Postpartum Depression Education for WIC Staff

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Abstract

Purpose

The WIC clinics are on the forefront of identifying postpartum depression (PPD) in an at-risk population. Increasing the WIC staff's knowledge base on PPD will provide an opportunity to bring awareness to this prevalent health condition that can significantly affect the well-being of the mother as well as the child.

Method

In order to address the issue of PPD, a quality improvement (QI) project will be implemented as an educational webinar for WIC staff in the state of Illinois. This webinar will include education on PPD and its prevalence in the WIC population.

Implementation Plan

The links to the PPD webinar and the pre and post surveys were distributed to the WIC staff members in Woodford, Peoria, and Tazewell counties located in Illinois. Participants were asked to complete the pre-survey, view the PPD webinar, and then access the link to the post-survey to receive their continuing education credit.

Postpartum Depression Education for WIC Staff

Affecting one out of seven women (Committee on Obstetric Practice, 2015), postpartum depression (PPD) frequently goes undiagnosed and untreated (Groch, 2013). This project is a way to help educate WIC staff members who are in a vital position to identify PPD and help guide new mothers to resources available to help them.

Background and Significance

Major depression is a common mental disorder in the United States and the leading cause of disability worldwide, affecting 350 million people globally (World Health Organization [WHO], 2015). Depression is found more often in women than men (Lieber, 2018). Depression can result in severe impairment that interferes with one's ability to carry out major life activities (WHO, 2015). PPD is one of the most common complications of childbirth and is defined as a major depressive disorder occurring within a year after childbirth (American Psychiatric Association [APA], 2000). PPD affects up to 25% of new mothers (Sriraman, Pham, & Kumar, 2017), where postpartum blues have been reported to occur in 15-85% of women within the first 10 days after given birth (Pearlstein, Howard, Salisbury, & Zlotnick, 2009). Which raises concern since most females do not follow up with their obstetrician or midwife until their four to six-week postpartum check-up (BabyCenter Medical Advisory Board, 2016). PPD, in the mother, can lead to the development of sleeping, eating, and behavioral problem in children (National Institute of Mental Health, 2016). Symptoms of PPD include feelings of worthlessness or guilt, irritability, changes in appetite, lack of pleasure, loss of energy, thoughts of harm to self or infant, constant worrying about the infant, or having little interest in the infant (US National Library of Medicine, 2017). It is important to understand risk factors for PPD because often this disease goes unrecognized (Committee on Obstetric Practice, 2015; Groch, 2013).

PPD not only affects the mother but also the infant through maternal impairment (National Institute of Mental Health, 2016). When mothers experience PPD, it is estimated 24% to 50% of their partners will also experience depression (Goodman, 2004). Research has shown PPD to have a 35% prevalence rate among low-income females living in a rural area (Price & Procter, 2009; Sears, Danda, & Evans, 1999). Rahman, Iqbal, Bunn, Lovel, and Harrington (2004) reported that maternal depression resulted in poor growth and higher risk of diarrhea in infants. Pregnancy Risk Assessment Monitoring System (PRAMS) found that 25.4% of all prenatal visits did not talk about depression during one's pregnancy or after pregnancy (Centers for Disease Control and Prevention [CDC], 2009). PPD has become a national public health concern. In order to improve America's health, *Healthy People 2020* identified an objective to decrease the number of women delivering a live birth who experience postpartum depressive symptoms (USDHHS, 2010).

WIC Clients

The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) provides states federal grants for nutritious foods, health care referrals, and nutrition education for low income pregnant, breastfeeding, and non-breastfeeding postpartum women, along with infants and children up to the age of five. WIC attends to 53% of all infants born in the U.S., and services are provided at county health departments, hospitals, mobile clinics, community centers, schools, public housing sites, migrant health centers and camps, and Indian Health Service facilities (United States Department of Agriculture [USDA], 2017). A family of two has to make less than $30,044 year for WIC supplements or be below 185% of the federal poverty level (USDA, 2017). Living in poverty is a risk factor causing PPD (Mayberry, Horowitz, & Declercq, 2007; Pooler, Perry, & Ghandour, 2013).

Problem Statement

Postpartum depression is a common health condition that can significantly affect the health of the mother as well as the child (Groch, 2013; Ko et al., 2017; Orhon, Ulukol, & Soykan, 2007). Affecting one out of seven women (Committee on Obstetric Practice, 2015), PPD frequently goes undiagnosed and untreated because of a lack of knowledge among women and their health-care providers (Groh, 2013). *Healthy People 2020* objective is to decrease the number of women delivering a live birth who experience postpartum depressive symptoms (USDHHS, 2010).

On a national level, it is estimated that 400,000 infants are born to women who are depressed (Sriraman, Pham, & Kumar, 2017). Research shows WIC clients may be more vulnerable to the onset of depression (Kurz, 2005; Mayberry, Horowitz, & Declercq, 2007). The prevalence rate for subclinical and clinical depression for women in WIC clinics was reported as two times higher versus U.S women overall (Kurz, 2005). Clients are usually seen in the WIC clinic 10 days after delivery. Often mothers are seen in the clinic before any other health care provider. Due to the unique nature and timeframe of WIC visits, it is imperative for WIC staff to be confident in their ability to identify signs and symptoms of PPD.

Project Aims

In order to address the issue of PPD, a quality improvement (QI) project will be implemented as an educational webinar for WIC staff in the state of Illinois. This webinar will include education on PPD and its prevalence in the WIC population. The project is a way to increase awareness of PPD while educating staff on identifying signs and symptoms of PPD along with providing staff with support resources to aid in making referrals for mothers at risk.

Clinical Question

For WIC staff members practicing in several Midwestern rural, county health departments, how does an informational webinar affect their knowledge of identifying post-partum mothers at risk for PPD and resources available to combat PPD compared to pre-webinar knowledge?

Congruence with Organizational Strategic Plan

WIC's mission is to safeguard the health of low-income women, infants, and children up to the age of five (USDA, 2017). A QI project will be implemented for WIC staff members to empower the first line of defense in identifying PPD in low-income mothers, therefore safeguarding the health of the mother and infant.

Review of Literature

Search. The main search engines utilized were PubMed, Google, Google Scholar, CINAHL Plus with Full Text, and Ovid Medline. Over 200 articles were found. Fifty plus articles were reviewed and 15 were utilized. Keywords that guided the search process were: postpartum, WIC, postpartum screening, child maltreatment, rural, and Edinburgh Postnatal Depression Scale.

Screening tools. Several screening tools for PPD have been validated for use during the pregnancy and postpartum period. For instance, the Edinburgh Postnatal Depression Scale (EPDS) (see Appendix A) was developed in Scotland over 30 years ago and is considered a reliable scale that is recognized as an appropriate screening instrument for early identification of depression. This 10-item questionnaire is a self-reporting tool that is still being utilized today, and can be completed by the mother in five minutes (Sriraman et al., 2017). The questionnaire focuses on symptoms over the last seven days (Cox, Holden, & Sagovsky, 1987). The EPDS consists of 10 four-level questions, which are scored from 0 to 3, with total scores ranging from

0 to 30 (Committee on Obstetric Practice, 2015). The cut-off score in suggesting depression has varied across studies (Eberhard-Gran, Eskild, Tambs, Opjordsmoen, & Samuelsen, 2001; Gibson, McKenzie-McHarg, Shakespeare, Price, & Gray, 2009). In identifying PPD, the EPDS has a sensitivity of 86% and a specificity of 78% (Cox et al., 1987).

WIC coordinators in region three of Central Illinois were surveyed in February 2018. Of those who completed the survey, EPDS is utilized in 95% of the health departments. Clients who score a 10 (suggestive of depression) or show a significant change from a previous screening (during pregnancy) should be referred to qualified mental health professionals for further assessment.

Another screening tool utilized is the Postpartum Depression Screening Scale (PPDS). This 35-item questionnaire is rated on a 5-point Likert scale, ranging from Strongly Disagree to Strongly Agree. The sum for PPDS scores range from 35-177. A score above 80 is suggestive of depression (Beck & Gable, 2002). When compared to EPDS, PPDS has more questions, therefore requiring more time to complete. As with any screening tool, results are not a definitive diagnosis, and should not replace clinical judgment of the clinical context.

Barriers. A common theme regarding why mothers do not address their perinatal depression included fear of stigma, loss of parental rights, and lack of trust in health care providers (Byatt et al., 2013; Groch, 2012; Flynn, Henshaw, O'Mahen, & Forman, 2010; Mollard et al., 2016). Common barriers identified in providers addressing maternal depression include clinician's lack of experience with PPD along with decreased knowledge about resources available (Heneghan et al., 2007; Mollard, Hudson, Ford, & Pullen, 2016). Price and Procter (2009) found in rural women in the United States (U.S.), with PPD, that access to traditional

mental health treatment was limited, along with lack of adequate insurance coverage for treatment.

Another barrier identified was the mother's assumption she was supposed to feel this way, that it was a part of motherhood (Flynn et al., 2010). Mothers are more likely to rely on their partners for support during PPD, adding to strain on their relationship (Holopainen, 2002). Mollard et al., (2016) performed an integrative literature review on PPD in the U.S. rural population. The researchers found that rural women felt a stigma in seeking mental health services, faced difficulties in reaching care providers, and preferred informal care to formal care. Rural communities have limited access to health care services, along with a harder time recruiting health care providers, especially trained in mental health care services (National Rural Health Association [NRHA], 2012). Our survey showed 35% of women have to drive 20 or more miles to attend a class or group that talks about parent stress, or an educational parenting class.

Risk factors. Utilizing data extracted from PRAMS, Ko, Rockhill, Tong, Morrow, and Farr (2017) found PPD to have a higher prevalence rate among new mothers who were 19 years old or less or mothers who were 20-24 years old. Also, women who had less than 12 years of education, who reported having three or more major stressful life events prior to the birth, and who were unmarried were shown to have a higher prevalence rate of PPD. Single mothers have increased in numbers within the United States by four-fold since 1960 (Barnhart & Maguire-Jack, 2016)**.** In 2012, the overall prevalence of PPD in the U.S. was at 11.5%, representing 184,828 women (Ko et al., 2017). Researchers also found PPD to have a 35% prevalence rate among low-income females living in rural areas (Price & Procter, 2009; Sears et al., 1999). Using EPDS screening, Hutto, Kim-Godwin, Pollard, and Kemppainen (2011) found a 32.7%

prevalence rate of PPD among low-income females living in rural North Carolina. Price and Proctor (2009) screened mothers for postpartum depression as part of Healthy Start Initiative project in a rural Midwest region. Their sample consisted of 1,086 mothers, of whom, 36% were found to meet the criteria for major, minor, or subthreshold depression. Researchers pointed to rural communities as having a high prevalence rate of PPD that is two times higher than the general U.S. population (Hutto et al., 2011).

