Iron Deficiency Screening Implementation for Patients with HFrEF
Rachel Kister, MSN, RN, Nicholas Bauder, BSN, RN, Brittany Bealer, BSN, RN, CVRN-BC

**PROBLEM INTRODUCTION**
Heart failure with reduced ejection fraction (HFrEF) patients with iron deficiency (ID) can experience fatigue, shortness of breath, and decreased exercise capacity. Leads to hospitalizations and frequent re-admissions. Up to 50% of all ambulatory patients with HFrEF have ID (von Haelting et al., 2019; McDonagh et al., 2018).

**LITERATURE REVIEW**

**Guidelines for HFrEF and Iron Deficiency (ID) Screening**
- ID = serum ferritin level 100–299 µg/L when TSAT < 20% (McDonagh et al., 2018; Charles-Edwards et al., 2019).
- NYHA classification is required for screening (AHA, 2017).

**Iron Replacement Therapy (IRT) and Inclusion Criteria**
- Studies show improvement in exercise capacity, NYHA classification, and QOL with IV IRT (Anand & Gupta, 2018; Anker et al., 2017).
- HFrEF, and serum iron levels.

**HF, ID, and Exercise Capacity**
- ID correlates with decreased exercise capacity, QOL, and poorer outcomes in patients with HFrEF (Elezaby et al., 2021; von Haelting et al., 2019).
- Participants showed significant improvements in exercise capacity and QOL after beginning IRT.

**HF, ID, and Hospital Admissions**
- HF continues to be the leading cause of hospitalization in patients >65 y/o (Ismahel & Isemhal, 2021; McDonagh et al., 2022).
- Rate of hospitalization for HF continues to rise.

**Screening Tools to Identify IRT Candidates**
- Algorithms have been developed by the ACC and ESC for IV IRT (von Haelting et al., 2019).
- Symptomatic HFrEF patients, NYHA II-III, Hgb < 15 g/dL, and ferritin level < 100 µg/L or between 100 and 299 µg/L with TSAT% < 20% (Lam et al., 2018).
- The patient must meet all three criteria to be considered for IV IRT.

* Studies: FERRIC-HF, CONFIRM-HF, EFFECT-HF, AFFIRM-AHF Trial (Anand & Gupta, 2018; von Haelting et al., 2019; Tsaczyzyn et al., 2021; Ponikowski et al., 2020).

**PROJECT METHODS**

**IMPLEMENTATION**
- Screening tool: metrics, LVEF %, Hgb, HCT, Iron Panel with TSAT, ferritin, last HF admission, NYHA score, & KCCQ-12.
- June 2023: Providers educated on screening tool and algorithm.
- Monthly follow-ups to assess progress and questions.
- July to December 2023: Final data collection & final evaluation in December.
- January 2024: Data analysis and evaluation.
- April 2024: Post-implementation discussion.

**IMPACT ON PRACTICE**
Both Cardiology clinics started to utilize the screening tool.

**Goals of treatment**
- Improved Quality of Life (QOL)
- Reduced Hospital Admissions
- Reduced healthcare costs
- Improved exercise capacity

**EVALUATION**
- Adoption and implementation of screening tool was slow
- IV iron infusion requires an infusion center referral
- Data collection on paper. EMR is the preferred method
- Could not order IV iron infusions under same patient encounter
- Cardiologists want to refer to Hem/Onc for IV iron infusions
- Carboxymaltose formula for IV iron replacement unavailable

**LIMITATIONS**
- Screening, diagnosis, and treatment were included in algorithm, a clear and concise way to evaluate labs.
- Providers utilized the screening tool on paper form for implementation.
- Data was collected, stored, and distributed in a binder at both locations.
- 15 total patients met inclusive criteria for screening for IV IRT at both cardiology clinics.
- Due to time constraints, providers did not document all screened patients.
- Patients had baseline depleted levels in TSAT%, HFrEF, and serum iron levels.

