POSTPARTUM DEPRESSION SCREENING OF WOMEN VETERANS IN ALASKA

QUALITY IMPROVEMENT PROJECT

By

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A Project Submitted in Partial Fulfillment of the Requirements

for the Degree of

MASTER OF SCIENCE

in

Nursing Science

University of Alaska Anchorage

May 2017

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Abstract

Postpartum depression screening guidelines were updated by the American College of Obstetricians and Gynecologists and the United States Preventive Services Task Force in 2015 and 2016, respectively. Universal postpartum depression screening is recommended where previously it was not. Postpartum depression screening is relevant to the rapidly growing population of women Veterans served by the Veterans Health Administration (VA) as part of their comprehensive health care benefits. Little information was available on the postpartum depression screening practices within the Alaska VA Healthcare System. Using a quality improvement methodology, the author identified postpartum depression screening as a topic of interest. Current practice was assessed through a retrospective chart audit of all maternity consults placed during the fiscal year 2014. The chart audit revealed an 81% postpartum depression screening rate. Incomplete data limited a full statistical analysis; however, all women who returned to an Alaska VA clinic, received screening and treatment. An informational brochure was developed for women and their health care providers highlighting postpartum depression screening and treatment resources.

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Postpartum Depression Screening of Women Veterans in Alaska:

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Postpartum depression (PPD) screening clinical guidelines were recently updated. In 2016, the United States Preventive Services Task Force (USPSTF) updated its recommendations on screening for depression in adults. Pregnant and postpartum women are specifically identified in the target population, where the previous recommendations excluded pregnant women and did not address the postpartum period (Siu & USPSTF, 2016; USPSTF, 2009). The American College of Obstetricians and Gynecologists (ACOG) previously did not recommend universal screening for depression in pregnancy and the postpartum period (ACOG, 2010). As of 2015, recommendations include screening all patients at least once in the perinatal period for depression and anxiety (ACOG, 2015).

Depression is a significant condition in the female Veteran population. It was the most common condition for which women ages 18-44 years sought care at the Department of Veterans Affairs Veterans Health Administration (VA) during the fiscal year (FY) 2012 (Frayne et al., 2014). The number of women seeking services from VA for maternity care also increased from 351 deliveries in FY 2000 to over 2,000 deliveries in FY 2010 (Zephyrin et al., 2014). Reviewing the Women Veterans Health Care website, there is information on depression, but none on PPD. With the update in recommendations and growing population served, this was an appropriate time to step back and evaluate current practice on PPD screening in the Alaska VA Healthcare System (AVAHS).

Prevalence of Postpartum Depression

The estimated prevalence of PPD is widely varied depending on the method of screening, scoring criteria, and postpartum timeframe. Researchers agree it frequently occurs enough to

warrant screening. Interestingly, self-reported symptoms yielded lower rates than formal screening. Table 1 lists prevalence results from studies of postpartum women.

Table 1

Prevalence of Postpartum Depression

Source	Prevalence	Screening tool	Postpartum timeframe	Sample
Alcorn, O'Donovan, Patrick, Creedy, & Devilly, 2010	22.1% 27.0% 27.2%	EPDS	4-6 weeks 3 months 6 months	886 women in Australia
Balbierz, Bodnar-Deren, Wang, & Howell, 2015	8%	EPDS	3 months	945 women from large tertiary inner-city hospital in New York City
Beck, Gable, Sakala, & Declercq, 2011	63% 42%	PDSS-short form PHQ-2	1-12 months 7-18 months	1573 women nationally 902 women nationally
CDC, 2015	11.7%	Self-reported frequent PPD symptoms	2-6 months	37,090 women nationally
CDC, 2015	7.4%	Self-reported frequent PPD symptoms	2-6 months	1,106 women in Alaska
Mattocks et al., 2010[a]	32%	ICD-9 code for pregnancy & mental health condition	unreported	2966 women Veterans nationally
Nguyen et al., 2013	11%	PHQ-9	unreported	1,660 U. S. Active Duty Servicewomen
Schachman & Lindsey, 2013	50.7%	PDSS-short form	8 weeks	71 military wives in southeast U. S.
Yawn et al., 2009	28.7% 18.7% - 43.7%	EPDS PHQ-9	5-12 weeks	481 women nationally

Note. EPDS = Edinburgh Postnatal Depression Scale; CDC = Centers for Disease Control and Prevention; PDSS = Postpartum Depression Screening Scale; PHQ-2 = Patient Health Questionnaire two question form; ICD-9 = International Classification of Diseases, Ninth revision; PHQ-9 = Patient Health Questionnaire

[a]Data not specific to PPD; includes major and minor depression, bipolar disorder, post-traumatic stress disorder, schizophrenia, and anxiety disorder.

