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Implementation of the Edinburgh Postpartum Depression Screening Tool to Screen Mothers for Postpartum Depression in the Pediatric Setting

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UNIVERSITY OF SAN DIEGO
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DOCTOR OF NURSING PRACTICE PORTFOLIO

by

Vera Nikolaychuk, BSN, RN

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Documentation of Mastery of DNP Program Outcomes

Final Manuscript

Implementation of the Edinburgh Postpartum Depression Screening Tool to Screen Mothers for Postpartum Depression in the Pediatric Setting

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Author Note

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Abstract

Postpartum depression (PPD) is a mood disorder affecting mothers after childbirth. Research estimates that approximately 11%-18% of mothers in the United States and one in seven women in California suffer from perinatal mood and anxiety disorder (PMAD) such as postpartum depression. Untreated postpartum depression not only costs United States billions of dollars in healthcare expenditure annually, but also leads to health complications for both mother and baby. The American Academy of Pediatrics (AAP) recommends screening for PPD at 1-,2-,4-, and 6-month well visits. A screening and referral program were implemented in a pediatric setting to identify mothers at risk for PPD. fifty-nine mothers were screened during a 5-month period, none were missed. Seventeen of fifty-nine screened positive for depression. Evidence shows that screening is possible in a pediatric setting.

Keywords: postpartum depression, postpartum depression screening, pediatric setting, well-child visits

Background and Significance

Postpartum depression (PPD) is a mood disorder occurring after childbirth, which is a "crippling mood disorder that erodes away at the joy and happiness of new mothers" (Hansotte et al., 2017, p. 2). According to the ICD-10 classification, PPD is described by a period of depressed mood lasting at least 2 weeks accompanied by other symptoms such as reduced energy, appetite and sleep disturbance, loss of interest in the baby, persistently low mood, and feeling overwhelmed (Tolossa et al., 2020). PPD is one of the most common complications during the postnatal period affecting one in seven women (American College of Obstetricians and Gynecology, 2018).

Untreated postpartum depression costs the United States billions of dollars in healthcare expenditures annually (Clark et al., 2019). Luca et al. (2020) found the annual average cost of untreated PPD for a mother-child pair is estimated to be $31,800. In addition to societal burden, postpartum depression is associated with long-term health complications for both mother and infant. Various studies indicate that postpartum depression leads to poor infant growth, and increased cognitive, emotional, and behavioral problems (Tolossa et al., 2020).

Screening for PPD using a tool such as the Edinburgh Postpartum Depression Scale (EPDS) is critical during the postnatal period (Cox et al., 1987). Therefore, the American Academy of Pediatrics (AAP) recommends screening mothers during 1-, 2-, 4-, and 6-month well-child visits (Earls et al., 2019). Pediatric providers see mothers more frequently than any other provider during the child's first year of life and are therefore better suited to screen mothers for PPD (Waldrop et al., 2018). Nonetheless, literature shows that nearly 50% of mothers remain undiagnosed (Langdon, 2022).

Purpose

The purpose of this evidence-based project was to implement a postpartum depression screening and referral program in a pediatric clinic in collaboration with pediatricians at a small, private pediatric clinic located in Southern California. The following PICOT question was proposed: In mothers who are postpartum (P), does the implementation of screening mothers using the Edinburgh Postpartum Depression Screening (EPDS) tool (I) compared to current practice (C), increase identification and referrals for treatment (O) over a 5-month timeframe (T)?

The goals of screening were to identify mothers who are at high risk for PPD and promote early treatment. The aim of screening and early recognition of PPD symptoms was to reduce the negative effects that PPD has on the development of the newborn and well-being of mothers. Screening mothers for PPD in a pediatric setting is important to pediatric providers as it directly and indirectly affects the welfare of mother and child (Waldrop et al., 2018).

Evidence-Based Practice Model

The Ottawa Model of Research Use (OMRU) was developed by Graham and Logan in 1998 and is a six-step method that unites decisions and actions to implement change and continuity-of-care across various organizations and clinical settings (Melnyk & Fineout-Overholt, 2019). The OMRU model is centered on the representation of an interdisciplinary framework that allows input from the users and is designed as a feedback loop allowing regular reflection on the implemented change. Screening for postpartum depression is imperative for early recognition, continuity of care, and improved treatment outcomes. The OMRU is especially beneficial in guiding the implementation of continuity of care (Graham & Logan, 2004). Because

this evidence-based practice project focused on continuity of care at a unit level and not the entire healthcare system, the straightforwardness of this model was fitting for an outpatient clinical setting. The OMRU model focuses on health promotion by recognizing the importance of a broad approach. It is designed to be collaborative, recognizing persons of authority to implement change, clearly identifying the innovation and potential adaptors, and evaluating the outcome. One of the major strengths of this model is that it can be applied at any level varying from individual to organizational level (Graham & Logan, 2004).

Literature Review

To comprehend the extent of the problem and to develop the evidence-based project, a literature review was conducted. Databases used to search for recent literature included the Cochrane Library and PubMed. The following keywords were used to search the database: "postpartum depression," "screening for postpartum depression," "cost of postpartum depression," "primary-care and postpartum," and "postpartum and pediatrics." A total of 123 potential articles were identified. Filters were added to identify articles published in English, full-text, and free full-text articles.

Upon removing duplicate articles and irrelevant literature, 47 abstracts were reviewed. Of those articles, 27 articles were further evaluated. The term "postpartum depression" generated 25 relevant results, "screening for postpartum depression" generated six articles, "cost of postpartum depression" generated six articles, "primary-care and postpartum" generated four articles, and "postpartum and pediatrics" generated 11 articles. The AAP and American College of Obstetricians and Gynecology have published guidelines for screening and recommendations for postpartum depression management (Earls et al., 2019). The recommendations published

provided the foundation for this evidence-based project, screening mothers for PPD at the 1-, 2-, 4-, and 6-month well-child visits.

Upon review of literature, there was ample research supporting the use of a validated screening tool such as the EPDS. A systematic review published in 2017 determined that a pediatric primary clinic is a practical and effective place to implement the EPDS tool to screen mothers for postpartum depression (Zee-van den Berg et al., 2017). A study by Wilkinson et al. (2016) showed that screening mothers using the EPDS was a cost-effective tool which yielded better results and decreased annual care cost for postpartum depression. In addition, Epperson et al. (2020) looked at the healthcare utilization and costs associated with postpartum depression.