**CONCLUSIONS**
- A diagnosis of ID with HFrEF affects QOL, ADLs, and exercise capacity.
- Providers verbalized that the screening tool was easy to use.
- Clinics continue to utilize the screening tool and place referrals to Hem/Onc for outpatient IV iron infusions.
- Future DNP projects could implement screening in primary care.
EMR Templates for Age-Appropriate Well-Child Pediatric Visits
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PROBLEM INTRODUCTION
One suburban Midwest private, not-for-profit organization provides primary and preventive care to all ages with most patients of adult age.

Providers at the organization identified the need for pediatric well-child visit electronic medical record templates to be updated.

Goal was to develop up to date pediatric EMR templates that included age specific recommendations from the CDC and the AAP/Bright Futures.

Including accurate anticipatory guidance guidelines, developmental milestones, and immunization schedules to integrate into the well child visit EMR templates was vital.

LITERATURE REVIEW
Guidelines from the American Academy of Pediatrics (AAP)
Specific guidelines/recommendations for immunizations, anticipatory guidance, and developmental milestones.

Guidelines from Bright Futures
Screening recommendations from the periodicity schedule and guidelines/recommendations for health promotion in pediatrics.

Guidelines from CDC
Included guidelines/recommendations for well-child visits, immunizations, and developmental milestones.

EMR Best Practice
Information included benefits to including age-based milestones and anticipatory guidance into the EMR templates and the benefit to EMR templates in general.

PROJECT METHODS
Initial purpose: Create age-based well-child visit EMR templates for newborn through 18 years visits.

AAP, CDC, and Bright Futures current guidelines were used to create up-to-date EMR templates.

The templates were reviewed by providers and introduced into practice in paper charting format.

Information Technology (IT) department within the organization never responded to request to integrate the new templates into the EMR.

EVALUATION
• Evaluation of provider adherence was completed by doing a chart review
• New templates were used 5 times between July 10-August 10
• 5 pre-intervention charts and 5 post-intervention charts of similar age groups were reviewed.
• Data was collected on frequency of use of the new well-child templates and if the correct age template was used for each child
• Provider satisfaction was evaluated by completing interviews with the providers at the practice.
• The final outcome, an increase in patient and guardian education, was evaluated by completing a chart review before and after implementing the new templates

TIMELINE
• Edit templates
  May-June 2023
• Information provided of templates
  End of June 2023
• Early June 2023
• Share template with shareholder
• July 10-August 10
• Implement updated templates

IMPACT ON PRACTICE
18 newly revised and updated pediatric templates that could be used immediately were created.

Pediatric well-child visits now coincide with CDC and AAP recommendations on vaccinations, anticipatory guidance, and developmental milestones.

LIMITATIONS
For unclear reasons, IT was unable to upload new templates to the organization’s EMR.

Lack of direct access to the IT department

CONCLUSIONS
Well-child visits serve to monitor children’s health, growth, development, immunization status, and answer parent questions.

Chart review found that updated templates provided more information on CDC and AAP recommendations for each age group.

We are hopeful that IT will add our templates to the EMR to be available for future pediatric well child visits.

According to provider feedback, without integration into the EMR, template use may be overlooked.
Implementing Pain Management Policies and Procedures at a Rural Pain Clinic

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PROBLEM INTRODUCTION

Pain is a daily struggle for many individuals in this country. Unintentionally, people become addicted to pain medication and develop opioid use disorder (OUD) resulting in life-long struggles that can lead to death. In the United States in 2020 there were over 2.7 million people aged 12 and older with OUD, and 2.3 had prescription OUD (National Institute on Drug Abuse (NIDA), 2021).

The rural pain management clinic that the project was completed at had no policies or procedures in place for screening of patients, only did drug screens once a year, and did not have a contractual agreement for the patients to understand the guidelines for continued care.