U. S. Preventive Services Task Force (USPSTF)

The USPSTF is an independent, volunteer panel of national experts in prevention and evidence-based medicine. The professional background of the panelists includes internal medicine, family practice, pediatrics, behavioral health, obstetrics and gynecology, and nursing. Created in 1984, the task force has convened annually since 1998 through acts of Congress. The panel members produce evidence-based recommendations on screenings, counseling services, and preventive medications to improve the health of all Americans (USPSTF, 2016).

American College of Obstetricians and Gynecologists (ACOG)

ACOG is a 501(c)(3) organization dedicated to the improvement of women's health since founded in 1951. It is the specialty's premier professional membership organization with over 57,000 members (ACOG, 2016). The members develop practice bulletins, committee opinions, and other educational materials for obstetric and gynecologic professionals. The committee opinion on perinatal depression screening was written by ACOG's Committee on Obstetric Practice. The committee consists of 15 appointed, actively practicing, obstetric physicians and meets twice annually.

Veterans Health Administration (VA)

The Veterans Health Administration is America's largest integrated health care system providing comprehensive care to more than 8.3 million Veterans annually. Eligibility for VA benefits is based on active military service and discharge or release under conditions other than dishonorable (VA, 2015). Historically, care has focused on male Veterans' health needs; however, in the most recent decade, a growing emphasis has been on women Veterans' health needs. One focus has been an investment in training the primary care provider (PCP) in women's health, so all primary care needs such as cancer screenings and contraception are

accomplished by one provider (Bergman, Frankel, Hamilton, & Yano, 2015). The majority of VA facilities, however, do not provide maternity care. Maternity care is primarily provided through the Non-VA (Fee) Medical Care system (Frayne et al., 2014). Pregnant women are referred by their VA PCP to an outside obstetric provider for their maternity care and the initial postpartum visit. VA pays for this outside care, and it may be at a partner DOD facility or an independent community clinic. Alternatively, women may choose to use their private health insurance or Medicaid instead of their VA benefits; creating unique challenges, especially in communication between VA and non-VA providers to coordinate pregnancy and postpartum care.

The current *VA/DoD Clinical Practice Guideline for Pregnancy Management* (VA & Department of Defense [DOD], 2009) states all women should be screened for depression at six to eight weeks gestation, 28 weeks gestation, and eight weeks postpartum using a standardized tool such as the Edinburgh Postnatal Depression Scale (EPDS) or Patient Health Questionnaire two question short form (PHQ-2). This guideline was published seven years before the updated USPSTF guidelines and six years before the updated ACOG guidelines. It is expected that the community obstetric providers "follow accepted clinical evidence based standards" (VA, 2012, p. 5) which differed before 2015 from the VA/DOD policy. It is possible that this may have caused a gap in PPD screening if outside providers followed previous USPSTF or ACOG guidelines.

Purpose

The purpose of this project was to evaluate PPD screening practices in accordance with current USPSTF and ACOG guidelines and VA/DOD policy. Using a quantitative approach, the data obtained was analyzed for compliance with these guidelines and policy. The analysis

looked for potential differences in care between (a) women seen at a DOD facility versus a community facility, (b) women with a history of depression or anxiety versus no history, and (c) women with active depression versus those without. The results were used to guide interventions to improve awareness of PPD screening in the AVAHS primary care clinic.

Literature Review

A literature review was conducted to obtain information regarding PPD screening in primary care. Relevant studies and published articles were identified through searches of databases including CINAHL Plus with Full-Text, Cochrane Library, PsycINFO, and PubMed. Search terms used included: postpartum depression, postnatal depression, screening, risk factors, primary care, barriers, treatments, and quality improvement. Reviewing the reference lists of articles found led to additional relevant articles. The following literature review defines PPD and the postpartum timeframe; explains how PPD differs from the baby blues; identifies risk factors and consequences of PPD; and summarizes treatment options. The literature review also encompasses PPD screening tools, barriers to screening and methods for improving screening rates. Searching for postpartum depression and Veterans yielded no relevant results, indicating a need for future studies.