Two studies looked at various factors associated with postpartum depression and found that mothers who had a prior history of depression had higher rates of postpartum depression (Tolossa et al., 2020). One qualitative study using telephone interviews assessed mother's perspectives on postpartum depression screening in a pediatric setting (Canty et al., 2019).

An additional study looked at the challenge's pediatricians face when screening mothers for postpartum depression in a pediatric setting. They found that although pediatricians can identify PPD with screenings, they are not in a position to initiate treatment as this must be facilitated by adult providers (Bauer et al., 2017). Studies indicated that despite the AAP's recommendations to screen mothers for PPD in a pediatric setting, more than half of pediatricians do not implement the screening due to concerns for liability because the mother is not the patient during the well-child check (Earls at al., 2019).

Evidence supports the need for postpartum depression screening. Untreated PPD in mothers affects both the mother and the infant (Waldrop et al., 2018). The literature review supported implementation of the screening program and the basis for educating the providers.

Methods

The setting for this project was a small private pediatric clinic which had no postpartum depression screening or referral process in place. Figure 1 displays the steps of the screening and referral program. After the need for practice change was identified and authorization was received from the pediatric practice, IRB approval was obtained from the University of San Diego (USD). To develop a referral and safety plan, a thorough search of community resources and evaluation of multiple resources was done to formulate a list of agencies that best fit the population seen in this pediatric clinic. An educational session was held to explain the importance of this project and the necessity of implementing a screening program. The EPDS tool was chosen and added to the check-in forms completed on a tablet. The EPDS tool has scores ranging from 0–30. Figure 2 displays the EPDS tool. The program timeline was set to 5 months.

Mothers were screened using a tablet at check-in during 2-, 4-, and 6-month well-child visits. Providers evaluated the results prior to entering the room for each child check or after the appointment and discussed results either during the visit or with telephone follow-up. All mothers were questioned about any previous history of depression, and everyone was offered community resources. A screening score of eight or higher on the EPDS was identified as "probable depression" and further evaluation was warranted. Mothers who scored eight or higher on EPDS were additionally assessed for existing risk of self-harm and were referred for care.

Ethical Considerations

This project was approved by the Institutional Review Board of USD. Approval letters were received from the provider and clinical mentor at the pediatric practice. A letter of support was received from the faculty advisor. Upon receiving IRB approval and support letters from the pediatric practice and faculty advisor, the PPD screening was added to the check-in forms. Data were securely stored observing IRB requirements and with no protected health information.

Results

Prior to the implementation of this screening and referral program, no formal screening for postpartum depression was done in this clinical setting. During the 5-month implementation period (August-December), a total of 59 individual mothers were screened using the EPDS tool during a 2-, 4-, and 6-month well-child check. All mothers were screened, and no one was missed. Because the program ran over a 5-month period, twenty-seven percent (16) of the 59 mothers screened received a screening multiple times either during 2- and 4- month or 4- and 6-month visit.

The total number of mothers screened per visit is displayed in Figure 3. A score of eight or less was considered a negative (low risk) result. A score greater than eight was considered positive requiring referral. Of the 59 mothers screened, 17 had scores of eight or higher. All mothers, regardless of score, were offered information on community resources.

Each mother was asked about their previous history of mental illness regardless of the screening score. Additional questions were inquired regarding the mother's age and number of pregnancies. The purpose of these questions was to identify the best way to implement PPD screening in a small practice with limited resources. Of the 17 participants who screened high on

the EPDS screening, ten had a history of depression and were already receiving mental health services. An additional seven mothers had no previous history of depression.

The screening and referral program was successful in screening 100% of eligible mothers during the project time period. Positive feedback was received from mothers regarding the screening. One mother became very tearful, stating gratitude to the provider during a 4-month well visit with her infant. Another mother of twins called the clinic a week later after their appointment to express great appreciation for the screening as well as resources provided. Many mothers communicated appreciation to the providers for taking a few minutes during the appointment to assess their mental health and offer community referrals. Mothers who were screened multiple times expressed gratitude to providers and did not express concerns about being screened at more than one visit. This project was very well received by mothers and providers and can be replicated in other pediatric clinics.

Discussion

Results of this evidence-based project validated the current recommendations for screening mothers for postpartum depression in a pediatric setting. Of the mothers screened, 29% of mothers (17/59) screened positive for PPD. Mothers with a previous history of depression had significantly higher scores at each visit. It is known that 11%–18% of mother's nationwide experience PPD symptoms after childbirth with prevalence estimated to be double in low-income and adolescent mothers (Earls et al., 2019). One of the possible explanations for a higher percentage than described in the AAP policy statement is the socioeconomic status of the patients and families in this practice.

The cost benefit analysis of implementing this project considered direct and indirect expenses. Research found that the average annual healthcare expenditure per mother-baby pair

with PPD is $31,800. This cost is borne by society as a whole (Luca et al., 2020). The program costs included educational material and provider time with a total costing the clinic $1,183.54. The project benefit to society after implementing a screening tool in this pediatric setting was noteworthy. Of the fifty-nine mothers screened, seventeen required referrals which were projected to have nearly a half a million-dollar benefit to society. For every dollar that was spent, there was an estimated $456.76 savings. The cost of this project was minimal when compared with annual healthcare expenditures and benefit to society.

Overall, the screening was highly appreciated by mothers and showed improvement in the PPD screening in this clinical setting. The staff at this clinic were very open to incorporate a screening into the check-in process. Multiple conversations were with providers to discuss the various screenings available and why EPDS was chosen over other validated tools. A barrier faced was some difficulty in convincing the providers to use the EPDS tools which consists of 10 screening questions instead of shorter screening tools. The Patient Health Questionnaire-2 (PHQ-2) only has two questions or a Patient Health Questionnaire-9 (PHQ-9) which has nine questions. EPDS tool was chosen above other tools because it addressed the anxiety component of PMAD as well as the depressive symptoms and suicidal thoughts. Unlike the EPDS, the PHQ-2 and PHQ-9 only address the depressive symptoms and suicidal ideation. Another challenge faced was provider apprehension in implementing a new screening with no referral program in place. Therefore, prior to implementation of the screening we developed a referral and safety plan. One of the biggest barriers was finding appropriate community resources, there are many web links, hotlines, and community groups available some of which were not appropriate for this population.