Child abuse. Reck et al., (2004) identified PPD as a risk factor for child abuse towards infants. Cadzow, Armstrong, and Fraser (1999) identified elevated EPDS scores, along with stress relating to finances, housing, and relationships as risk indicators for physical abuse toward infants. Kingston, Tough, and Whitfield (2012) found PPD affected the maternal-infant bond and led to adverse outcomes for both the mother and the infant. Choi et al. (2010) found that bonding difficulties between mothers and their infants were also linked to abusive behavior. Levey et al., (2017) explained that maternal depression was associated with a greater efficacy to child abuse. Dixon, Browne, and Hamilton-Giachritsis (2005) identified parental mental health problems, like depression, as risk factors for between parental maltreatment and offspring victimization. Sedlak et al., (2020) found the rates of abuse for children in rural areas were nearly two times higher than for children in major urban areas.

Conceptual Framework

Health Belief Model

The Health Belief Model (HBM) was utilized in developing the curriculum for the PPD webinar for WIC staff members of Illinois. The HBM focuses on the relationship between beliefs and behaviors and provides a way to understand and predict whether a staff member will perform the necessary action to prevent an adverse health condition such as PPD. The seven

steps in this model include perceived severity, perceived susceptibility, perceived benefits, perceived barriers, modifying variables, cues to action, and self-efficacy (Affedize, 2017). The curriculum for the PPD webinar was designed to address the seven steps for the WIC staff member.

1. Perceived severity. This refers to the belief of the individual of getting the disease will cause harm or disability (Affedize, 2017). For the WIC staff, this is the belief that PPD can cause harm to the WIC client and their family.
2. Perceived susceptibility. This refers to the belief of the person's chances of getting the adverse health condition (Affedize, 2017). For the WIC staff, this is the belief that the WIC population is at higher risk for PPD.
3. Perceived benefits. This refers to the belief of how effective a preventive action will be in actually preventing one from getting the adverse health condition (Affedize, 2017). For the WIC staff, this is the belief of how effective PPD education will be in actually preventing an adverse condition from PPD in their clients.
4. Perceived barriers. This refers to the belief that the preventive action is unnecessary (Affedize, 2017). For the WIC staff, this is belief that that education on PPD is unnecessary due to the personal beliefs of the WIC clients.
5. Cues to action. This refers to the triggers that prompt the individual to implement preventative action (Affedize, 2017). For the WIC staff, these are the daily interactions with mothers that are postpartum. Plus, WIC staff members are in a position to see mothers before their postpartum follow up with their obstetrician.

6. Self-efficacy. This refers to the person's belief that they can implement the required preventive action (Affedize, 2017). For the WIC staff, this is the individual's belief that she or he is capable of making a difference in the health of the WIC client.
7. Modifying factors. This refers to the individual's personal characteristics, like age, sex, and personality, which can influence the preventive action (Affedize, 2017). For the WIC staff, these are their personal characteristics along with the clinic's mission.

Methodology

Needs Assessment

The project invite (see Appendix B) showed a 60% of the health departments in region three want more information regarding PPD and resources available. A SWOT analysis of implementing PPD education in WIC staff members was performed.

Strengths. WIC staff members interact with a population that is at risk for PPD and already have foundational PPD knowledge.

Weakness. It is unknown how receptive the WIC staff will be to an optional educational webinar.

Opportunity. The WIC clinics are on the forefront of identifying PPD in an at-risk population. Increasing the WIC staff's knowledge base on PPD will provide an opportunity to bring awareness to this prevalent health condition that can significantly affect the well-being of the mother as well as the child.

Threats. Threats to the success of the PPD webinar project include the stigmas that surround PPD and the barriers that prevent staff members from increasing their knowledge base.

Project Design

A QI project will be implemented utilizing an educational webinar among WIC staff members to empower them with increased knowledge about identifying PPD and resources available to treat and support postpartum clients.

Setting

The link to the PPD webinar was distributed by M. Theleman, Director of Nursing at Woodford County Health Department, to the WIC coordinators in Woodford, Peoria, and Tazewell counties located in Illinois (see Appendix C). Then the WIC coordinators forwarded the link to the PPF webinar on to their staff members within the WIC clinic. The staff members were instructed to view the webinar on the computer of their choice during work hours.

Population

The targeted population was staff members working in the WIC clinics located in Woodford, Peoria, and Tazewell counties located in Illinois. WIC staff members were identified as anyone that comes in contact with the WIC client in the health department. This includes clerks, registered nurses, nutritionists, and case managers.

Tools

A PPD webinar was created utilizing the screencast-o-matic© screencast creation tool. Participants were asked to complete a pre-survey before viewing the webinar (see Appendix D). Following the webinar, participants were asked to complete a post-survey (see Appendix E).

Project Plan

A PPD webinar was created utilizing the screencast-o-matic© screencast creation tool (see Appendix F). The pre and post surveys were created using the online survey software Survey Monkey. The links to the PPD webinar and the pre and post surveys were distributed to

the WIC staff members in Woodford, Peoria, and Tazewell counties located in Illinois. The link to the pre-survey explained the QI project, ethical considerations, and informed consent. Participants were asked to complete the pre-survey, view the PPD webinar, and then access the link to the post-survey to receive their continuing education credit.

Smart Goals. The project will provide WIC staff members in three health departments located in Illinois an optional education webinar on PPD. After watching the webinar, the participant will demonstrate increased confidence in identifying signs of PPD, and resources available for women to combat PPD.

Data Analysis. Collection of the pre and post webinar survey data was completed through Survey Monkey.

Institutional Review Board. In April 2018, a PowerPoint presentation (see Appendix F) pertaining to the PPD webinar was submitted to the Bureau Chief of the Department of Human Services to obtain permission to make the PPD webinar available to all Illinois health departments (see Appendix F). C. Herriott (Interim Director of WIC) responded with initial comments regarding the PowerPoint but was unable to completely review the project to give permission to conduct a webinar for the entire State of Illinois WIC staff at that time (see Appendix G).

Permission for the project was also obtained from the Bradley University Committee on the Use of Human Subjects in Research (CUHSR) (see Appendix H). No personal identifying information was collected, thus ensuring participant confidentiality. A paragraph explaining the QI project, ethical considerations, and informed consent was included with the pre-test. Completion of the pre-test indicated informed consent.

Due to extensive delays from the State of Illinois, which were exacerbated by the recent government shutdown, the decision was made to offer the PPD webinar regionally instead of state-wide. Permission to modify the project to offer the webinar to three regional county health departments (Woodford, Tazewell, and Peoria) instead of all health departments in Illinois was obtained from the Bradley University CUHSR (see Appendix I).

Cost. Funding of the project was not received from the health departments or WIC clinics. Free software obtained through the Internet was utilized to create the webinar. Survey Monkey is a free online survey platform. Continuing education credits were provided through Illinois Public Health Nurse Administrators (IPHNA) (see Appendix J). The little funding required fell on the project leader.

Outcomes

Analysis of the implementation process. The links to the PPD webinar and the pre and post surveys were distributed to the WIC staff members in Woodford, Peoria, and Tazewell counties located in Illinois. Participants were asked to complete the pre-survey, view the PPD webinar, and then access the link to the post-survey to receive their continuing education credit.

Analysis of project outcome data (see Appendices L&M). Four participants completed the pre-survey, while six participants completed the post-survey. Question one: *How confident do you feel in identifying signs of postpartum depression?* Before the webinar 25% (n=1) responded that they were not confident, 50% (n=2) responded that they were somewhat confident, and 25% (n=1) responded that they were confident. After viewing the webinar, 50% (n=3) responded that they were somewhat confident and 50% (n=3) responded that they were confident. Question two: *How confident do you feel in identifying a resource available to combat postpartum depression?* Before the webinar 25% (n=1) responded that they were unsure, 50% (n=2) responded that they were not at all confident, and 25% (n=1) responded that they were unsure. After viewing the webinar 66.67% (n=4) responded that they were confident and 33.33% (n=2) responded that they were somewhat confident. Question three: *Please select the*

best definition of postpartum depression? Before the webinar 100% (n=4) responded with the correct answer. After viewing the webinar 100% (n=6) responded with the same correct answer. Question four: *A diet rich in Omega 3 can aid in treating postpartum depression?* Before the webinar 25% (n=1) answered false and 75% (n=3) answered true. After the webinar 33.33% (n=2) answered false and 66.67% (n=4) answered true. Question five: *One out of ___ mothers experience depression or anxiety during pregnancy or postpartum?* Before the webinar 25% (n=1) answered seven and 75% (n=3) answered three. After viewing the webinar 66.67% (n=4) answered seven and 33.33% (n=2) answered three.

Qualitative data. Question seven on the post-survey was blank for individuals to write in comments. One responded with, "Very informative and great resources for our clients", another responded with, "Great resources on a very important topic".

Discussion

Summary of major findings and outcomes. Due to a small sample size and participants not following directions, a t-test could not be performed to see if there was a statistically significant difference in knowledge after viewing the PPD webinar. However, there are several clinically significant findings. Before viewing the webinar 25% of the participants responded that they were not confident in identifying signs of PPD while after viewing the webinar 50% of the participants responded that they were confident. In response to identifying a resource to add for PPD 50% of the participants responded that they were not at all confident before the webinar while after the webinar 66.67% of the participants responded that they were confident. For the question if Omega 3 can aid in treating PPD before the webinar 75% of the participants answered correctly, whereas only 66.67% answered correctly after the viewing the webinar. It was unclear why there was a decrease in the correct answer after participants viewed the webinar. Before the webinar only 25% of the participants answered correctly regarding the question regarding the ratio of mothers that experience depression or anxiety during pregnancy or postpartum. After viewing the webinar 66.67% of the participants answered correctly.