Postpartum Depression

Postpartum depression, as described in the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5; APA, 2013), is a major depressive episode with a peripartum onset. The diagnostic criteria for a major depressive episode is five or more of the following symptoms present during the same two-week period and represent a change from previous functioning: (a) depressed mood most of the day, nearly every day, as indicated by either subjective report or observation made by others; (b) markedly diminished interest or

pleasure in all, or almost all, activities most of the day, nearly every day; (c) significant weight loss when not dieting or weight gain, or decrease or increase in appetite nearly every day; (d) insomnia or hypersomnia nearly every day; (e) psychomotor agitation or retardation nearly every day; (f) fatigue or loss of energy nearly every day; (g) feelings of worthlessness or excessive or inappropriate guilt nearly every day; (h) diminished ability to think or concentrate, or indecisiveness, nearly every day; or (i) recurrent thoughts of death, recurrent suicidal ideation without specific plan, or a suicide attempt, or a specific plan for committing suicide. At least one of the symptoms is either depressed mood or loss of interest or pleasure.

Postpartum Depression Timeframe

The peripartum timeframe is during pregnancy or within four weeks after delivery (APA, 2013). The timeframe for onset extends to six weeks after childbirth according to the International Classification of Diseases Tenth Edition (ICD-10; WHO, 2016). Another source defines PPD as "any major or subsyndromal depression present any time during the first year after delivery" (O'Hara & McCabe, 2013, p. 380). This same source states PPD "may persist over a long period of time, and it is likely to be associated with recurrent depressive episodes" (O'Hara & McCabe, 2013, pp. 388). ACOG recommends screening for PPD during the first year postpartum, whereas USPSTF does not identify a specific timeframe (ACOG, 2015; Siu & USPSTF, 2016).

Stowe, Hostetter, and Newport (2005) studied 209 women in Atlanta, Georgia, referred for PPD treatment. They found different timeframes for the onset of symptoms with 11.5% during pregnancy, 66.5% during the early postpartum period (delivery to six weeks) and 22% during the late postpartum period (six weeks to one year). A German study (Martini et al., 2015) discovered of 306 women, 41 developed peripartum depression with 27 having the first

incidence during the postpartum period. Of the women with PPD, 37.7% developed symptoms during the first two months following delivery; 11.1% during months two through four; and 51.9% from months four through sixteen.

Baby Blues

Postpartum depression differs from the phenomenon of "baby blues" or "postpartum blues." Baby blues refers to the transient symptoms of brief crying spells, irritability, nervousness, poor sleep, and emotional reactivity that occur during the first ten days postpartum (Sit & Wisner, 2009). Sit and Wisner (2009) cite that 75% of women are affected by the baby blues. A qualitative study of 68 women in the United Kingdom found 69% to report feelings of depression, spontaneous bouts of crying, or both during the first week postpartum (McIntosh, 1986).

Buttner, Brock, and O'Hara (2015) followed 216 women in Iowa for the first 14 days postpartum and assessed their mood daily. They found on average, negative affect increased daily from delivery, peaked at day five and returned to baseline at day ten. Positive affect declined daily from delivery, stabilizing on day ten. Women who later developed PPD followed the same trajectory of negative and positive affect, but they reported a higher starting level of negative affect and a lower starting level of positive affect.

Risk Factors

Risk factors for PPD are numerous. Although not exhaustive, Table 2 summarizes several studies identifying many of these risks. The most common risk factor identified was a history of depression or anxiety (Katon, Russo, & Gavin, 2014; Martini et al., 2015; Milgrom et al., 2008; Nguyen et al., 2013). A history of other mental health disorders such as post-traumatic stress disorder (PTSD) or bipolar disorder also increased the risk of PPD (Beck, Gable, Sakala,