LITERATURE REVIEW

Opioid use disorder is preventable with clear expectations and tools used in clinics. Contracts outline the physicians' expectations of the patient while being cared for in the clinic. Prescription drug monitoring system allows physicians to see if patient is getting other pain medications elsewhere. Regular urine drug screen to assess adherence • Monitor for other substance usage.

Opioid Risk Tool (ORT) assessment is the simplest screening tool:
• Male or female group
• 5 questions
• Age
• Personal hx of substance abuse
• Family hx of substance abuse
• Preadolescent Sexual abuse hx.
• Psychological disease hx.
• Results= low, moderate, or high risk for OUD

PROJECT METHODS

Administration of the Opioid Risk Tool (ORT)
Stricter urine drug screen (UDS) policies
Implementation of patient pain management contracts
Improved usage of Prescription Drug Monitoring System (PDMS)

EVALUATION

Staff hesitation
Improper ORT completion
Lack of urine drug screens
Contract terms not followed
Provider reluctance to change

CONCLUSIONS

Limitations

ORT allowed the provider to assess patients at risk for developing OUD and tailor treatment to their risk.

The clinic should increase the use of random UDS to determine which patients are at risk for addiction or unintended overdose.

The provider needs to be upholding the purpose of signing contracts with patients, and not allow "second chances."

IMPACT ON PRACTICE

Patients needed evaluation before starting pain medication.

ORT showed that many patients could be at risk of developing OUD.

Urine drug screening was not improved during implementation.

PDMS was used effectively by the staff to check patient's prescription medications.

Contracts were signed but not held to terms due to lack of random UDS.
**PROBLEM INTRODUCTION**

- More than 40% of children living in low-income countries worldwide are at an increased risk of not reaching developmental milestones (Gil et al., 2020).
- Identifying children with developmental delays on short term medical missions (STMM) is often a difficult task due to lack of pediatric experience and unfamiliarity with cultural norms.
- Medical providers serving with one non-for-profit medical mission agency reported difficulty catching delayed milestones in children between the ages of 1-3 years old in Central America due to lack of pediatric experience in practice.
- Due to the lack of experience and confidence in identifying pediatric developmental milestones appropriately, developmental delays in pediatric patients on STMMs continue to go missed without any intervention.

**LITERATURE REVIEW**

- Low socioeconomic status is directly related to a child’s cognitive ability (Ibáñez-Alfonso et al., 2021).
- Guatemalan children, particularly children living in poverty, significantly underperformed in the areas of language, fine motor, and attention (Ibáñez-Alfonso et al., 2021).
- Identification of developmental delays and early intervention is necessary to prevent children from falling further behind.
- The Survey of Wellbeing of Young Children is a child development screening tool and has been shown to accurately detect developmental delays, especially language skill delays among Hispanic children (Gerdes et al., 2019).
- Interactive reading is one of the most effective methods to prevent delays and improve cognitive development in childhood especially if started early, frequently, and cooperatively with an adult (Protzko et al., 2013).

**PROJECT METHODS**

- In depth development of literature review containing current growth and developmental milestones for children between the ages of 1 and 3 years.
- Obtained stakeholder feedback and approval for project methods and supporting documents, followed by IRB approval.
- A self-paced learning module which covered pediatric developmental milestones for ages 1-3 years old was created for the STMM team to take prior to their December 2024 trip.
- Tutorial on how to use the module was presented to providers during a pre-trip meeting a few weeks before the STMM was set to begin.
- Information on SWYC screening tool, reading interventions for delayed children, and pre-post survey expectations were given before STMM at pre-trip meeting.

**EVALUATION**

- Module Quiz Results
  - Pre-Quiz: 73%
  - Post-Quiz: 94%

**IMPACT ON PRACTICE**

- Immediate Clinical Impact: 100% of responders reported that they feel they will be able to utilize information learned in this project when moving forward in practice.
- Several children were identified as being developmentally delayed, and educational resources provided to them during clinic days, including books and crayons, aim to help improve their speech, language development, and fine motor skills.
- Roughly 120 reading booklet and crayon packets were created for this trip, and around 100 were handed out to children who were developmentally delayed during this STMM. The remainder were given out at a later trip.