Limitations. The project presented some unavoidable delays in getting permission from the state of Illinois to offer the webinar state-wide. The sample size was small and not every participant followed the directions.

Future Research. It is hoped that the PPD webinar can be open to WIC staff state-wide and even nationally to obtain a larger sample size. Future research is needed to provide insight pertaining to PPD among WIC clients and the importance it plays on WIC's nutritional goals.

Nursing. Data gathered from previous research on PPD showed a high level of depression among WIC clients. Evidence-based education on PPD and resources available to combat this condition needs to be available for WIC staff members so early recognition and treatment can be utilized to decrease the prevalence of depression among mothers. The role of the nurse practitioner can be utilized at WIC clinics to help in a positive way regarding PPD symptom identification and early depression management of the female client, which could aid in decreasing the prevalence of maternal depression.

Health policy. It is recommended by this author that WIC clinics create a policy for mandatory PPD education for all WIC staff and clinics to have a list of valuable resources to offer women who suffer from this condition.

Conclusion

DNP essentials. The Doctor of Nursing Practice (DNP) project was a requirement for completion of the DNP degree. The PPD webinar for WIC staff was a quality improvement project that demonstrated aspects of the DNP essential competencies as defined by the American Association of Colleges of Nursing.

Essential I: Scientific Underpinning for Practice. The first DNP Essential competency requires the student to have the ability to analyze and evaluate knowledge and information from multiple sources and disciplines to improve health care to patients and populations (American Association of Colleges of Nursing [AACN], 2006). The DNP student demonstrated skill

attainment in this essential through the development of a literature review, an educational webinar, a proposal and defense.

Essential II: Organizational and Systems Leadership for Quality Improvement and Systems Thinking. The second DNP Essential requires the student to show skills of navigating complex organizations and/or systems to carry out meaningful change at a large scale (AACN, 2006). The DNP student exhibited skill attainment in this essential through collaboration with the project team to make sure appropriate material was utilized in the webinar.

Essential III: Clinical Scholarship and Analytical Methods for Evidence-Based Practice. The third DNP Essential requires the student has the capability to translate relevant research into evidence-based practice with an emphasis on evaluation, reliability, safety, and quality (AACN, 2006). The DNP student exhibited skill attainment in this essential through the research of evidence-based practice to utilize in the webinar. The DNP student also utilized technology to gather data in order to analyze and evaluate the outcomes of the DNP project.

Essential IV: Information Systems/Technology and Patient Care Technology for the Improvement and Transformation of Health Care. The fourth DNP Essential competency requires utilization of information technology to enhance and support the provision of healthcare to patients and populations (AACN, 2006). The DNP student demonstrated skill attainment in this essential by designing an educational webinar on PPD and resource available to combat this illness specific for low income mothers. The DNP student also expressed skill in this essential through the protection of patient privacy and human rights by applying for and receiving institutional review board approval.

Essential VI: Interprofessional Collaboration for Improving Patient and Population Health Outcomes. The sixth DNP Essential competency requires the student to demonstrate interprofessional collaboration within the team to promote quality healthcare for patients and

populations (AACN, 2006). The DNP student displayed ability in this skill by participating in interprofessional collaboration within the project team in order to create an educational webinar for WIC staff, along with identifying valuable resources to battle PPD.

Essential VII: Clinical Prevention and Population Health for Improving the Nation's Health. The seventh DNP Essential competency involves the ability to approach the provision of health care with an attitude of disease prevention and health promotion for populations (AACN, 2006). The DNP student demonstrated this capability by providing an educational webinar on signs and symptoms on how to identify PPD in WIC clients. The DNP student also addressed this essential by identifying an essential gap in identifying PPD in mothers who recently gave birth.

Essential VIII: Advanced Nursing Practice. The eighth DNP Essential competency includes the need for advanced nursing practice in the particular specialty area (AACN, 2006). The DNP student manifested this Essential through calling for a practice change in WIC clinics to employee nurse practitioners to identify and treat PPD in WIC clients.

Plan for dissemination. It was hoped that this webinar would be available for WIC staff members in the future and a part of their training process. The webinar was closed at the end of March 2019 and no longer available for WIC staff. The author will go on to submit results to the Journal of Public Health. This journal invites submission of papers on any aspect of public health research and practice (https://academic.oup.com/jpubhealth).

Attainment of personal and professional goals. The author accomplished her personal and professional goal of developing a Doctorate level webinar derived of evidence-based material on postpartum depression and its prevalence in the WIC population.

Timeline

Development of the Webinar May 3-July 9, 2018

Webinar is open March 1 -30, 2019

Data Analysis April 1- 15, 2019

Finalization of Data April 20, 2019

References

EPDS [Measurement instrument]. (1987). Retrieved from http://www.fresno.ucsf.edu/pediatrics/downloads/edinburghscale.pdf

Affedize, E. (2017). The Health Belief Model: A conceptual framework for preventing HIV and AIDS through the ABC model. Retrieved from https://www.ghanaweb.com/

American Association of Colleges of Nursing. (2006). The essentials of doctoral education for advanced nursing practice. Washington, DC: Author.

American Psychiatric Association (APA). (2000). *Diagnostic and statistical manual of mental disorders*. Washington, DC: American Psychiatric Press.

BabyCenter Medical Advisory Board. (2016). Your six-week postpartum checkup. Retrieved from www.babycenter.com/

Barnhart, S., & Maguire-Jack, K. (2016). Single mothers in their communities: The mediating role of parenting stress and depression between social cohesion, social control and child maltreatment. *Children and Youth Services Review*.

Beck, C., & Gable, R. (2002). Postpartum depression screening scale. *Nursing Research*, 52, 296-306. http://dx.doi.org/10.1097/00006199-200309000-00004

Byatt, N., Biebel, K., Friedman, L., Debordes-Jackson, G., Ziedonis, D., & Pbert, L. (2013). Patient's view on depression care in obstetric settings: How do they compare to the views of perinatal health care professionals? *Gen Hosp Psychiatry*, *36*, 598-604. http://dx.doi.org/10.1016/j.genhosppsych.2013.07.011

Cadzow, S., Armstrong, K., & Fraser, J. (1999). Stressed parents with infants: Reassessing physical abuse risk factors. *Child Abuse & Neglect*, *23*, 845-853. http://dx.doi.org/10.1016/S0145-2134(99)00063-0 s

Centers for Disease Control and Prevention. (2009). *PRAMStat: Explore Prams data by state* [Annual report]. Retrieved from https://nccd.cdc.gov/

Choi, H., Yamashita, T., Wada, Y., Nurumoto, J., Nanri, H., Fujimori, A., ... Fukui, K. (2010). Factors associated with postpartum depression and abusive behavior in mothers and infants. *Psychiatry and Clinical Neurosciences*, *64*, 120-127. http://dx.doi.org/10.1111/j.1440-1819.2010.02063.x

Committee on Obstetric Practice. (2015, May). Screening for perinatal depression. *The American College of Obstetricians and Gynecologists*, *125*, 1268-1271.

Cox, J., Holden, M., & Sagovsky, R. (1987). Detection of postnatal depression Development of the 10-item Edinburgh postnatal depression scale. *British Journal of Psychiatry*, *150*, 782-786. Retrieved from

Dixon, L., Browne, K., & Hamilton-Giachritsis, C. (2005). Risk factors of parents abused as children: A mediational analysis of the intergenerational continuity of child maltreatment (Part I). *Journal of Child Psychology and Psychiatry*, *46*, 47-57. http://dx.doi.org/10.1111/j.1469-7610.2004.00339.x

Donaberdian, A. (1966, July). Evaluating the quality of medical care. *The Milbank Memorial Fund Quarterly*, *44(3)*, 166-206. Retrieved from www.jstor.org/stable/3348969

Eberhard-Gran, M., Eskild, A., Tambs, K., Opjordsmoen, S., & Samuelsen, S. (2001). Review of validation studies of the Edinburgh postnatal depression scale. *Acta Psychiatrica Scandinavica*, *104(4)*, 243-249. http://dx.doi.org/10.1111/j.1600-0447.2001.00187.x

Flynn, H., Henshaw, E., O'Mahen, H., & Forman, J. (2010). Patient perspectives on improving the depression referral processes in obstetrics settings: A qualitative study. *General Hospital Psychiatry*, *32*, 9-16. http://dx.doi.org/10.1016/j.genhosppsych.2009.07.005

Gibson, J., McKenzie-McHarg, K., Shakespeare, J., Price, J., & Gray, R. (2009). A systematic review of studies validating the Edinburgh Postnatal Depression Scale in antepartum and postpartum women exploratory factor analysis in psychological research. *Acta Psychiatrica Scandinavica*, *119(5), 350-364*, 350-364. http://dx.doi.org/10.1111/j.1600-0447.2009.01363.x

Goodman, J. (2004). Paternal postpartum depression, its relationship to maternal postpartum depression, and implications for family health. *Journal of Advanced Nursing*, *45*, 26-35. http://dx.doi.org/10.1046/j.1365-2648.2003.02857.x

Groh, C. (2012, February). Depression in rural women: implications for nurse practitioners in primary care settings. *Journal of the American Association of Nurse Practitioners*, *25*, 84-90. http://dx.doi.org/10.1111/j.1745-7599.2012.00762.x

Hardin, B. (1994). *Crisis nursery care Respite for children at risk of abuse and neglect* [Fact sheet]. Retrieved from National Resource Center for Respite and Crisis Care Services: www.archrespite.org

Heneghan, A., Claudron, L., Storfer-Isser, A., Park, E., Kelleher, K., Stein, R., ... Horwitz, S. (2007). Factors associated with identification and management of maternal depression by pediatricians. *Pediatrics*, *119*, 444-454. http://dx.doi.org/10.1542/peds.2006-0765

Holopainen, D. (2002). The experience of seeking help for postnatel depression. *The Australian Journal of Advanced Nursing*, *19*, 39-44.