Conclusions

In conclusion, screening mothers for PPD during the well-child visit is possible and should be standard of care. The EPDS is a valid tool to use in a pediatric setting. Before implementing this project, pediatric clinics must have a referral process in place. Also, honest and open communication between providers and mothers is key to early recognition of PPD. With the implementation of this screening, 100% of mothers were screened.

Implementation of this evidence-based project improved the screening and referral process in this pediatric setting. The front office staff was able to incorporate the screening form as part of the check-in documents without difficulty. Providers reviewed results with mothers during the visit and provided community referrals. Findings of this project were consistent with literature that PPD screening using the EPDS tool is realistic and beneficial in a pediatric setting (Emerson et al., 2018; Magonia & Schoening, 2017; Russomagno & Waldrop, 2019). Early screening and identification of mothers with postpartum depression is necessary to decrease effects of PPD and improve the mother-baby bonding experience.

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Figure 1

Project Implementation Steps

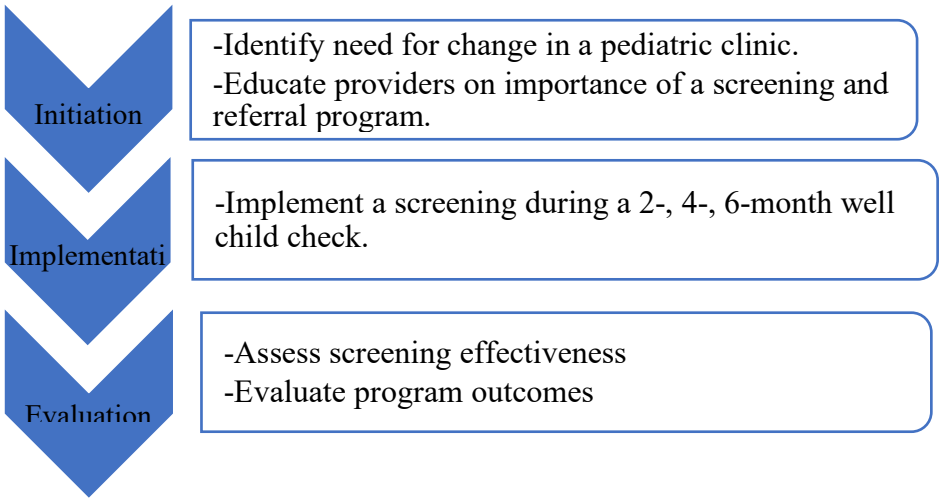


Figure 2

Edinburgh Postpartum Depression Screening Tool

Edinburgh Postnatal Depression Scale[1] (EPDS)

Name: _____ Address: _____

Your Date of Birth: _____ _____

Baby's Date of Birth: _____ Phone: _____

As you are pregnant or have recently had a baby, we would like to know how you are feeling. Please check the answer that comes closest to how you have felt **IN THE PAST 7 DAYS**, not just how you feel today.

Here is an example, already completed.

I have felt happy:
- ☐ Yes, all the time
- ☒ Yes, most of the time — This would mean: "I have felt happy most of the time" during the past week.
- ☐ No, not very often — Please complete the other questions in the same way.
- ☐ No, not at all

In the past 7 days:

1. I have been able to laugh and see the funny side of things
   - ☐ As much as I always could
   - ☐ Not quite so much now
   - ☐ Definitely not so much now
   - ☐ Not at all

2. I have looked forward with enjoyment to things
   - ☐ As much as I ever did
   - ☐ Rather less than I used to
   - ☐ Definitely less than I used to
   - ☐ Hardly at all

*3. I have blamed myself unnecessarily when things went wrong
   - ☐ Yes, most of the time
   - ☐ Yes, some of the time
   - ☐ Not very often
   - ☐ No, never

4. I have been anxious or worried for no good reason
   - ☐ No, not at all
   - ☐ Hardly ever
   - ☐ Yes, sometimes
   - ☐ Yes, very often

*5 I have felt scared or panicky for no very good reason
   - ☐ Yes, quite a lot
   - ☐ Yes, sometimes
   - ☐ No, not much
   - ☐ No, not at all

*6. Things have been getting on top of me
   - ☐ Yes, most of the time I haven't been able to cope at all
   - ☐ Yes, sometimes I haven't been coping as well as usual
   - ☐ No, most of the time I have coped quite well
   - ☐ No, I have been coping as well as ever

*7 I have been so unhappy that I have had difficulty sleeping
   - ☐ Yes, most of the time
   - ☐ Yes, sometimes
   - ☐ Not very often
   - ☐ No, not at all

*8 I have felt sad or miserable
   - ☐ Yes, most of the time
   - ☐ Yes, quite often
   - ☐ Not very often
   - ☐ No, not at all

*9 I have been so unhappy that I have been crying
   - ☐ Yes, most of the time
   - ☐ Yes, quite often
   - ☐ Only occasionally
   - ☐ No, never

*10 The thought of harming myself has occurred to me
   - ☐ Yes, quite often
   - ☐ Sometimes
   - ☐ Hardly ever
   - ☐ Never

Administered/Reviewed by _____ Date _____

[1]Source: Cox, J.L., Holden, J.M., and Sagovsky, R. 1987. Detection of postnatal depression: Development of the 10-item Edinburgh Postnatal Depression Scale. *British Journal of Psychiatry* 150:782-786 .

[2]Source: K. L. Wisner, B. L. Parry, C. M. Piontek, Postpartum Depression N Engl J Med vol. 347, No 3, July 18, 2002, 194-199

Edinburgh Postnatal Depression Scale[1] (EPDS)

Postpartum depression is the most common complication of childbearing.[2] The 10-question Edinburgh Postnatal Depression Scale (EPDS) is a valuable and efficient way of identifying patients at risk for "perinatal" depression. The EPDS is easy to administer and has proven to be an effective screening tool.

Mothers who score above 13 are likely to be suffering from a depressive illness of varying severity. The EPDS score should not override clinical judgment. A careful clinical assessment should be carried out to confirm the diagnosis. The scale indicates how the mother has felt ***during the previous week***. In doubtful cases it may be useful to repeat the tool after 2 weeks. The scale will not detect mothers with anxiety neuroses, phobias or personality disorders.

Women with postpartum depression need not feel alone. They may find useful information on the web sites of the National Women's Health Information Center <www.4women.gov> and from groups such as Postpartum Support International <www.chss.iup.edu/postpartum> and Depression after Delivery <www.depressionafterdelivery.com>.