**LIMITATIONS**

- Low health literacy levels in patient population
- Difficult to complete the SWYC screening tool appropriately, even when translated to Spanish.

**CONCLUSIONS**

- Self-paced learning module created to help improve medical professionals' knowledge of pediatric developmental milestones.
- Feedback provided from responders suggested that the educational module, as well as the books provided to the pediatric patients screened, were beneficial in both identifying and improving developmental delays.
Establishing Community Connections For A New Mobile Health Unit
Shunera Wells BSN, RN
Southern Illinois University BSN

PROBLEM INTRODUCTION

- Mobile health units have recently gained popularity to decrease health disparities within communities.
- Healthcare disparities include finances, low health literacy and lack of transportation.
- An urban university primary care clinic was awarded a federal grant for a mobile health unit to address health disparities in the communities served by the clinic.
- The mobile care clinic had no established community partnerships to provide parking locations and promotion of mobile unit services prior to this project.
- In addition, the types of health services desired by the community were unknown.

LITERATURE REVIEW

- Mobile care clinics have increased patient compliance and filled social and economic gaps within rural and urban care communities (Bertincello et al., 2020).
- About 41% of care provided by mobile units is primary and 47% is preventative (Malone et al., 2020).
- The most frequent services provided by mobile health units include childhood immunizations, obesity screenings, blood pressure screenings, flu vaccinations, and cholesterol screenings (Mobile Clinic Impact Tracker, 2023).
- A European study used to determine mobile health clinic effectiveness for patients at risk for chronic diseases, found mobile units increased patient compliance in the management of newly diagnosed disease (Bertincello et al., 2020).
- Bertincello et al. found a prevalence rate of 27.8% undetected hypertension, 37.5% hypercholesterolemia, and 5% diabetes among people who utilized a mobile health unit for screening services.

EVALUATION

- The quality of information gained from community surveys sent out by the clinic.
- A review of patient demographics and diagnostic databases from the brick and mortar clinic.
- Most common zip codes served by the clinic were Cahokia (62206), Fairmount City (62201), Collinsville (62234), Granite City (62040), and East St. Louis (62201, 62203, 62204, & 62205), which were used to identify potential community partnerships.
- A clinic EMR review found the most frequent ICD-10 Codes were: Encounter for screening for infections with predominantly sexual mode transmission Z11.3, Type 2 diabetes mellitus E11.8, Mild intermittent asthma J45.20, Hypertension I10, and Tobacco Use Z72.0.
- Quality and number of community partnerships formed during project implementation.

IMPACT ON PRACTICE

- Information gained from community surveys sent out by the clinic, helped determine and identify patients health care needs.
- A review of patient demographics and diagnostic databases from the brick and mortar clinic.
- A clinic EMR review found the most frequent ICD-10 Codes were: Encounter for screening for infections with predominantly sexual mode transmission Z11.3, Type 2 diabetes mellitus E11.8, Mild intermittent asthma J45.20, Hypertension I10, and Tobacco Use Z72.0.
- Community Desired Disease Management

CONCLUSION

- Survey sample size provided useful data and insight into community healthcare needs but was small.
- Future projects are needed to assess community needs within St. Clair County.
- More partnerships within the city of East St. Louis are needed.
- Other areas that the clinic serves that could benefit from services include Cahokia, Fairmount City, Collinsville, and Granite City.
- Mobile health one day will become a great asset to these vulnerable population groups and decrease disparities within the healthcare system.
Increasing Oral Health in A Midwest Elementary School: Quality Improvement Project
Dennezcha “Dee” Young, RN, BSN
Southern Illinois University Edwardsville

PROBLEM INTRODUCTION
The purpose of this DNP project was to offer oral health services access and oral health literacy to children in a low-income suburban community in the Midwest through their elementary school.