Hutto, H., Kim-Godwin, Y., Pollard, D., & Kemppainen, J. (2011). Postpartum depression among white, African American, and Hispanic low-income mothers in a rural Southeastern North Carolina. *Journal of Community Health Nursing*, *28(1)*, 41-53. http://dx.doi.org/10.1080/07370016.2011.539088

Ko, J., Rockhill, K., Tong, V., Morrow, B., & Farr, S. (2017, February 17). Trends in postpartum depressive symptoms-27 states, 2004, 2008, and 2012. *MMWR*, *66(6)*, 153-158. Retrieved from www.cdc.gov

Kurz, B. (2005). Depression and mental health service utilization among women in the WIC. *Journal of Ethnic & Cultural Diversity in Social Work*, *14*, 81-102. http://dx.doi.org/10.1300/J051v14n03_05

Lieber, A. (2018). Major depression (Unipolar depression) Major depressive disorder can often be treated for better quality of life. *Psycom*.

Mayberry, L., Horowitz, J., & Declercq, E. (2007). Depression symptoms, prevalence and demographic risk factors among U.S. women during the first 2 years postpartum. *Journal of Obstetric, Gynecologic, & Neonatal Nursing*, *35*, 542-549. http://dx.doi.org/10.1111/j.1552-6909.2007.00191.x

Mollard, E., Hudson, D., Ford, A., & Pullen, C. (2016). An integrative review of postpartum depression in rural U.S. communities. *Archives of Psychiatric Nursing*, *30*. http://dx.doi.org/10.1016/j.apnu.2015.12.003

Nair, P., Schuler, M., Black, M., Kettinger, L., & Harrington, D. (2003, February). Cumulative environmental risk in substance abusing women: early intervention, parenting stress, child abuse potential and child development. *Child Abuse & Neglect*, *27*, 997-1017. http://dx.doi.org/10.1016/S0145-2134(03)00169-8

National Institute of Mental Health. (2016). *Postpartum depression facts* [Fact sheet]. Retrieved from https://www.nimh.nih.gov/health/publications/postpartum-depression-facts/index.shtml

National Rural Health Association. (2012). *Health care workforce distribution and shortage issues in rural America* [Policy brief]. Retrieved from www.ruralhealthweb.org/

Orhon, F., Ulukol, B., & Soykan, A. (2007). Postpartum mood disorders and maternal perceptions of infant patterns in well-child follow-up visits. *Acta Paediatrica*, *96*, 1777-1783. http://dx.doi.org/10.1111/j.1651-2227.2007.00557.x

Pearlstein, T., Howard, M., Salisbury, A., & Zlotnick, C. (2009, April). Postpartum depression. *American Journal of Obstetrics & Gynecology*, *200*, 357-364. http://dx.doi.org/10.1016/j.ajog.2008.11.033

Pooler, J., Perry, D., & Ghandour, R. (2013). Prevalence and risk factors for postpartum depressive symptoms among women enrolled in WIC. *Maternal and Child Health*, *17*, 1969-1980. http://dx.doi.org/10.1007/s10995-013-1224-y

Price, S., & Procter, E. (2009). A rural perspective on perinatal depression: Prevalence, correlates, and implications for help-seeking among low income women. *The Journal of Rural Health*, *25*, 158-166. http://dx.doi.org/10.1111/j.1748-0361.2009.00212.x

Rahman, A., Iqbal, Z., Bunn, J., Lovel, H., & Harrington, R. (2004, September). Impact of maternal depression on infant nutritional status and illness. *Arch Gen Psychiatry*, *61*, 946-952. Retrieved from www.archgenpsychiatry.com/

Reck, C., Hunt, A., Fuchs, T., Weiss, R., Noon, A., Moehler, E., Downing, G., E, Tronick, E., Mundt, C. (2004). Interactive regulation of affect in postpartum depressed mothers and their infants: an overview. *Psychopathology*, *37*, 272-280. http://dx.doi.org/10.1159/000081983

Sears, S., Danda, C., & Evans, G. (1999). PRIME-MD and rural primary care: Detecting depression in a low income rural population. *Professional Psychology: Research and Practice*, *30*, 357-360. http://dx.doi.org/10.1037/0735-7028.30.4.357

Sedlak, A., Mettenburg, J., Basena, M., Petta, I., McPherson, K., Greene, A., & Li, S. (2010). *Fourth national incidence study of child abuse and neglect (NIS4): Report to Congress*. Retrieved from Acf.hhs.gov: https://www.acf.hhs.gov/sites/default/files/opre/nis4_report_congress_full_pdf_jan2010.pdf

Sriraman, N., Pham, D., & Kumar, R. (2017, December). Postpartum depression: What do pediatricians need to know? *Pediatrics in Review*, *38*(12), 541-551.

United States Department of Agriculture. (2017). *Women, infants, and children (WIC)*. Retrieved from www.fns.usda.gov/

US National Library of Medicine. (2017). *Postpartum depression*. Retrieved from https://medlineplus.gov/

USDHHS. (2010). *Healthy people 2020*. Retrieved from https://www.healthypeople.gov/sites/default/files/HP2020_brochure_with_LHI_508_FNL.pdf

Widom, C., Czaja, S., Bentley, T., & Johnson, M. (2012). A prospective investigation of physical health outcome in abused and neglected children: New Findings for a 30-Year follow up. *American Journal of Public Health*, *6*, 1135-1144. http://dx.doi.org/http://dx.doi.org/10.2105/ajph.2011.300636

World Health Organization. (2015). *Depression* [Fact sheet]. Retrieved from http://www.who.int/mediacentre/factsheets/fs369/en

Appendix A
EPDS

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

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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)

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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

Appendix B
Survey Invite

Research Questions

I am a nurse practitioner student from Bradley University working with Melissa Theleman at Woodford CHD. I am collecting data to develop a webinar for *all* WIC Staff on resources and education specific to postpartum depression or "baby blues". Please help in data collection by participating in the following survey. Thank you for your time.
jlemmerman@mail.bradley.edu (questions or comments)

1. Have you heard of a crisis nursery?

- ◯ No
- ◯ Yes

2. In your county, how far do clients have to travel to a attend a class/or group that talks about parent stress, or an educational parenting class?

- ◯ 0-10 miles
- ◯ 10-20 miles
- ◯ 20-30 miles
- ◯ 40 plus miles

3. Do you utilize the Edinburgh Postnatal Depression Screening (EPDS) Tool in your clinic?

http://www.fresno.ucsf.edu/pediatrics/downloads/edinburghscale.pdf

- ◯ Yes
- ◯ No, we do not screen patients
- ◯ No, we use another tool
- ◯ I am unaware of this screening tool

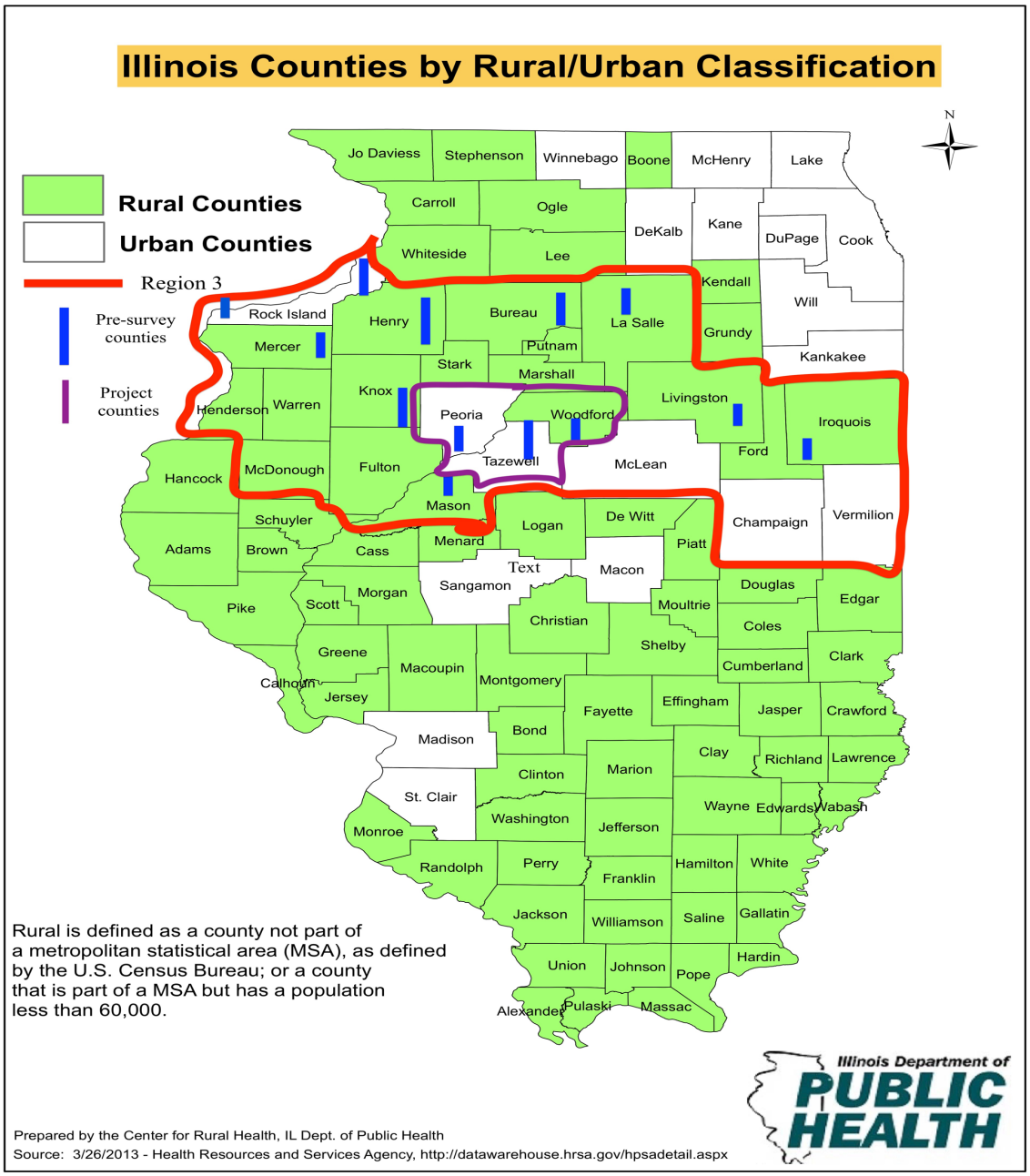
4. If your clinic utilizes the EPDS, what do you do with the results?