SCORING

QUESTIONS 1, 2, & 4 (without an *)
Are scored 0, 1, 2 or 3 with top box scored as 0 and the bottom box scored as 3.

QUESTIONS 3, 5-10 (marked with an *)
Are reverse scored, with the top box scored as a 3 and the bottom box scored as 0.

Maximum score: 30
Possible Depression: 10 or greater
Always look at item 10 (suicidal thoughts)

Instructions for using the Edinburgh Postnatal Depression Scale:

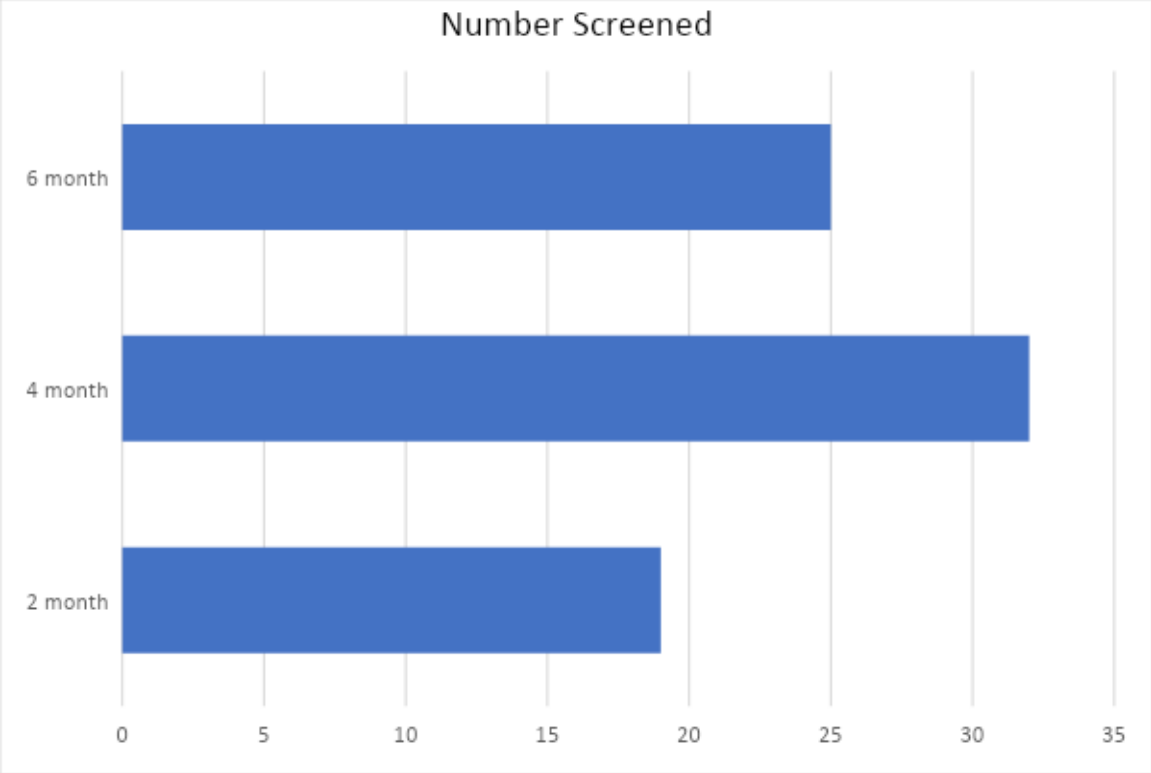
1. The mother is asked to check the response that comes closest to how she has been feeling in the previous 7 days.
2. All the items must be completed.
3. Care should be taken to avoid the possibility of the mother discussing her answers with others. (Answers come from the mother or pregnant woman.)
4. The mother should complete the scale herself, unless she has limited English or has difficulty with reading.

[1]Source: Cox, J.L., Holden, J.M., and Sagovsky, R. 1987. Detection of postnatal depression: Development of the 10-item Edinburgh Postnatal Depression Scale. *British Journal of Psychiatry* 150:782-786.

[2]Source: K. L. Wisner, B. L. Parry, C. M. Piontek, Postpartum Depression N Engl J Med vol. 347, No 3, July 18, 2002, 194-199

Figure 3

Number of Mothers Screened Per Visit



Appendix A

Poster Abstract

Purpose: To establish a postpartum depression screening and referral program in a small private pediatric practice.
Background: Postpartum depression (PPD) is a mood disorder affecting 11%-18% of people in the United States. Untreated PPD costs billions of dollars annually and leads to adverse outcomes for both the mother and the baby. Mothers with untreated PPD experience a decline in functional status and ability to care for self or infant. Babies and children have increased risk of delayed language development and social/behavioral difficulties. Early diagnosis and treatment can prevent long-term complications. Screening for PPD at well-child checks is recommended by the AAP.
Methods: Implementation of PPD screening program using the Edinburgh Postpartum Depression Screening (EPDS) during 2, 4, and/or 6-month well-child checks. The EPDS was added to the check-in paperwork. The providers reviewed scores and all participants were provided with education and information about resources. Those with high scores were referred for care.
Results: Fifty-nine participants were screened during a 5-month period, none were missed. Seventeen screened positive, requiring referrals for services. No one had suicidal ideation. More had positive screening at the 4- and 6-month visits and those with a history of depression were more likely to have abnormal scores.
Evaluation: Screening using the EPDS at well-child checks is possible in a small pediatric practice. In this project, 29% of those screened required referrals for care. Therefore, screening for PPD in a well-child setting is very important. This project can be replicated in other practices. Practices could add the EPDS to their electronic health records to increase screening and referrals.

Keywords: postpartum depression, Edinburgh Depression Screening Tool, pediatric setting, well-child checks

Appendix B
Poster Presentation

Implementation of the Edinburgh Postpartum Depression Screening Tool to screen mothers for postpartum depression in the pediatric setting

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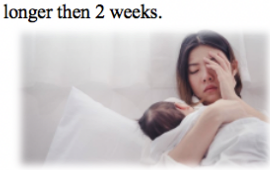
Background

Postpartum Depression (PPD) is a mood disorder occurring after childbirth with symptoms lasting longer then 2 weeks.