LITERATURE REVIEW
In the United States (US), many patients, especially those with low income, face barriers to accessing oral healthcare (Northridge et al., 2020; Singh et al., 2019).

Underprivileged children often receive suboptimal oral health care in the emergency department, which carries a higher risk of complications (Bersell, 2017).

Methods
- **Stakeholder Interviews**: Interviews with SIU faculty, school officials, and oral health program leaders.
- **Oral Health Presentations**: Provided to children in class by the DNP project student on oral health topics to classes.
- **Improving Program Participation**: Digitalization of permission slip embedded in school registration system.

Evaluation
- No availability of school officials for stakeholder interviews
- Not enough time in school day for educational presentations
- Oral health program participation increased by 8%, mostly in second grade.

Impact on Practice/Limitations
- Automating the permission slip resulted in 8% increase in participation
- Second grade oral exam required by law
- Oral health stakeholders complained about inefficiency of school interface with the program
- It became clear that the school lacked capacity to support this program

Conclusion
Schools are not a viable setting for effective oral health programs due to a lack of resources. Larger scale change is needed to address the lack of dental services for underserved communities.

References


Education for Healthcare Professionals on Protocol for Prostate Cancer Screenings on Inmates
Heather Ackerman, BSN, Doctoral Student and Randi Ballard, BSN, Doctoral Student
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PROBLEM INTRODUCTION

- Higher stress levels during incarceration contribute to the inflammatory response resulting in a higher incidence of cancer among imprisoned individuals (Aziz et al., 2021).
- There is currently no uniform protocol for screening prisoners during their incarceration for prostate cancer, but these screenings are available to inmates for health maintenance at both federal and state prisons (Aziz et al., 2021).
- Southern Illinois University School of Medicine reached out and requested assistance regarding the need for education throughout the Illinois Department of Corrections on the importance of PSA screenings. The initiatives set forth by this project are supported by the Illinois State Legislature (Raba, 2021).

LITERATURE REVIEW

- Upwards of 68.4% of incarcerated men receive no medical screenings during their time served (Aziz et al., 2021).
- The United States Preventative Services Task Force (USPSTF) recommends that all men aged 55-69 be informed of the harms and benefits of receiving PSA testing. (U.S. Preventive Services Task Force, 2018).
- Although different approaches have been made toward the development of health promotion standards in incarcerated individuals, more research is needed to provide adequate evidence-based information (Woodall & Freeman., 2019).

EVALUATION

**Evaluation Explanation**

**Question 1:**
- o Pre-survey 58.3% of the participants were unaware of the order placed in the case of Lipper vs. Jeffreys.
- o After education post-survey 41.6% (n=5) of participants selected strongly disagree or somewhat disagree indicating an increased perception of sufficient training

**Question 2:**
- o Pre-survey, 33.3% of healthcare professionals were not confident in their ability to recognize risk factors or symptoms of prostate cancer.
- o After education, 50% (n=6) of participants on the post-test were confident in their ability to recognize risk factors or symptoms of prostate cancer

**Question 3:**
- o Pre-Survey 73% of the participants agreed that early prostate cancer detection could improve men’s survival.
- o After education 100% of the participants agreed that early prostate cancer detection could improve men’s survival.

**Question 4:**
- o Pre-Survey 100% of participants answered False to “A lack of knowledge among healthcare practitioners” as a perceived barrier.
- o After the education session 33.3% (n=4) believed the same statement to be false. This statement identified a willingness to be educated on the subject.

CONCLUSIONS

- Members of the staff were very interested and engaged in the information presented. The administration gave positive feedback regarding the presentation
- The intervention educated healthcare staff at a maximum-security Illinois Department of Corrections facility. After providing the presentation and discussing it with the respondents, it was clear that the education provided was needed and essential.
- Future education in-service with updates for policies would increase staff knowledge and improve attitude toward preventative screening, specifically prostate cancer screening for incarcerated males.