- ◯ Nothing
- ◯ Forward the results on to patient's primary care provider (PCP) or OBGYN
- ◯ Other (please specify)

5. Would you and your clinic be interested in watching a Webinar on postpartum depression and regional resources for possible CEU credit? If so please leave the name of your facility below.

6. Comments:

Appendix C
Map of Illinos



Appendix D
Pre-survey

I am a nurse practitioner student from Bradley University working with Melissa Theleman at Woodford CHD. You are invited to participate in a research study. As a quality improvement project, I have developed a webinar for all maternal/child staff members on resources and education specific to postpartum depression or "baby blues". By answering the pre-survey and post-survey you are giving me consent to use your responses for data collection. No personal identifying information will be present with the responses. After the pre-survey you will be provided the link to the webinar. Following the webinar you will complete a post-survey and receive directions on how to claim your CEU credit. (1 hour CEU credit pending.) Please note, for CEU credit, you will have to list your email in the post-survey in order to receive your certificate. Your participation in this study will take approximately 60 minutes. Taking part in this study is voluntary. You may choose not to take part or may leave the study at any time. Comments concerns please email me at jlemmerman@mail.bradley.edu

Thank you,
Jessica Lemmerman BSN, RN

1. How confident do you feel in identifying signs of postpartum depression?

- ◯ Unsure
- ◯ Not Confident
- ◯ Somewhat Confident
- ◯ Confident

2. How confident do you feel in identifying a resource available to combat postpartum depression?

- ◯ Unsure
- ◯ Not at all Confident
- ◯ Somewhat Confident
- ◯ Confident

3. Please select the best definition of Postpartum depression?

- ◯ Feelings that occur after delivery that include insomnia, excessive energy, agitation, hearing voices, and extreme paranoia or speciousness.
- ◯ A disease causing mood swings, crying spells, anxiety and difficulty sleeping present after delivery and may last for up to two weeks.
- ◯ A major mood disorder that may cause symptoms of sadness, anxiety, and emptiness within a year after childbirth.

4. A diet rich in Omega 3 can aid in treating postpartum depression?

- ◯ False
- ◯ True

5. One out of _____ mothers experience depression or anxiety during pregnancy or postpartum.

- ◯ Ten
- ◯ Three
- ◯ Seven

6. Please click on the following link for the webinar
PPD webinar Education and Resources for WIC Staff
https://screencast-o-matic.com/u/Qf9X/WIC-postpartum-webinar

Appendix E
Post Survey

1. How confident do you feel in identifying signs of postpartum depression?

- ◯ Unsure
- ◯ Not Confident
- ◯ Somewhat Confident
- ◯ Confident

2. How confident do you feel in identifying a resource available to combat postpartum depression?

- ◯ Unsure
- ◯ Not at all Confident
- ◯ Somewhat Confident
- ◯ Confident

3. Please select the best definition of Postpartum depression?

- ◯ Feelings that occur after delivery that include insomnia, excessive energy, agitation, hearing voices, and extreme paranoia or speciousness.
- ◯ A disease causing mood swings, crying spells, anxiety and difficulty sleeping present after delivery and may last for up to two weeks.
- ◯ A major mood disorder that may cause symptoms of sadness, anxiety, and emptiness within a year after childbirth.

4. A diet rich in Omega 3 can aid in treating postpartum depression?

- ◯ False
- ◯ True

5. One out of _____ mothers experience depression or anxiety during pregnancy or postpartum.

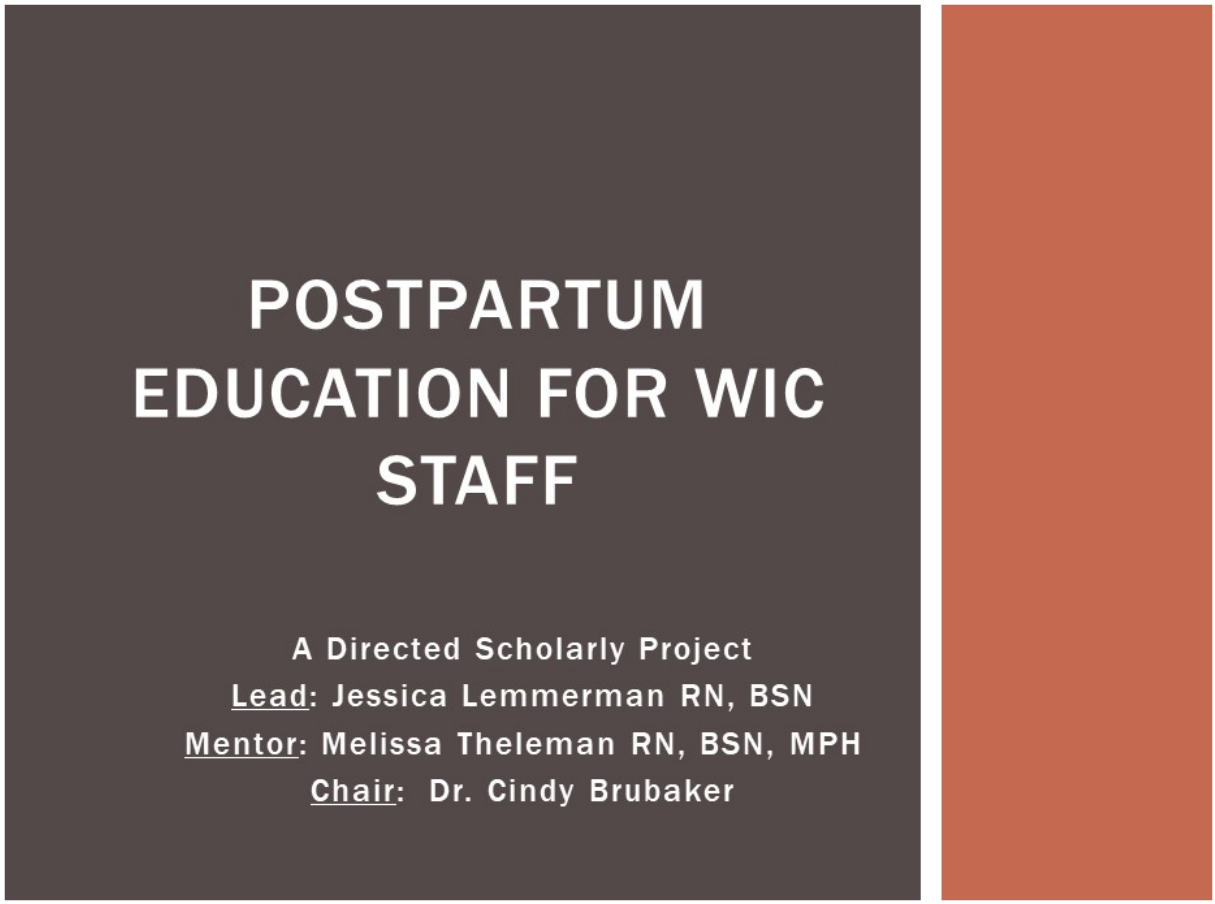
- ◯ Ten
- ◯ Three
- ◯ Seven

6. Nursing staff please submit your email for CEU credit

[ ]

7. Thank you for taking the time to participate in the project. Feel free to comment below

Appendix F
PowerPoint presentation



CONGRUENCE WITH ORGANIZATIONAL STRATEGIC PLAN

- WIC's mission is to safeguard the health of low-income women, infants, and children up to the age of five (USDA, 2017).
- I am proposing a Quality improvement project that will be implemented for WIC staff members to empower the first line of defense in identifying postpartum depression in low-income mothers, therefore safeguarding the health of the mother and infant.

PROJECT AIMS

- In order to address the issue of PPD, a quality improvement (QI) project will be implemented as an educational webinar for WIC staff in the state of Illinois. This webinar will include education on PPD and the prevalence in the WIC population. The project is a way to increase awareness of PPD while educating staff on identifying signs and symptoms of PPD.

METHOD

- After developing an educational webinar on PPD, a pre-test link delivered by email will be administered to the staff members that opt to watch the webinar. After viewing the webinar a post-test will be available. Quantitative and qualitative data will be gathered from WIC staff members through survey monkey.

GOALS

- The project will provide an optional education webinar, lasting 45-60 minutes, that is available to WIC staff members in Illinois. After watching the webinar, the individual will feel confident in identifying signs of PPD, along with identifying resources available for women to combat PPD.

DATA IN THE WEBINAR

- Pull from State approved material
  - Depression in Mothers: More Than the Blues
    A Toolkit for Family Service Providers
    SAMHSA

    Depression During and After Pregnancy
    A Resource for Women, Their Family, and Friends Booklet
    U.S.D.H.H.S

  - Government websites
    - National Institute of Mental Health
    - CDC
  - Medical Journals

WIC CLINICS

- **WIC attends to 53% of all infants born in the United States**
- Great opportunity to recognize and address postpartum depression
- Many times mothers are seen in the clinic before any other health care provider (10 day vs. 6 week postpartum check up)
- *Healthy People 2020* objective is to decrease the number of women delivering a live birth who experience postpartum depressive symptoms (USDHHS, 2010).

PPD PREVALENCE IN WIC CLIENTS

- Research shows WIC clients may be more vulnerable to the onset of depression
- **PPD has a 35% prevalence rate among low-income females living in a rural area**
- The prevalence rate for subclinical and clinical depression for women in WIC clinics was reported as two times higher versus U.S women overall.