Retrieved from: https://www.pinegrovetreatment.com/blog/2021/04/c-section-awareness/

Evidence for Problem

- 11%- 18% of women in United States are affected with PPD
- 50% of mothers are undiagnosed.
- PPD is linked to adverse effects of both mother and baby:
  - -Mothers: decreased selfcare
  - -Babies: developmental delays

Evidence-Based Intervention/Benchmark

- The American Academy of Pediatrics recommends screening for PPD at 1,2, 4 and 6 month well child check.
- Edinburgh Postpartum Depression Screening (EPDS) instrument is a reliable and valid tool to screen for PPD.

Purpose

To establish a postpartum depression screening and referral program in a small private pediatric practice.

Framework/EBP Model

Ottawa Model of Research Use:
- Identify need for change.
- Explain process & outcomes.
- Consider gaps in current practice.
- Provide intervention.
- Assess screening effectiveness.
- Evaluate program outcome.

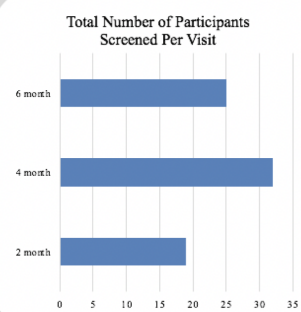
Project Plan Process

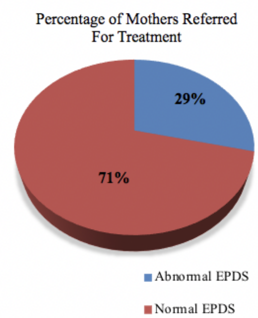
Project Initiation
- Provider Education
- Develop PPD screening, patient education and referral system.

Intervention
- Use the EPDS to screen all mothers at check-in for 2,4, and/or 6 month well child check.

Evaluation
- Review numbers screened, results scored and develop next steps.

Evaluation Results: 59 Screened and none missed





Cost Benefit Analysis

- **Program Benefit To Society *(N= 17 participants required referrals): $540,600***
(Average cost to society per mother-baby pair with PPD: $31,800)
- **Program cost to the practice: *$1,183.54***
(Printing of educational material: $3/patient, Cost of Providers' time: $1,006.93)

For every dollar spent, there is a $456.76 cost savings

Implications for Clinical Practice

- Screening for PPD should be standard of care.
- Mothers with a history of depression had higher scores at each visit .
- PPD symptoms were higher at 4 and 6 months.
- The Edinburgh Postpartum Depression Screening tool should be considered in all out-patient pediatric clinics.

Conclusions

- Screening mothers using the EPDS at well child checks is possible.
- Prior to implementing a PPD screening program, providers must have resources to provide care. In this project, 29% of those screened required referrals for care.
- This project can be replicated.

Appendix C
Stakeholder Presentation

A stakeholder presentation was held on April 8th, 2022. The poster was used to present the evidence-based project at Jacobson Pediatrics to Drs. Deepthi Kesanapalli, MD; Eugenia Jacobson, MD; Martha Fuller, PhD and front office staff. The presentation included a background and significance of implementing a postpartum depression screening in a pediatric setting. During the presentation, discussion was held regarding purpose, project process, cost, result and implications for clinical practice.

Appendix D

Conference Acceptance

Vera Nikolaychuk <vnikolaychuk@sandiego.edu>

CANP 44th Annual Fall Conference & Expo - You've Been Selected

Thu, Apr 28, 2022 at 2:30 PM

From: **Erin Meyer** <Erin@syaslpartners.com>
Date: Fri, Nov 19, 2021 at 15:07
Subject: CANP 44th Annual Fall Conference & Expo - You've Been Selected
To:

Dear Presenter,

This email is to inform you that you've been selected to present your submitted abstract(s) at the California Association for Nurse Practitioners (CANP) 44th Annual Educational Conference, supported by NSO. The conference takes place March 31-April 3 at the Pasadena Convention Center.

Attached you will find the conference agenda sorted by speaker. Please review the agenda and familiarize yourself with your assigned speaking date and time. As indicated in the abstract submission process we are unable to accommodate schedule changes as one change may affect the entire schedule. If you are unable to speak on the date and time assigned to you, for any reason please let me know immediately so we can replace your session.

Additional speaker information including registration information will be sent to you no later than December 17.

I am looking forward to seeing you in-person in March. Please let me know if you have any questions.

Regards,

Erin Meyer

Events & Education Director

1415 L Street, Suite 1000

Sacramento, CA 95814

916 441-1361 ext. 1

canpweb.org

29th National EBP Conference

Rempel, Kristen M <kristen-rempel@uiowa.edu> Wed, Dec 1, 2021 at 4:44 PM

Thank you for submitting an abstract to the 29th National Evidence-Based Practice VIRTUAL Conference. We received many high-quality submissions that underwent blind review and were selected based on scientific merit and relevance to the conference purpose and objectives. **We are pleased to inform you that your abstract has been accepted for a poster presentation including an optional 3-minute pre-recorded video about your poster.** Your poster and video will be available on the conference website.

The first step is for you to accept, or decline, your presentation here. This needs to be completed by **December 10** so program planning can continue.

Next, please register and pay for the conference at your earliest convenience. As a presenter, you will receive a discounted registration of $149 for each presenter, maximum of two. Please note, to receive this discount, you must register and pay by March 1, 2022. After that date, your registration fee will be the regular price of $229.

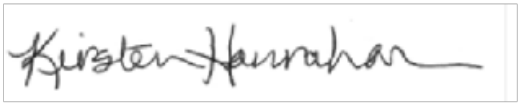
Upon receipt of your acceptance, you will receive an email from Kristen Rempel event-noreply@whova.io, check your spam/junk if needed. Please click on the link in this email to set up your bio, post an optional photo, and eventually upload your poster and optional 3-minute video. **This step must be completed by March 15, 2022.** Please review the attached poster presentation details for specific instructions.

Important dates to remember:

- **December 10, 2021**: accept or decline your presentation here
- **March 1, 2022**: Register and pay for the conference to receive the presenter discount
- **March 15, 2022**: Set up your bio and upload your poster and optional 3-minute video to the conference website using the email you receive from Kristen Rempel event-noreply@whova.io

Please contact us if you have any questions. Thank you.

Sincerely,



Kirsten Hanrahan, DNP, ARNP, CPNP-PC, FAAN

Conference Chair and Director, Nursing Research & Evidence-Based Practice

kirsten-hanrahan@uiowa.edu

University of San Diego

Vera Nikolaychuk <vnikolaychuk@sandiego.edu>

Sigma's 33rd International Nursing Research Congress -- 21-25 July (In-Person event) and 3-5 August (Virtual event) -- Notification Letter for Poster Presentations

1 message

sigmanursing@confex.com <sigmanursing@confex.com> Fri, Jan 14, 2022 at 10:29 AM
Reply-To: abstracts@sigmanursing.org
To: vnikolaychuk@sandiego.edu, nikolaychukv@yahoo.com

Congratulations, Vera Nikolaychuk!