LIMITATIONS

- Communication discrepancies
- IDOC restrictions
- Lack of resources

CITATIONS

- Woodall, J. & Freeman, J. (2019). Providing PSA screening services as recommended by the U.S. Preventative Services will decrease upstaging and mortality of prostate cancer (Raba, 2021).
Implementation of Electronically Integrated Pediatric Screening Templates
Kayla Seed, BSN
Southern Illinois University Edwardsville

**PROBLEM INTRODUCTION**
- Health History, Demographics, Medications, Radiology, Laboratory studies, Immunizations
- Patient interviews during appointments
- Research-based decisions and recommendations
- reviewed every 3 years
- DSM-V criteria: Depression, Anxiety, ADHD, and Concussion screening
- Lack of evidence-based templates when screening for depression, anxiety, ADHD, and concussion.
- The lack of templates may lead to missed opportunities to promote improved patient outcomes and proper documentation to support DSM-V criteria.

**EHR Template**
- Reduce errors.
- Accurate documentation following DSM-V criteria.
- Develop and track diagnoses quickly

**Improved Outcomes**
- Improved Patient safety.
- Decreased medication errors and adverse outcomes
- Enhances provider quality of life, satisfaction, and increases face to face time with patients

**PROJECT METHODS**
- IRB approval through SIUE.
- Pre-survey (Likert-style) via email to 4 participants
- Pre-Intervention education via Zoom session
  - Condition-specific templates embedded into the EHR to guide history-taking, exam, and documentation.
- Post-survey (Likert-style) via email to 4 participants
- Multiple choice survey via email to 1 participant to evaluate knowledge of and current patient population
- Data Analysis

**LIMITATIONS**
- Small clinic size in a rural setting.
- Lack of participation by providers.
- The provider who participated in the intervention works 2 days a week, which resulted in limited data collection.

**IMPACT ON PRACTICE**
- Evidence-based guideline-driven templates can enhance providers' documentation and improve patient outcomes.
- Improved the ability to track a patient's progress over time.
- Patient's experience more comprehensive care with more face to face time with the provider.

**LITERATURE REVIEW**

**Evidence-Based Clinical Guidelines**
- Children exhibiting symptoms of sadness, irritability, anhedonia (not wanting to do things they once enjoyed), change in appetite, change in sleep patterns, inability to focus, or showing signs of self-harm need to be evaluated for depression (Centers for Disease Control and Prevention, 2023).
- Anxiety should be screened in children that are between the ages of 8 and 18, and depression should be screened in children between 12 to 18, according to the United States Preventive Service Taskforce (Centers for Disease Control and Prevention, 2023).

**EHR Templates**
- Templates are shown to improve patient care and provide a means to document accurately and consistently (Tanello, 2020).
- Template use collects, prepares, and organizes data to obtain all the necessary information to make a comprehensive assessment during the encounter and to streamline the documentation process, which reduces time spent on the computer (Franklin, 2021).
- A study showed that by incorporating DSM-V criteria in an EHR template, improved documentation by the provider by 50% (Gibson-McGloin & Pike, 2023).
- Trigger tools reduce unwanted patient outcomes and errors and improve patient safety with the use of data entry specific to a disease process (Murphy, 2019).

**Depression**
- One in three high school children in 2019 stated they felt sad and hopeless, and one in five students contemplated suicide (Centers for Disease Control and Prevention, 2022).
- Data from 2013 to 2019 show one in five children aged twelve to seventeen have a risk of depression and suicide (Centers for Disease Control and Prevention, 2022a).
- The PHQ-2 and PHQ-9 are supported by the American Psychological Association, and they show that these assessments are consistent and reliable tests that assess depression in multiple settings and across vast age groups (American Psychological Association, 2020).