INSTITUTE OF MEDICINE'S 1996 REPORT

- Showed support for WIC's involvement in assisting women with depression.
  - Appetite changes are a sign of depression
    - Nutrition education and access to nutritious foods may lessen the effects of the depression
    - the report also noted that WIC's focus on medical referrals and social support could benefit WIC mothers with diagnosed depression by minimizing the isolation experience by the mother
    - WIC serves as a link between women and mental health services

WIC'S SCOPE OF PRACTICE

- With proper training WIC staff are in a optimal position to identify PPD and refer mothers to mental health services to combat the effects PPD
- Assessing mental health status is a component of complete nutrition assessment
- WIC staff member can not diagnosis PPD but can offer referrals to assist in achieving a holistic healthy outcomes for their clients

POSTPARTUM DEPRESSION (PPD)

- PPD is one of the most common complications of childbirth and is defined as a major depressive disorder during and after pregnancy
- Postpartum depression affects up to 25% of new mothers, where postpartum blues have been reported to occur in 15-85% of women within the first 10 days after given birth
- Women who suffer from PPD are fighting a battle. They feel lost, misunderstood, unseen, and isolated.
- When mothers experience PPD, it is estimated 24% to 50% of their partners will also experience depression
- PPD may get in the way of taking care of herself and her baby
- PPD affected the maternal-infant bond and led to adverse outcomes for both the mother and the infant
- PPD has been identified as a risk factor for child abuse towards infants

SYMPTOMS

- Feeling sad, hopeless, empty, or overwhelmed
- Crying more often than usual or for no apparent reason
- Worrying or feeling overly anxious
- Feeling moody, irritable, or restless
- Oversleeping, or being unable to sleep even when her baby is asleep
- Having trouble concentrating, remembering details, and making decisions
- Experiencing anger or rage
- Losing interest in activities that are usually enjoyable
- Suffering from physical aches and pains, including frequent headaches, stomach problems, and muscle pain
- Eating too little or too much
- Withdrawing from or avoiding friends and family
- Having trouble bonding or forming an emotional attachment with her baby
- Persistently doubting her ability to care for her baby
- Thinking about harming herself or her baby.

PPD

- "Sometimes I don't want to hold my baby. If this is supposed to be the happiest time of my life, why does everything feel so wrong?"
- "I felt like I was supposed to be happy because I had a new baby, but I was putting on a happy face for everyone else"
- "After giving birth, I never brushed my hair, my teeth, or took a shower. I looked in the mirror one day and was really depressed. I thought, 'Look at me!' I had this glamorous life in LA, and now [in Indianapolis], I didn't."-Celebrity Kendra Wilkinson
- "[My husband] would ask what he could do to help, but knowing there was nothing he could do, I screamed expletives at him, behavior he had never experienced in the seven years we had been together," **Bryce Dallas Howard,** an actress in *The Twilight Saga: Eclipse*

TREATMENT

Depression does not have to be a life sentence, even though a person experiencing a depressive episode might feel like it is.

- **Talk Therapy:** This treatment involves talking one-on-one with a mental health professional (a counselor, therapist, psychologist, psychiatrist, or social worker). Types of counseling shown to be effective in treating postpartum depression are:
  - Cognitive behavioral therapy (CBT), which helps people recognize and change their negative thoughts and behaviors
  - Interpersonal therapy (IPT), which helps people understand and work through problematic personal relationships

TREATMENT

- **Medication:**
  - Antidepressant medications act on the brain chemicals that are involved in mood regulation. Many antidepressants take a few weeks to be most effective. While these medications are generally considered safe to use during breastfeeding, a woman should talk to her health care provider.

EDUCATION THAT IS APPROVED BY WIC FOR STAFF ON PPD

- Several State and local WIC programs have used this module to train staff: http://www.nhbreastfeedingtaskforce.org/pdf/breastfeeding_depression.pdf
- WICHEALTH.ORG Internet Education Modules – Mothers In Motion
- Webinars- http://public.health.oregon.gov/HealthyPeopleFamilies/wic/Pages/training.aspx.
- A self-study training course is available at http://fampod.org.
- Materials relevant to WIC staff, developed for Head Start, can be found at: http://www.ecmhc.org/maternal-depression/index.html.

RESOURCES FOR REFERRAL PROCESS TO A HEALTH CARE PROVIDER

- The Substance Abuse and Mental Health Services Administration (SAMHSA) Mental Health Treatment Locator is found at http://www.samhsa.gov/ and provides comprehensive information on mental health resources and/or facilities.
- MentalHealth.gov provides one-stop access to U.S. government mental health information
- http://www.mentalhealthamerica.net/ help individuals locate mental health treatment services, including affordable treatment for those without insurance, in their community.

COMBAT PPD RECOMMENDATIONS BY WIC

- Breastfeeding Education and Support
- Physical Activity
- Diet rich in Omega 3 fatty acids
- Vital Nutrients
  - Folate
  - Vitamin B-12
  - Vitamin D
  - Calcium
  - Iron
  - Selenium
  - Zinc

RESOURCES TO AID WITH PPD

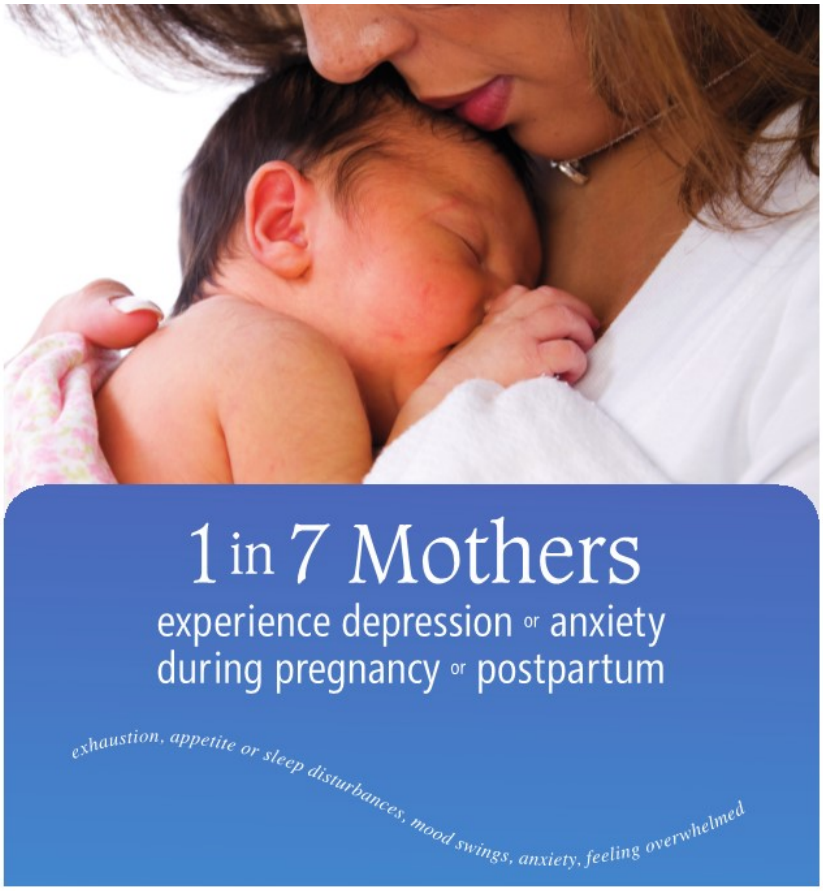
Postpartum Support International

- http://www.postpartum.net
- 1-800-944-4PPD

PPD Alliance of Illinois

- telephone and email support volunteers are women who have experienced pregnancy or postpartum mood disorders themselves and they provide peer-to-peer support
- www.PPDIL.org
- 1-847-205-4455

SAMHSA Substance Abuse and Mental Health Services Administration (SAMHSA): 1-800-662-HELP (4357)



YOUR NOT ALONE

Call your healthcare provider and Contact us for support and resources 1-800-944-4PPD
www.postpartum.net

CHAT WITH AN EXPERT RESOURCE

- **Postpartum Support International**
  - Host free, live phone sessions every Wednesday
  - During these sessions you can connect with other moms and dads, and talk with a expert about resources, symptoms, options and general information about perinatal mood and anxiety disorders from the privacy of your own phone. These sessions, facilitated by licensed mental health professionals, are informational only and open to anyone with questions and concerns.
  - First Monday of the month is available for chats for the dads
  - **Chat Number: 1-800-944-8766**
    Participant Code 73162

RESOURCES TO AID WITH PPD

- **Mother to Baby**
  Telephone: 866-626-6847
  MotherToBaby is dedicated to providing evidence-based information to mothers and the general public about medications and other exposures during pregnancy and while breastfeeding.

- **MOTHERS MATTER**
  - Support group in- **Davenport, IA/Rock Island/Moline, IL/Quad Cities Area**
  Time: Fourth Tuesday of each month, 6:00pm – 7:30pm
  Contact: Linda Crownover-Inch
  Email: lcrownoverinch@sbcglobal.net
  Telephone: 309-737-9255
  Lap babies are welcome!
  https://www.facebook.com/events/853140531437333/

RESOURCES TO AID WITH PPD

- **Nurturing Mom Group**
  155 E. Brush Hill Rd.
  Elmhurst Illinois
  Elmhurst Hospital Family Lounge, 3rd Floor, Main Building
  1st and 3rd Wednesdays of each month 12:15-1:30 pm.
  This group is designed for new and expectant mothers who may be experiencing any issues related to the transition to the role of motherhood. Babies are welcome. Contact: Linda Huelke-pfleger at 630-305-5086.
- **New Moms Dealing with Feelings**
  Springfield, IL
  Bi-monthly support group that is a safe place where moms will find support, comfort and encouragement. This is not a therapy group but an outlet for moms to connect with other moms experiencing feelings of sadness, anxiety, confusion, depression, anger and a general feeling of being overwhelmed.
  Meeting Time: Every other Wednesday from 1:30-2:30 PM
- **Meeting Location**: NICU Classroom on the 4th floor of the HSHS St. John's Children's Hospital
  Fee: None
  For more information call the **Parent Help Line at 1-217-544-5808 or 1-888-727-5889**
  or email Elizabeth.krah@hshs.org

RESOURCES TO AID WITH PPD

- Books
  - Bennett SS, Indman P. Beyond the Blues: A Guide to Understanding and Treating Prenatal and Postpartum Depression. San Jose, CA: Moodswings; 2006
  - Cooper PJ, Murray L, eds. Postpartum Depression and Child Development. New York, NY: Guilford; 1999
  - Kleiman KR, Raskin VD. This Isn't What I Expected: Overcoming Postpartum Depression. New York, NY: Bantam; 1994
  - Shields B. Down Came the Rain: My Journey Through Postpartum Depression. New York, NY: Hyperion; 2006 Other titles are available at www.postpartumstress.com/books/