The abstract you submitted for Sigma's 33rd International Nursing Research Congress -- 21-25 July (In-Person event) and 3-5 August (Virtual event), "Implementation of the Edinburgh Screening Tool for mothers with postpartum depression in the pediatric setting.," has been selected for an in-person poster presentation. The presentations selected are an excellent reflection of current nursing trends and timely issues. We look forward to your participation in this prestigious event. The opportunity to collaborate with nursing scholars from around the world who are involved in the advancement of nursing science promises to be rewarding and stimulating.

YOUR ABSTRACT

- In-Person Poster Presentation Title: Implementation of the Edinburgh Screening Tool for mothers with postpartum depression in the pediatric setting.
- ID#: 114795
- Password: 511395

The primary presenting author is required to complete the intent-to-present form for **each** presentation accepted. If the intent-to-present form is not completed by the deadline of **1 February 2022**, the presentation will be removed from the program. ***Only the primary presenter needs to complete the intent-to-present form***.

PLEASE NOTE: Our software does not allow us to include co-authors on the notification emails. Please be sure to communicate with all of your co-authors regarding the decision of the reviewers.

To submit the intent-to-present form, please go to http://stti.confex.com/stti/congrs22/ebpspop/extra/index.cgi?EntryType=Paper&username=114795&password=511395.

Once the intent-to-present deadline has been reached, presentations will be scheduled, and notifications will be sent to authors with the date and time of the scheduled presentation by the end of February 2022. Information on the Sigma's 33rd International Nursing Research Congress -- 21-25 July (In-Person event) and 3-5 August (Virtual event) can be found on our website at https://www.sigmanursing.org/connect-engage/meetings-events/congress.

Leadership Education Grants

Grant opportunities will be available through the Sigma Foundation for Nursing to assist in offsetting the cost of attending Sigma's 33rd International Nursing Research Congress -- 21-25 July (In-Person event) and 3-5 August (Virtual event). Information will be available on our website on or around 12 January 2022. Direct any specific inquiries regarding the leadership education grants to Tonna Thomas, Grants Coordinator by email at tonna@sigmanursing.org.

If you have any other questions, please contact abstracts@sigmanursing.org.

Thank you,
Sarah E. Gray, DNP, RN, CEN, FAEN
Director of Educational Resources
Sigma Theta Tau International Honor Society of Nursing (Sigma)

Appendix E

Certification

COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM)

COMPLETION REPORT - PART 1 OF 2
COURSEWORK REQUIREMENTS*

* NOTE: Scores on this Requirements Report reflect quiz completions at the time all requirements for the course were met. See list below for details. See separate Transcript Report for more recent quiz scores, including those on optional (supplemental) course elements.

- **Name:** Vera Nikolaychuk (ID: 8452587)
- **Institution Affiliation:** University of San Diego (ID: 1652)
- **Institution Email:** vnikolaychuk@sandiego.edu
- **Institution Unit:** Nursing
- **Phone:** 9163466039

- **Curriculum Group:** Social & Behavioral Research - Basic/Refresher
- **Course Learner Group:** Same as Curriculum Group
- **Stage:** Stage 1 - Basic Course
- **Description:** Choose this group to satisfy CITI training requirements for Investigators and staff involved primarily in Social/Behavioral Research with human subjects.

- **Record ID:** 33431047
- **Completion Date:** 20-Sep-2019
- **Expiration Date:** 19-Sep-2022
- **Minimum Passing:** 80
- **Reported Score*:** 91

REQUIRED AND ELECTIVE MODULES ONLY	DATE COMPLETED	SCORE
Belmont Report and Its Principles (ID: 1127)	20-Sep-2019	3/3 (100%)
Conflicts of Interest in Human Subjects Research (ID: 17464)	20-Sep-2019	5/5 (100%)
Students in Research (ID: 1321)	20-Sep-2019	4/5 (80%)
History and Ethics of Human Subjects Research (ID: 498)	20-Sep-2019	4/5 (80%)
Defining Research with Human Subjects - SBE (ID: 491)	20-Sep-2019	5/5 (100%)
Informed Consent - SBE (ID: 504)	20-Sep-2019	5/5 (100%)
Privacy and Confidentiality - SBE (ID: 505)	20-Sep-2019	4/5 (80%)

For this Report to be valid, the learner identified above must have had a valid affiliation with the CITI Program subscribing institution identified above or have been a paid Independent Learner.

Verify at: www.citiprogram.org/verify/?k0a47131e-9393-4c46-9a59-9e1c2989d6a0-33431047

Collaborative Institutional Training Initiative (CITI Program)
Email: support@citiprogram.org
Phone: 888-529-5929
Web: https://www.citiprogram.org

COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM)

COMPLETION REPORT - PART 2 OF 2
COURSEWORK TRANSCRIPT**

** NOTE: Scores on this Transcript Report reflect the most current quiz completions, including quizzes on optional (supplemental) elements of the course. See list below for details. See separate Requirements Report for the reported scores at the time all requirements for the course were met.

- **Name:** Vera Nikolaychuk (ID: 8452587)
- **Institution Affiliation:** University of San Diego (ID: 1652)
- **Institution Email:** vnikolaychuk@sandiego.edu
- **Institution Unit:** Nursing
- **Phone:** 9163466039

- **Curriculum Group:** Social & Behavioral Research - Basic/Refresher
- **Course Learner Group:** Same as Curriculum Group
- **Stage:** Stage 1 - Basic Course
- **Description:** Choose this group to satisfy CITI training requirements for Investigators and staff involved primarily in Social/Behavioral Research with human subjects.