**Anxiety**
- Walter et al. (2020) showed that less than half of youth who require care for anxiety receive it, 9% of youth with a reported anxiety disorder have had suicidal ideation, and 6% have attempted suicide despite the available treatments due to a lack of mental health clinicians.
- The GAD-7 tool consists of seven questions to diagnose anxiety in the primary care setting (Sapra et al., 2020). A study researched the validity of the GAD-7 among college students and showed consistency, versatility, and reliability when assessing for anxiety among a vast population (Dhila et al., 2021).

**ADHD**
- ADHD is considered a lifelong condition in 2016, a survey showed that 9.4% of children in the United States are diagnosed at some point in their life, causing this to be the most common behavioral issue that children are dealing with (Wolraich et al., 2019).
- The Conners rating scale shows a 78% accuracy rate in diagnosing ADHD in children regardless of which form is used (Legg, 2023).

**Concussion**
- Children that experienced symptoms of a concussion or brain injury overall in 2020 were 6.8%, and of the 6.8%, only 3.9% sought care from a healthcare professional (Black & Zablotsky, 2021).
- The ACE assessment tool is an effective tool for evaluating the initial injury and tracking a patient's recovery with a numerical number (Halsted et al., 2018).

**EVALUATION**
- Data analysis represent the sole provider in the intervention
- Likert-style survey analysis after implementation
- 66% improvement in documentation satisfaction
- 33% improvement in note quality and the time taken to document
- 20% improvement in thoroughness and organization of the note
- 30% overall improvement in notes

**CONCLUSIONS**
- Implementing evidence-based templates into the EHR provides current guidelines for providers to utilize during patient encounter.
- Templates provide the necessary documentation criteria to support the diagnosis.
- A larger sample size and provider buy-in would allow for additional data to support and show statistical evidence that templates benefit primary care.
PROBLEM INTRODUCTION

Perinatal and postpartum depression (PPD) can negatively affect both mother and child through breastfeeding, caregiving, and relationship strain with the child (Madlala & Kassier, 2018).

Current recommendations vary on when to implement screening tools for PPD and what screening tool to utilize.

Various screening tools available, but the Edinburgh Postnatal Depression Scale (EPDS) has the most data and research to validate the use of this screening tool.

Screening can be beneficial, and initiating treatment or referral to a mental health provider can be even more valuable (ACOG, 2018).

PROJECT METHODS

- IRB approval was not indicated for this project.
- A Likert scale style pre- and post-intervention questionnaire was used to evaluate the impact on the organization’s practice.
- After the pre-intervention questionnaire, an educational session was held about current PPD screening guidelines and treatment protocols and the EPDS screening tool was used and administered to perinatal and postpartum women.
- After the intervention phase was completed, a post-intervention questionnaire was again distributed to employees to assess their attitudes towards screening and opinions on the importance of screening.

LITERATURE REVIEW

- Perinatal and postpartum depression (PPD) can negatively affect both mother and child through breastfeeding, caregiving, and relationship strain with the child (Madlala & Kassier, 2018).
- Current recommendations vary on when to implement screening tools for PPD and what screening tool to utilize.
- Several screening tools available, but the Edinburgh Postnatal Depression Scale (EPDS) has the most data and research to validate the use of this screening tool.
- Screening can be beneficial, and initiating treatment or referral to a mental health provider can be even more valuable (ACOG, 2018).

IMPACT ON PRACTICE

- EPDS Screening tool:
  - Can be implemented in a variety of clinical settings
  - Can lead to treatment protocols based on EPDS results
  - Increased providers’ comfort levels in identifying and addressing PPD
  - Can lead to further medical management

CONCLUSION

- EPDS utilized: 19 encounters

Pre intervention: 36% felt strongly comfortable addressing mental health, 45% felt extremely comfortable identifying symptoms of depression, 55% extremely likely to screen

Post intervention: 73% felt strongly comfortable addressing mental health, 73% felt extremely comfortable identifying symptoms of depression, 82% extremely likely to screen

RECEIVED FROM:

Allison Herrmann, RN, BSN and Lori Deibel, RN, BSN
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IMPLEMENTATION OF MENSTRUAL CYCLE AND FERTILITY AWARENESS EDUCATION FOR COMMUNITY HEALTHCARE PROVIDERS SERVING GUATEMALAN WOMEN

Alissa Struble, BSN, PHN, MSN
Southern Illinois University Edwardsville

PROBLEM INTRODUCTION

-Teenage pregnancy in developing countries contributes to poverty and increases maternal and fetal morbidity and mortality (Plan International, 2022).