RESOURCES TO AID WITH PPD CRISIS NURSERIES

State of Illinois has six crisis nurseries that provide respite care for mother's that need a break

- Crisis Nursery of Urbana, 1309 W. Hill Street, Urbana, Illinois 61801, Telephone (217) 337-2730
- Mini O'Beirne Crisis Nursery, 1011 North 7th Street, Springfield, IL 62702, Telephone (217) 585-6800
- Children's Home and Aid Society of Illinois/MotherHouse, Rockford, 910 2nd Ave. Rockford, Illinois 61104, Telephone (815) 962-4858
- Children's Home and Aid Society of Illinois/Children's Foundation, Bloomington, 403 South State Street Bloomington, IL 61701, Telephone (309) 827-0374
- Maryville Academy, 4015 N. Oak Park Avenue, Building B Chicago, IL 60634, Telephone (773) 205-3637
- Crittenton Centers, Peoria, 442 W. John Gwynn Jr. Avenue Peoria, Illinois 61605, Telephone (309) 674-0105

TIMELINE

- Development of the Webinar
  May 3-July 9, 2018
- Webinar is open
  August 1st- September 10, 2018
- Data Analysis
  September 17- October19, 2018
- Finalization of Data
  November 5, 2018

Appendix G
WIC Approval Email

Bradley Student

Herriot, Constance <Constance.Herriott@illinois.gov> Fri, Apr 27, 2018 at 3:58 PM

To: Jessie <jlemmerman@mail.bradley.edu>

Jessie,

I have many time-sensitive deadlines I am working on at this time and therefore am going to need some time to review the information you send. I have attached your PowerPoint with a few comments, but have not yet made it through the entire presentation. I do not see why you would not be able to conduct a webinar for State of Illinois WIC; as previously mentioned, we will just need to be on board with you throughout the process. I will try to add additional comments to the PowerPoint sometime next week.

Have a good weekend,

Constance

From: Jessie [mailto:jlemmerman@mail.bradley.edu]
Sent: Thursday, April 26, 2018 10:39 PM
To: Herriot, Constance <Constance.Herriott@illinois.gov>
Subject: [External] Bradley Student

[Quoted text hidden]

State of Illinois - CONFIDENTIALITY NOTICE: The information contained in this communication is confidential, may be attorney-client privileged or attorney work product, may constitute inside information or internal deliberative staff communication, and is intended only for the use of the addressee. Unauthorized use, disclosure or copying of this communication or any part thereof is strictly prohibited and may be unlawful. If you have received this communication in error, please notify the sender immediately by return e-mail and destroy this communication and all copies thereof, including all attachments. Receipt by an unintended recipient does not waive attorney-client privilege, attorney work product privilege, or any other exemption from disclosure.

PPDpowerpoint.pptx
11484K

Appendix H
CUHSR

CUHSR 36-18: Postpartum depression education for WIC Staff

Ross Fink <rf@fsmail.bradley.edu> Mon, Jun 18, 2018 at 4:33 PM
To: Jessica N Lemmerman <jlemmerman@mail.bradley.edu>
Cc: Cindy Brubaker <cindyb@fsmail.bradley.edu>, "Rast, Sharon" <srast@fsmail.bradley.edu>

Dear Investigators:

Your proposed study (CUHSR 36-18) Postpartum depression education for WIC Staff has been reviewed and was found to be exempt from full review under Category 2.

Your vita and ethics certificates are on file.

Be aware that future changes to the protocols must first be approved by the Committee on the Use of Human Subjects in Research (CUHSR) prior to implementation and that substantial changes may result in the need for further review.

While no untoward effects are anticipated, should they arise, please report any untoward effects to CUHSR promptly (within 3 days).

As this study was reviewed as exempt, no further reporting is required unless you change the protocol or personnel involved.

This email will serve as notice that your study has been reviewed unless a more formal letter is needed. Please let me know, and I will provide the letter.

Ross L. Fink, Ph.D.
Chairperson, CUHSR

Appendix I
CUHSR 2

DATE: 21 Feb 2019

TO: Jessica Lemmerman

FROM: Bradley University Committee on the Use of Human Subjects in Research

STUDY TITLE: Postpartum Depression Education for WIC Staff

CUHSR #: #36-18
INITIAL APPROVAL: 18 JUN 2018
SUBMISSION TYPE: Request for Minor Modification

ACTION: Approved Minor Modification
APPROVAL DATE: 21 Feb 2019
REVIEW TYPE: Exempt

The modifications to your study have been approved. These modifications include offering the webinar to three health departments (Woodford, Tazewell and Peoria) instead of all health departments in Illinois.

Be aware that future changes to the protocols must first be approved by the Committee on the Use of Human Subjects in Research (CUHSR) prior to implementation and that substantial changes may result in the need for further review.

While no untoward effects are anticipated, should they arise, please report any untoward effects to CUHSR promptly (within 3 days).

This change to the study will be noted on the next CUHSR meeting agenda. This email will serve as your written notice that the change to the study was approved prior to implementation. Thank you for alerting CUHSR of the proposed change.

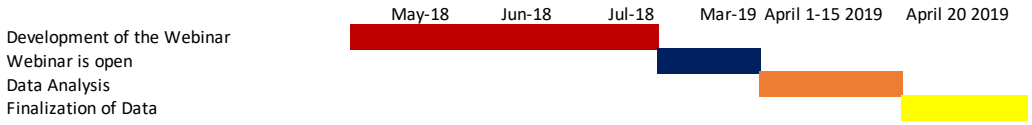
--
Andrew J Strubhar, PhD, PT
Associate Professor
Associate Department Chair
DPT Graduate Program Coordinator
Interim Chair CUHSR
Bradley University
Department of Physical Therapy and Health Science

1501 W. Bradley Ave
Peoria, IL 61625
(309)-677-3489
ajs@bradley.edu

Appendix J
CEU

CEU credit pending approval of project.

Appendix K
Timeline



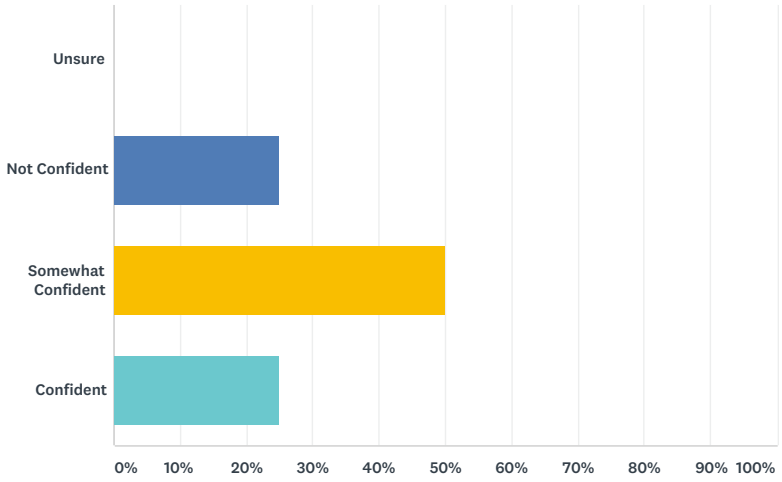
Development of the Webinar
May 3-July 9, 2018
Webinar is open
March 1 -30, 2019
Data Analysis
April 1- 15, 2019
Finalization of Data
April 20, 2019

Appendix L
Pre-survey Results

Pre-Survey

Q1 How confident do you feel in identifying signs of postpartum depression?

Answered: 4 Skipped: 0

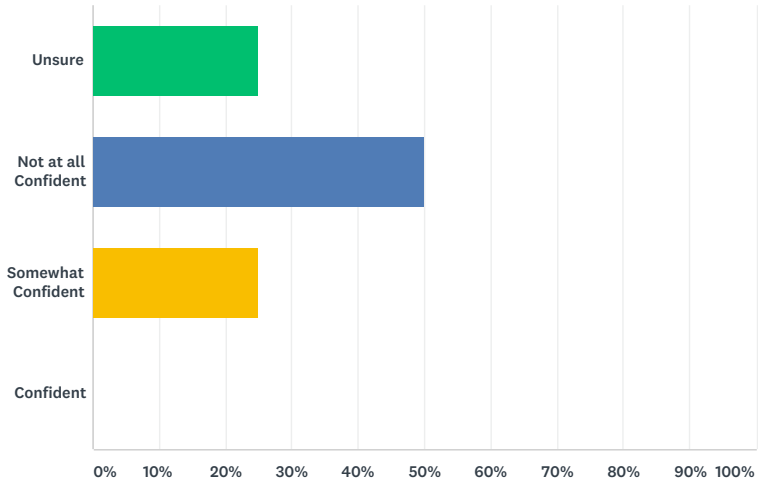


ANSWER CHOICES	RESPONSES	
Unsure	0.00%	0
Not Confident	25.00%	1
Somewhat Confident	50.00%	2
Confident	25.00%	1
TOTAL		4

Pre-Survey

Q2 How confident do you feel in identifying a resource available to combat postpartum depression?

Answered: 4 Skipped: 0

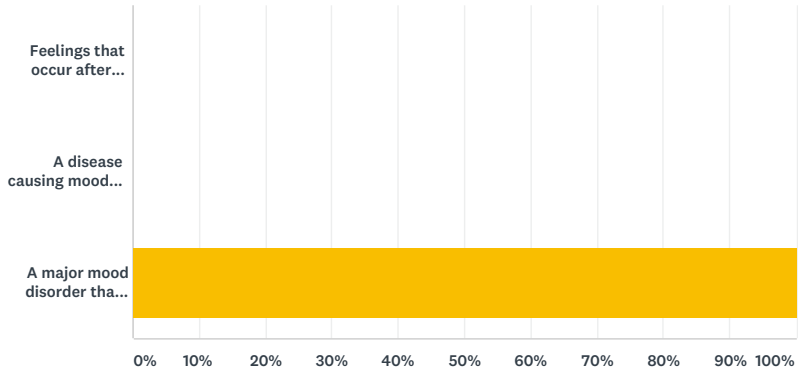


ANSWER CHOICES	RESPONSES	
Unsure	25.00%	1
Not at all Confident	50.00%	2
Somewhat Confident	25.00%	1
Confident	0.00%	0
TOTAL		4

Pre-Survey

Q3 Please select the best definition of Postpartum depression?