- **Record ID:** 33431047
- **Report Date:** 20-Sep-2019
- **Current Score**:** 92

REQUIRED, ELECTIVE, AND SUPPLEMENTAL MODULES	MOST RECENT	SCORE
Basic Institutional Review Board (IRB) Regulations and Review Process (ID: 2)	20-Sep-2019	5/5 (100%)
Students in Research (ID: 1321)	20-Sep-2019	4/5 (80%)
Informed Consent (ID: 3)	20-Sep-2019	5/5 (100%)
Defining Research with Human Subjects - SBE (ID: 491)	20-Sep-2019	5/5 (100%)
Social and Behavioral Research (SBR) for Biomedical Researchers (ID: 4)	20-Sep-2019	3/4 (75%)
Belmont Report and Its Principles (ID: 1127)	20-Sep-2019	3/3 (100%)
Records-Based Research (ID: 5)	20-Sep-2019	3/3 (100%)
Informed Consent - SBE (ID: 504)	20-Sep-2019	5/5 (100%)
Privacy and Confidentiality - SBE (ID: 505)	20-Sep-2019	4/5 (80%)
History and Ethics of Human Subjects Research (ID: 498)	20-Sep-2019	4/5 (80%)
Conflicts of Interest in Human Subjects Research (ID: 17464)	20-Sep-2019	5/5 (100%)

For this Report to be valid, the learner identified above must have had a valid affiliation with the CITI Program subscribing institution identified above or have been a paid Independent Learner.

Verify at: www.citiprogram.org/verify/?k0a47131e-9393-4c46-9a59-9e1c2989d6a0-33431047

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Appendix F

AACN DNP Essentials/NONPF Competencies/USD DNP Program Outcomes Exemplars

AACN DNP Essentials & NONPF Competencies	USD DNP Program Objectives	Exemplars Provide bulleted exemplars that demonstrates achievement of each objective
DNP Essential I: Scientific Underpinnings for Practice **NONPF: Scientific Foundation Competencies** *The scientific foundation of nursing practice has expanded and includes a focus on both the natural and social sciences including human biology, genomics, science of therapeutics, psychosocial sciences, as well as the science of complex organizational structures. In addition, philosophical, ethical, and historical issues inherent in the development of science create a context for the application of the natural and social sciences.*	**2.** Synthesize nursing and other scientific and ethical theories and concepts to create a foundation for advanced nursing practice.	**Fall 2019** ● Utilized Ottawa Model of Research Use to guide the PICO question of EBP project related to reducing central line bloodstream infection in dialysis patient. (DNPC611) **Summer 2020** ● Explored the scientific foundations and practice of mindfulness for the enhancement of personal reflective practice in a clinical setting (DNPC 610) ● Implement John Hopkins model in manuscript "Multiple Sclerosis: Comprehensive Review of Pathogenesis and Emerging Treatments" (DNPC622) **Spring 2021** ● Applied principles of program planning to develop a screening for postpartum depression EBP project (DNPC 686)
DNP Essential II: Organizational & System Leadership for Quality Improvement & Systems Thinking **NONPF: Leadership Competencies/Health Delivery System Competencies** *Advanced nursing practice includes an organizational and systems leadership component that emphasizes practice, ongoing improvement of health*	**5.** Design, implement, and evaluate ethical health care delivery systems and information systems that meet societal needs and ensure accountability for quality outcomes.	**Spring 2020** ● Analyzed and applied strategic management principles in a case study presentation (DNPC 626) **Spring 2021** ● Ottawa Model of Research Use (OMRU) used to guide the DNP EBP project to implement screening for postpartum depression in a pediatric setting (DNPC 686)

outcomes, and ensuring patient safety. Nurses should be prepared with sophisticated expertise in assessing organizations, identifying system's issues, and facilitating organization-wide changes in practice delivery. This also requires political skills, systems thinking, and the business and financial acumen needed for the analysis of practice quality and costs.		**Summer 2020** ● Aim to improve patient care through the use of reflective practice (DNPC 610) **Summer 2021** ● Determined and implemented a postpartum screening, appropriate evidence-based intervention, in a pediatric clinical setting to improve quality care. **Fall 2021** ● Evaluated the results of Edinburgh depression screening tool and provided community referrals to all screened participants (DNPC 630). **Spring 2022** ● Evaluate EBP capstone project outcomes (DNPC 630).
DNP Essential III: Clinical Scholarship & Analytical Methods for Evidence-Based Practice **NONPF: Quality Competencies/Practice Inquiry Competencies** *Scholarship and research are the hallmarks of doctoral education. Although basic research is viewed as the first and most essential form of scholarly activity, an enlarged perspective of scholarship has emerged through alternative paradigms that involve more than discovery of new knowledge. These paradigms recognize: (1) the scholarship of discovery and integration "reflects the investigative and synthesizing traditions of academic life"; (2) scholars give meaning to isolated facts and make connections across disciplines through the*	**4.** Incorporate research into practice through critical appraisal of existing evidence, evaluating practice outcomes, and developing evidence-based practice guidelines.	**Fall 2019** ● Developed a secondary screening program for Schizophrenia (DNPC625) ● Evaluated evidence-based research for loss of parent to cancer, pediatric cardiac arrest, nutrition and neurodevelopment in Clinical Ground Rounds (APNC520) ● Analyzed and evaluated practice guidelines for pregnancy care and women's health (DNPC611). **Fall 2020** ● Developed an evidence-based manuscript for "Multiple Sclerosis: Comprehensive Review of Pathogenesis and Emerging Treatments" (DNPC622)

scholarship of integration; and (3) the scholar applies knowledge to solve a problem via the scholarship of application that involves the translation of research into practice and dissemination and integration of new knowledge.		**Spring 2021** ● Developed and implement plans of care for adolescent with anxiety and depression in collaboration with preceptor, patients and their families that integrate developmental, psychosocial, spiritual, and physiological needs. ● Differentiated non-emergent from emergent/urgent conditions and initiated treatment, consultation, and referral for bilateral hydronephrosis in a newborn. (NPTC 604) **Summer 2021** ● Evaluated relavent child developmental, behavioral and sociocultural concepts in assessing the health care needs of children and their families in the pediatric out-patient clinic (NPTC 605). **Spring 2022** ● Develop guidelines for postpartum depression screning using the EPD tool in a pediatric setting (DNPC 630).
DNP Essential IV: Information Systems/Technology & Patient Care Technology for Improvement & Transformation of Health Care **NONPF: Technology & Information Literacy Competencies** *DNP graduates are distinguished by their abilities to use information systems/technology to support and improve patient care and health care systems, and provide leadership within healthcare systems and/or academic settings. Knowledge and skills related*	**7.** Incorporate ethical, regulatory, and legal guidelines in the delivery of health care and the selection, use, and evaluation of information systems and patient care technology.	**Fall 2019** ● Obtained Biomedical Research Human Certification – Basic/Refresher Course through CITI (DNPC625) **Spring 2020** ● Developed understanding of existing healthcare care information systems and EHR (HCIN540) **Summer 2020** ● Developed understanding of basics of healthcare finance by creating a business plan to