-In 2018, the estimated number of teenage pregnancies in Guatemala was higher than in other Central American countries (Poelker & Gibbons, 2018).

-By 2020, the number of pregnant Guatemalan adolescents (ages 15-19) was estimated to be over 105,000 (Gomez et al, 2020).

-Measures must be taken to reduce these statistics as teenage pregnancies contributes to multiple comorbidities.

LITERATURE REVIEW

-Barriers to Fertility Awareness
  -Lack of Knowledge
  -Poverty
  -Religion
  -Gender Inequality
  -Decreased Access to Electronic Devices
  -Health Literacy
  -Fertility Awareness Interventions
  -Standard Days Method®
  -CycleBeads®
  -Empowerment of Women

PROJECT METHODS

-Quality improvement project design was presented and approved by the primary stakeholder. IRB was submitted for the project, and approval was received.

-Reproductive education intervention was constructed, along with a 13-question Likert scale questionnaire.

-Twenty two participants were asked to take part in this quality improvement project in the quality improvement project. Fourteen participants were volunteer healthcare providers from the United States, and eight were female volunteers who reside or work at a Guatemalan rural healthcare clinic.

-Participants in the project were given the pre-education Likert scale questionnaire to complete before education.
  -Lead investigator educated participants about the Standard Days Method® (SDM) and CycleBeads® via PowerPoint and verbal explanation. Interested and willing participants created CycleBeads® necklaces.

EVALUATION

LIKERT SCALE QUESTIONNAIRE

Q1. I believe reproductive education should be taught in public schools.
Q2. Reproductive education in schools is helpful towards preventing domestic violence, stillbirth, and preterm delivery associated with teenage pregnancy.
Q3. I believe reproductive education for teenagers promotes sex-related problems.
Q4. I believe both young men and young women should be taught about reproductive education to increase body awareness and sexual autonomy.
Q5. I believe reproductive education should be taught and discussed outside of schools.
Q6. I believe teenagers should obtain most of their reproductive education from the participants, grandparents, and other family members.
Q7. I believe teenagers should obtain most of their reproductive education from healthcare providers.
Q8. I believe there are increased health risks associated with teenagers becoming pregnant.
Q9. I believe women have control over when they’re able to become pregnant by monitoring their menstrual cycles.
Q10. I am comfortable discussing reproductive health topics, women’s menstrual cycles and fertility with others.
Q11. I have a good understanding of a woman’s menstrual cycle and how it affects a woman’s fertility.
Q12. I understand the timeframe when a woman is fertile during her monthly cycle.
Q13. I am comfortable teaching others about a woman’s menstrual cycle and how it affects fertility.

CONCLUSION

-Three hundred CycleBeads® kits were distributed to the participants for use in patient encounters during and after this global service trip.

-CycleBeads® were received positively by Guatemalans, as was evidenced by posts on social media after education was complete.

-Further data collection is necessary to determine if the education on the menstrual cycle, Standard Days Method®, and CycleBeads® provided had long-term benefits to Guatemalan women long term.

-Research completed in other third-world countries affirms that instructing women on fertility awareness empowers them and gives them more control over the timing of their pregnancies.

-Ultimately, Standard Days Method®, and CycleBeads® education will impact the rate of teenage pregnancy within rural Guatemalan communities, which could lead to better health outcomes for child-bearing women and their children.