Perinatal depression (PND) is a condition affecting up to 800,000 new moms in the US each year. PND includes depressive episodes during pregnancy and one year following birth of a baby. Maternal problems may include: difficulty bonding with the baby, withdrawing from family and friends, suicidal thoughts or attempts, among others. For the infant, such consequences may include malnutrition, illness, delayed mother-infant attachment, and many others. Inconsistent PND screening practices still exist, and healthcare providers tend to overestimate screening frequency and accuracy. Depression identification is important because suicide is the second leading cause of death in the perinatal population, accounting for 20% of deaths. Interventions such as maternal depression screening may increase identification of depression, resulting in better patient outcomes.

Proposed Solution

Depression screening should be done for all women at least once during the perinatal period, heavily focused on the postpartum since the majority of PND presents postnatally. The Edinburgh Postnatal Depression Scale (EPDS) is a clinically validated tool, excellent for PND identification. It excludes symptoms of depression which are normal for most perinatal women, such as sleep changes. All patients with potential PND should immediately be referred to a mental health professional, for diagnosis and treatment.

In women who are pregnant to one year postpartum, how does implementation of a standardized depression screening tool protocol affect detection of PND at routine perinatal visits, compared to clinical judgment? This DNP capstone project implemented a 12-week standardized PND screening protocol in an obstetric (OB) clinic located in the upper Midwestern United States. Pre-implementation education was provided to all participants (OB providers, nurses, and clerical staff). The EPDS was utilized to screen women for PND at two specific points during the perinatal period, 24-28 weeks gestation, the same visit as the oral glucose tolerance test, and 6 weeks postpartum. Patients that had an EPDS score of ≥10 were recommended to be referred to a mental health provider for further evaluation and treatment. Data was collected for the following three time periods, each 12 weeks in length: 1) one year prior to implementation, 2) pre-implementation, and 3) implementation. Data during implementation (Period 3) was compared to the two preceding time periods (Periods 1 and 2). The OB clinic’s information technology staff extracted data from the electronic health record (EHR), including patient encounters and EPDS scores. No patient identifying data was included. Quantitative data analyzed included PND screening rates and EPDS scores, using Microsoft Excel and SPSS Statistics. Qualitative data evaluated pre-implementation surveys given to the OB providers, and post-implementation surveys given to the OB providers, nurses, and clerical staff. The purpose of the surveys was to evaluate attitudes of the project participants towards standardized PND screening.

PICO Question

Problem

• Perinatal depression (PND) is a condition affecting up to 800,000 new moms in the US each year.
• PND includes depressive episodes during pregnancy and one year following birth of a baby.
• Maternal problems may include: difficulty bonding with the baby, withdrawing from family and friends, suicidal thoughts or attempts, among others. For the infant, such consequences may include malnutrition, illness, delayed mother-infant attachment, and many others.
• Inconsistent PND screening practices still exist, and healthcare providers tend to overestimate screening frequency and accuracy.
• Depression identification is important because suicide is the second leading cause of death in the perinatal population, accounting for 20% of deaths.
• Interventions such as maternal depression screening may increase identification of depression, resulting in better patient outcomes.

Methods

This DNP capstone project implemented a 12-week standardized PND screening protocol in an obstetric (OB) clinic located in the upper Midwestern United States. Pre-implementation education was provided to all participants (OB providers, nurses, and clerical staff). The EPDS was utilized to screen women for PND at two specific points during the perinatal period, 24-28 weeks gestation, the same visit as the oral glucose tolerance test, and 6 weeks postpartum. Patients that had an EPDS score of ≥10 were recommended to be referred to a mental health provider for further evaluation and treatment. Data was collected for the following three time periods, each 12 weeks in length: 1) one year prior to implementation, 2) pre-implementation, and 3) implementation. Data during implementation (Period 3) was compared to the two preceding time periods (Periods 1 and 2). The OB clinic’s information technology staff extracted data from the electronic health record (EHR), including patient encounters and EPDS scores. No patient identifying data was included. Quantitative data analyzed included PND screening rates and EPDS scores, using Microsoft Excel and SPSS Statistics. Qualitative data evaluated pre-implementation surveys given to the OB providers, and post-implementation surveys given to the OB providers, nurses, and clerical staff. The purpose of the surveys was to evaluate attitudes of the project participants towards standardized PND screening.

Limitations

• Electronic Health Record data extraction limitations
• Difficult communication with Information Technology (IT) staff
• Low engagement of OB provider staff

Results

<table>
<thead>
<tr>
<th>EPDS Score Frequency</th>
<th>Average Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period 1</td>
<td>Period 2</td>
</tr>
<tr>
<td>0</td>
<td>38%</td>
</tr>
<tr>
<td>1</td>
<td>20%</td>
</tr>
<tr>
<td>2</td>
<td>15%</td>
</tr>
<tr>
<td>3</td>
<td>10%</td>
</tr>
<tr>
<td>4</td>
<td>5%</td>
</tr>
<tr>
<td>5</td>
<td>3%</td>
</tr>
</tbody>
</table>

- EPDS Scores
  - No EPDS scores from Period 1
  - From Period 2 to Period 3
  - Average score increased from 3.6 to 4.8
  - Number of “positive” screenings increased from 8 to 47

Suggestive that standardized screening is more sensitive to PND than clinical judgement alone

- Pre-implementation survey completed by 5 providers
- Post-implementation survey completed by 5 providers, 11 nurses, 3 clerical staff
- Four main themes were developed:
  1. Staff are willing to screen for PND and recognize its importance
  2. Providers intend to continue standardized PND screening in the future
  3. Improved communication with the mental health clinic likely contributed to this positive experience
  4. Barriers still exist which prevent all eligible patients from being screened (EHR limitations)

Conclusions

Standardized screening identifies more patients with possible PND compared to individual provider discretion. During implementation, there was an increase in PND screening frequency, average EPDS score, and the number of women scoring ≥10. This suggests that standardized screening is more sensitive in detecting patients who may have PND, than clinical judgement alone. Improving consistency of PND screening practices may identify affected women sooner, leading to earlier initiation of treatment.

Recommendations for Future Projects:

1. Determine when screenings take place (if more than 1 screening time)
2. Give pre- and post-implementation surveys to all participants
3. Track patients’ time from screening to referral

Melissa Nehr, DNP, APRN, FNP-C; Kara Kniert DNP, APRN, FNP-C; Shawn Brooking, DNP, APRN, CNM

Standardized Perinatal Depression Screening for Optimizing Patient Care

School of Health Sciences