Heart Disease: A Literature Review

Although it is well known that physical activity benefits individuals with cardiovascular disease, exercise adherence is still a problem for many cardiac patients. Typically, these individuals attend some form of cardiac rehabilitation if they have a major cardiac event. However, long-term adherence to exercise is an apparent problem that needs to be improved by primary care physicians or family nurse practitioners. A literature search was completed using the CINHALL database, yielding 15 articles, that were then appraised with the Johns Hopkins evidence appraisal tool. Multiple concepts or tools that could improve exercise adherence in this patient population have been researched, such as motivational interviewing, the role of self-efficacy, prescribed exercise, the importance of a support team, and the use of exercise trackers or diaries. This literature review aims to use current literature to help discover what nurse practitioners in a family practice setting can implement to improve exercise adherence for a patient with cardiac disease.



Alexander Toppin

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Slowing the Rate of Cognitive Impairment: Nutritional Versus Pharmaceutical Interventions

Cognitive impairment, when a person begins to have trouble remembering things, concentrating, or making important decisions, is a precursor to dementia and Alzheimer's disease. Current research exists, investigating the best ways to treat cognitive impairment. While there are many pharmaceutical therapies available to slow progression, none can stop progression completely. It is identified that prevention and identifying modifiable risk factors are the most easily implemented and cost effective. Treatment with nutritional interventions can slow the progression of but cannot fully prevent cognitive impairment. Prevention as a course of action provides elimination of the risk factors that lead to cognitive impairment. A literature synthesis was proposed to identify existing therapies in current evidence and best practice guidelines. An extensive review of the literature was then performed using CINAHL, MEDLINE, and Google Scholar to find articles published within the last six years related to the treatment of cognitive impairment using nutrition or pharmaceuticals. While research using pharmaceuticals has yielded no significant breakthroughs in the past years, there have been positive outcomes in nutritional interventions for cognitive impairment. Thus far, treating heart disease risk factors and eating a healthy, well-balanced diet low in fat and simple carbohydrates has had the most significant impact. This evidence indicates that using primary and secondary prevention to slow the rate of cognitive decline should be the primary course of therapy by primary care providers. As evidence evolves, more research should be completed in the prevention and management of cognitive impairment.



Rebekah Lynn Troutman

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Acupuncture as an Adjunct to SSRIs for Symptom Management in Major Depressive Disorder: A Literature Synthesis

Major depressive disorder affects large amounts of the population not only in the United States, but across the globe. It is a diagnosis that can plague some throughout their life and they experience poor symptom control with medication alone. The aim of this review is to attempt to answer the question: In adults with major depressive disorder, is acupuncture as an adjunct therapy to SSRIs more effective in symptom management than SSRIs alone? For the purpose of this literature review 9 articles were utilized. 3 articles were Level A and 6 articles held Level B according to the Johns Hopkins Nursing Evidence-based Practice Rating Scale. Quality was rated I or II for all articles. Findings suggest that acupuncture could be a valuable tool in the control of symptoms, although there must be more research to truly define patient outcomes. Limitations in study size and frequency of treatment would need to be overcome for a more accurate evaluation of this adjunct therapy.



Amy Vedder

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Non-pharmacological Modalities to Improve Sleep-Related Outcomes

Even though pharmacological agents exist to aid in the treatment of sleep-related disorders, an abundance of non-pharmacological modalities exist that could serve as first line remedies in lieu of medicinal interventions. To understand the most effective non-pharmacological modalities to improve sleep-related outcomes various databases were used to compile high-quality evidence for a comprehensive literature review and coalescence. Therapies identified include auditory, olfactory, nutritional, contact, dual modality/cross over, exercise, and mindfulness. Conclusions are centered on the goal of guiding the family nurse practitioner in clinical treatment plans of patients who suffer from fatigue or sleep-related disorders.



Jennifer R. Weaver

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Effective Screening Tools for Depression and Anxiety in Adolescents in the Primary Care Setting: A Literature Synthesis

Depression and anxiety are debilitating mental conditions. Without early recognition proper treatment, those affected can experience severe functional impairment or potentially fatal outcomes. While they can be independent of each other, depression and anxiety often exist as a dual diagnosis. From a global standpoint, the rate of depression and anxiety has steadily increased over the years—particularly in the adolescent population. There are several screening tools that can be used to identify depression and anxiety in youth, but many are not appropriate or practical for use in the primary care setting. An extensive search was completed using EBSCOhost, CINAHL, and PubMed to collect relevant, high-quality articles that focus on depression and anxiety screening tools for adolescents in primary care. A total of 19 articles were reviewed, all of which focused on assessing adolescents for depression alone, anxiety alone, or depression and anxiety together. The Johns Hopkins Nursing evidence appraisal tool was used to determine the level and quality for each of the selected articles. The aim of this synthesis was to identify which of the screening tools for depression and anxiety were effective and reliable for use in the primary care setting for adolescents. Several tools were identified as reliable and effective for early detection of depression and anxiety in adolescents in the primary care setting. The main, limiting factors for routine implementation included cost, the time required to complete the screening, and provider readiness. There is insufficient research that compared the efficacy of one validated, screening tool against another or how they relate to treatment outcomes. However, it is evident that early detection among adolescents can help to reduce morbidity and mortality that occurs from these illnesses by ensuring that effective treatment is initiated in the primary care setting.



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25th Annual Scholarship Symposium

Liselotte R. Wehrheim

Wehrheim was the oldest known living alum of Millersville University and died at the age of 103. She was a non-traditional student at Millersville and graduated with a bachelor of science degree in nursing at age 59. She was a practicing nurse into her 90s.

In 2008, at age 92, Wehrheim was interviewed for the University's magazine, "The Review." She said, "Millersville was a gift to me as a mature, older person. It was a wonderful experience. They accepted me, and it was a joy for me to be able to function on the level of 20-year-olds when I was more than twice their age."

Born in Germany, her parents provided her with a well-rounded education in Germany, France and England. During World War II, Wehrheim was wounded while serving as a military nurse in Poland and Russia. In 1955, she came to the U.S. to work as an interpreter for the U.S. State Department, using her fluency in German, French, English, Russian and Polish.

Back when she was a student at Millersville, she said that many people wondered why she went back to school so late in life. "You are never too old to learn," were her words of wisdom.

The money, from the estate of Liselotte R. Wehrheim, is used for scholarships for non-traditional nursing students. This transformational gift will fund the Liselotte R. Wehrheim Scholarship in Nursing Endowment, helping to prepare students for jobs in the growing healthcare industry.

Wehrheim's scholarship, the "Liselotte R. Wehrheim Scholarship in Nursing" is designed for students who have unusual or special circumstances affecting the completion of their education, such as simultaneously supporting or caring for a parent, child or spouse.



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