Answered: 4 Skipped: 0

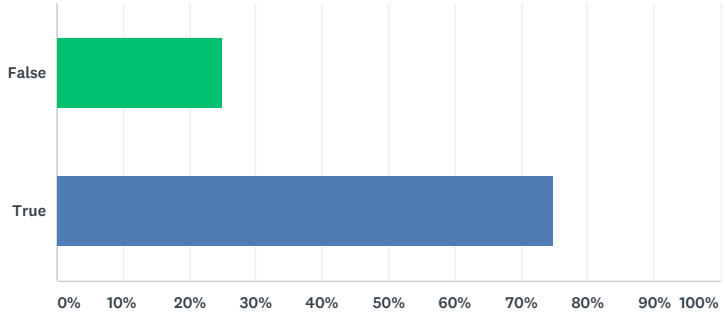


ANSWER CHOICES	RESPONSES	
Feelings that occur after delivery that include insomnia, excessive energy, agitation, hearing voices, and extreme paranoia or speciousness.	0.00%	0
A disease causing mood swings, crying spells, anxiety and difficulty sleeping present after delivery and may last for up to two weeks.	0.00%	0
A major mood disorder that may cause symptoms of sadness, anxiety, and emptiness within a year after childbirth.	100.00%	4
TOTAL		4

Pre-Survey

Q4 A diet rich in Omega 3 can aid in treating postpartum depression?

Answered: 4 Skipped: 0

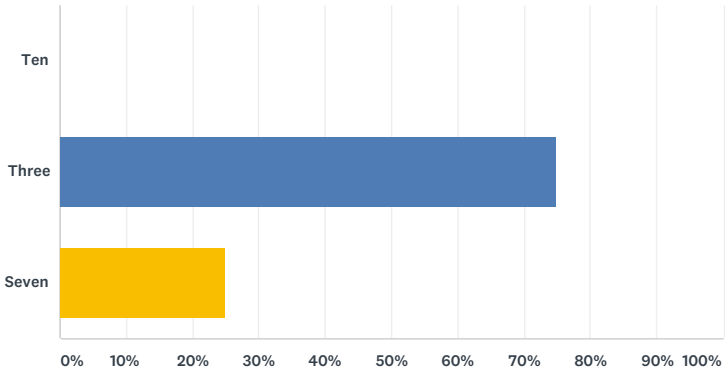


ANSWER CHOICES	RESPONSES	
False	25.00%	1
True	75.00%	3
TOTAL		4

Pre-Survey

Q5 One out of _____ mothers experience depression or anxiety during pregnancy or postpartum.

Answered: 4 Skipped: 0



ANSWER CHOICES	RESPONSES	
Ten	0.00%	0
Three	75.00%	3
Seven	25.00%	1
TOTAL		4

Pre-Survey

Q6 Please click on the following link for the webinarPPD webinar Education and Resources for WIC Staffhttps://screencast-o-matic.com/u/Qf9X/WIC-postpartum-webinar

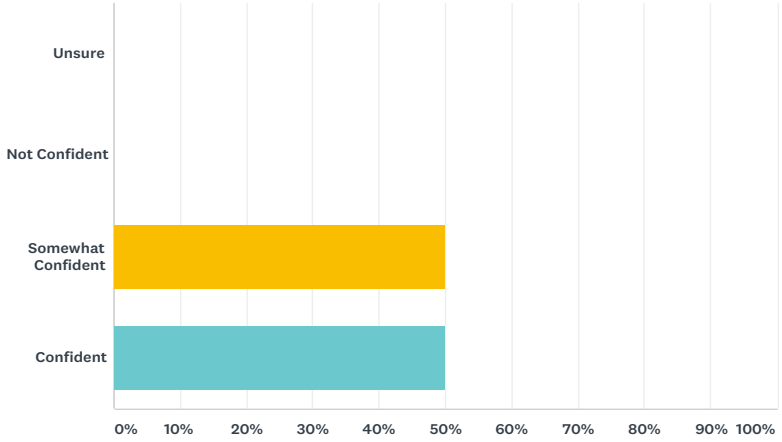
Answered: 1 Skipped: 3

Appendix M
Post-survey Results

Post-survey

Q1 How confident do you feel in identifying signs of postpartum depression?

Answered: 6 Skipped: 0

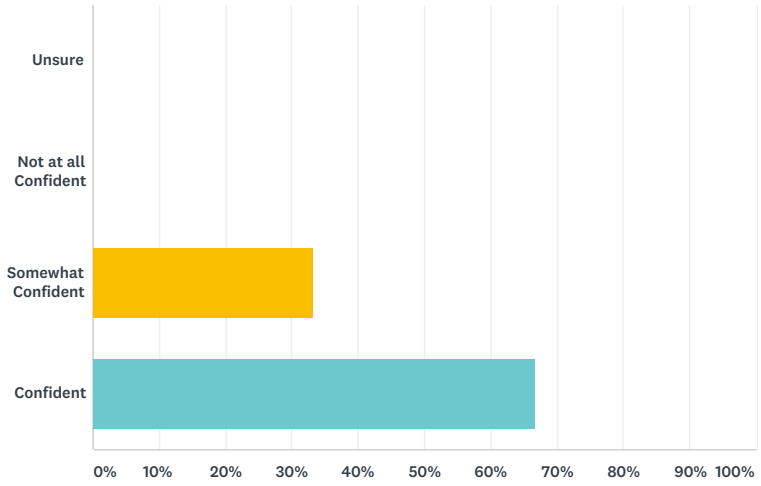


ANSWER CHOICES	RESPONSES	
Unsure	0.00%	0
Not Confident	0.00%	0
Somewhat Confident	50.00%	3
Confident	50.00%	3
TOTAL		6

Post-survey

Q2 How confident do you feel in identifying a resource available to combat postpartum depression?

Answered: 6 Skipped: 0

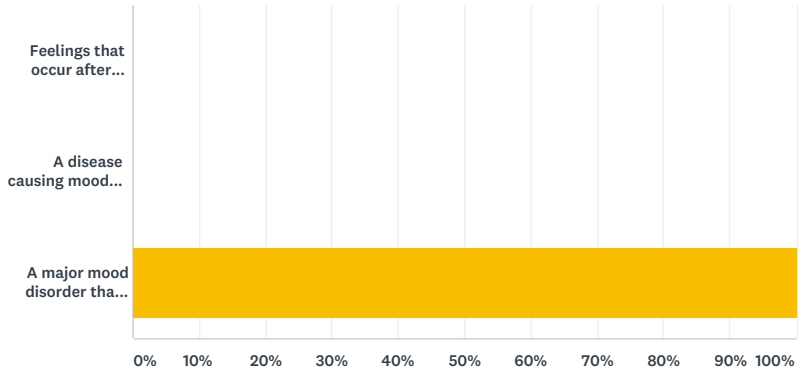


ANSWER CHOICES	RESPONSES	
Unsure	0.00%	0
Not at all Confident	0.00%	0
Somewhat Confident	33.33%	2
Confident	66.67%	4
TOTAL		6

Post-survey

Q3 Please select the best definition of Postpartum depression?

Answered: 6 Skipped: 0

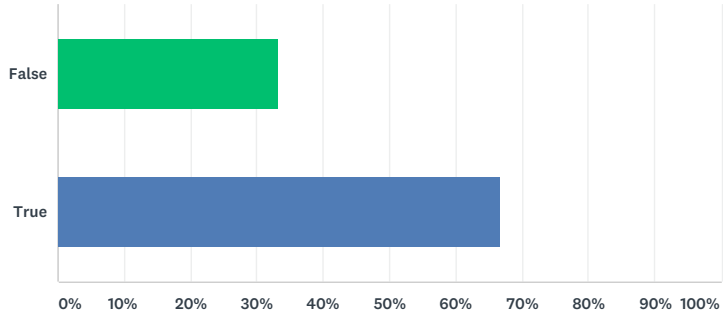


ANSWER CHOICES	RESPONSES	
Feelings that occur after delivery that include insomnia, excessive energy, agitation, hearing voices, and extreme paranoia or speciousness.	0.00%	0
A disease causing mood swings, crying spells, anxiety and difficulty sleeping present after delivery and may last for up to two weeks.	0.00%	0
A major mood disorder that may cause symptoms of sadness, anxiety, and emptiness within a year after childbirth.	100.00%	6
TOTAL		6

Post-survey

Q4 A diet rich in Omega 3 can aid in treating postpartum depression?

Answered: 6 Skipped: 0

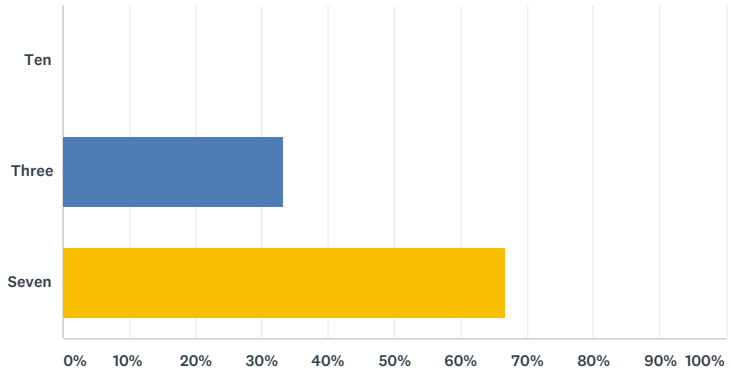


ANSWER CHOICES	RESPONSES	
False	33.33%	2
True	66.67%	4
TOTAL		6

Post-survey

Q5 One out of _____ mothers experience depression or anxiety during pregnancy or postpartum.

Answered: 6 Skipped: 0



ANSWER CHOICES	RESPONSES	
Ten	0.00%	0
Three	33.33%	2
Seven	66.67%	4
TOTAL		6

Post-survey

Q6 Nursing staff please submit your email for CEU credit

Answered: 2 Skipped: 4

Post-survey

Q7 Thank you for taking the time to participate in the project. Feel free to comment below

Answered: 2 Skipped: 4

7 / 7

One responded with, “Very informative and great resources for our clients”, another responded with, “Great resources on a very important topic”.