to information systems/technology and patient care technology prepare the DNP graduates apply new knowledge, manage individual and aggregate level information, and assess the efficacy of patient care technology appropriate to a specialized area of practice along with the design, selection, and use of information systems/technology to evaluate programs of care, outcomes of care, and care systems. Information systems/technology provide a mechanism to apply budget and productivity tools, practice information systems and decision supports, and web-based learning or intervention tools to support and improve patient care.		improve clinical outcomes of ESRD patients (DNPC 653) **Fall 2020** ● Integrate developmental and health screening methods in care of individuals across lifespan in clinical setting (NPTC 602) **Spring 2021** ● Developed a proposal for implementation of screening for postpartum depression in a pediatric setting. **Summer 2021** ● Differentiate non-emergent from emergent/urgent behaivoral and mental health conditions in a pediatric setting and initiate interprofessional treatment, consultation, and referral. (NPTC 605) **Fall 2021** ● Inccorperated postpartum screening in a pediatric setting (NPTC 608) **Spring 2022** ● present a stakeholder presentation at the clinical setting (DNPC 630)
DNP Essential V: Health Care Policy for Advocacy in Health Care **NONPF: Policy Competencies** *Health care policy, whether created though governmental actions, institutional decision-making, or organizational standards, creates a framework that can facilitate or impede the delivery of health care services or the ability of the provider to engage in practice to address health care needs. Engagement in the process of policy*	**3.** Demonstrate leadership in collaborative efforts to develop and implement policies to improve health care delivery and outcomes at all levels of professional practice (institutional, local, state, regional, national, and/or international).	**Spring 2020** ● Developed policy brief on screening and treatment for postpartum depression (DNPC648) ● Developed health policy analysis scholarly paper "Assessment and Analysis of health policy addressing maternal mental health and impact of postpartum depression" (DNPC648) **Fall 2020**

development is central to creating a health care system that meets the needs of its constituents. Political activism and a commitment to policy development are central elements of DNP practice.		• Demonstrate socio-cultural competence and promote improved healthcare delivery in clinical setting (NPTC 602) **FALL 2021** • Applied and was accepted for poster presentation at the 29th National Evidence-Based Practice Conference (DNPC 630) • Utilize pathophysiological concepts to develop differential and evaluation of individuals with abdominal pain. (NPTC 608) **Spring 2022** • Present the EBP poster at California Association of Nurses Practitioners (CANP)
DNP Essential VI: Interprofessional Collaboration for Improving Patient & Population Health Outcomes **NONPF: Leadership Competencies** *Today's complex, multi-tiered health care environment depends on the contributions of highly skilled and knowledgeable individuals from multiple professions. In order to accomplish the IOM mandate for safe, timely, effective, efficient, equitable, and patient-centered care in this environment, health care professionals must function as highly collaborative teams. DNPs have advanced preparation in the interprofessional dimension of health care that enable them to facilitate collaborative team functioning and overcome impediments to interprofessional practice. DNP graduates have preparation in methods of effective team leadership and are prepared to play a central role in establishing interprofessional teams,*	**1.** Demonstrate advanced levels of clinical practice within defined ethical, legal, and regulatory parameters in designing, implementing, and evaluating evidenced-based, culturally competent therapeutic interventions for individuals or aggregates. **3.** Demonstrate leadership in collaborative efforts to develop and implement policies to improve health care delivery and outcomes at all levels of professional practice (institutional, local, state, regional, national, and/or international).	**Fall 2019** • Presented article on evidence associated with coffee consumption and multiple health outcomes (DNPC625) **Fall 2020** • demonstrate understanding of ethical framework and legal requirements of a Nurse Practitioner role (NPTC 602) **Spring 2021** • Shared evidence-based literature with clinicians in a pediatric clinical setting **Summer 2021** • Coordinated specialty care for weight management in a pediatric patient with obesity, made referrals to subspecialists, families, schools, and community support services. (NPTC 549) **Spring 2022** • Demonstrate leadership in a pediatric, establish a treatment plan for infants, toddlers,

participating in the work of the team, and assuming leadership of the team when appropriate.		school-age and adolescents patients (NPTC 609).
DNP Essential VII: Clinical Prevention & Population Health for Improving Nation's Health **NONPF: Leadership Competencies** *Consistent with national calls for action and with the longstanding focus on health promotion and disease prevention in nursing, the DNP graduate has a foundation in clinical prevention and population health. This foundation enables DNP graduates to analyze epidemiological, biostatistical, occupational, and environmental data in the development, implementation, and evaluation of clinical prevention and population.*	**6.** Employ a population health focus in the design, implementation, and evaluation of health care delivery systems that address primary, secondary, and tertiary levels of prevention.	**Fall 2019** • Developed a secondary screening program for Schizophrenia (DNPC625) **Spring 2020** • Evaluated and discussed current health care gaps in treatment of opioid epidemic (DNPC626) **Fall 2021** • Evaluated the gap in healthcare for screening mother with postpartum depression (DNPC 630). **Spring 2022** • Implement a pediatric symptom check list in a clinical setting (NPTC 609).

DNP Essential VIII: Advanced Nursing Practice **NONPF: Independent Practice/Ethics Competencies** *The increased knowledge and sophistication of healthcare has resulted in the growth of specialization in nursing in order to ensure competence in these highly complex areas of practice. The reality of the growth of specialization in nursing practice is that no individual can master all advanced roles and the requisite knowledge for enacting these roles. DNP programs provide preparation within distinct specialties that require expertise, advanced knowledge, and mastery in one area of nursing practice. A DNP graduate is prepared to practice in an area of specialization within the larger domain of nursing.*	**1**. Demonstrate advanced levels of clinical practice within defined ethical, legal, and regulatory parameters in designing, implementing, and evaluating evidence-based, culturally competent therapeutic interventions for individuals or aggregates.	**Spring 2021** • Implement screening using literature to guide best practice for postpartum depression (American Academy of Pediatrics) **FALL 2021** • Implemented a screening for mothers who are 2-6months postpartum (DNPC 630) **Spring 2022** • Develop an evidence-based treatment plan for an adolescent with major depression and discuss transitioning into adult care (NPTC 609).