& Declercq, 2011; Nguyen et al., 2013). A lack of social support was reported as a risk factor, while good social support was noted to be protective (Martini et al., 2015; Milgrom et al., 2008; Schachman & Lindsey, 2013). Maternal age was often mentioned with multiple studies citing younger mothers at higher risk of PPD (Bottino, Nadanovsky, Moraes, Reichenheim, & Lobato, 2012; Katon, Russo, & Gavin, 2014; Nguyen et al., 2013). Unique studies examined additional risk factors of experiencing a natural disaster, infertility, geographic location, quality of sleep, history of physical or sexual abuse, history of pregnancy loss, diabetes, and deployment of spouse (Akyuz, Seven, Devran, & Demiralp, 2010; Dorheim, Bondevik, Eberhard-Gran, & Bjorvatn, 2009; Gaillard, Le Strat, Mandelbrot, Keita, & Dubertret, 2014; Giannandrea, Cerulli, Anson, & Chaudron, 2013; Harville, Xiong, Pridjian, Elkind-Hirsch, & Buekens, 2009; Jewell, Dunn, Bondy, & Leiferman, 2010; Kozhimannil, Pereira, & Harlow, 2009; Martini et al., 2015; Smith, Munroe, Foglia, Nielsen, & Deering, 2010; Spooner, Rastle, & Elmore, 2012).

Table 2

Risk Factors for Postpartum Depression

Source	Risk factors	Sample	Study method
Beck, Gable, Sakala, & Declercq, 2011	PTSD, low health promoting behaviors, unplanned pregnancy, lack of private health insurance, not breastfeeding, unemployed, multiparity	1573 women nationally	Prospective longitudinal
Katon, Russo, & Gavin, 2014	Younger age, unemployment, antenatal depressive symptoms, taking antidepressants, psychosocial stressors, prepregnancy chronic physical illnesses, smoking	1,423 women in Washington state	Prospective cohort
Martini et al., 2015	Anxiety or depression before pregnancy, history of sexual or physical trauma, low maternal education, operative mode of delivery, low social support, low self-esteem	306 women in Germany	Prospective longitudinal
Milgrom et al., 2008	Antenatal depression, antenatal anxiety, low social support levels, history of depression	12,361 women in Australia	Prospective cohort
Nguyen et al., 2013	Deployment with combat exposure after childbirth, younger age, prior mental health disorder, positive PTSD screen, Army service	1,660 U. S. Active Duty Servicewomen	Prospective longitudinal
Schachman & Lindsey, 2013	Greater family changes and strains, lower self-reliance, lower social support	71 military wives in southeast U.S.	Comparative descriptive

Consequences of Postpartum Depression

The literature agrees that PPD has adverse effects. The degree of severity of these consequences varies. Poor infant and mother bonding is often cited, but the physical well-being and the emotional development of the infant are also affected (Field, 2010; Kingston, Tough, & Whitfield, 2012; Ohoka et al., 2014). There are long-term effects on the mother as well. A woman who suffers from PPD has an increased risk for developing other mental disorders in the future and a greater risk of suicidality (Chu, Emasealu, Hu, O'Donnell, & Clark, 2015; Do, Hu, Otto, & Rohrbeck, 2013). The severity of the consequences supports the need for screening, diagnosing, and treating PPD.

Treatment of Postpartum Depression

Treatment for PPD includes general counseling, individual or group psychotherapy, cognitive-behavioral therapy, and pharmacotherapy. Excluding pharmacotherapy, therapy for PPD is not always delivered by a mental health professional. Research has shown effective interventions administered by visiting home nurses, child health nurses, and case managers with bachelor's degree training (O'Hara & McCabe, 2013). The most common treatment for PPD is antidepressant medication (O'Hara & McCabe, 2013). When choosing an antidepressant, the PCP must know if the woman is breastfeeding. O'Hara and McCabe report sertraline, paroxetine, and nortriptyline as having the best safety profile during lactation (2013). If not breastfeeding, then pharmacotherapy is identical to major depression treatment with selective serotonin reuptake inhibitors often chosen first due to their favorable adverse effect profiles and relative safety in overdose compared with tricyclic antidepressants (Hirst & Moutier, 2010).

Molyneaux, Howard, McGeown, Karia, and Trevillion (2014) conducted a Cochrane systematic review of randomized control trials regarding antidepressant treatment for postnatal

depression. They included six trials in their review, with a total of 596 participants. They concluded the evidence base was limited and larger-scale trials were needed. They estimated that selective serotonin reuptake inhibitors were significantly more effective than placebo. However, evidence was insufficient to recommend antidepressant use over psychological or psychosocial treatments.

Sockol, Epperson, and Barber (2011) conducted a meta-analysis of treatments for perinatal depression. They looked at studies involving psychological and pharmacological interventions, and the studies had to use a prospective pretreatment-posttreatment, quasi-randomized trial or randomized controlled trial design. All interventions included saw a reduction in symptoms. They found interpersonal psychotherapy to be superior to cognitive behavioral therapy. Individual psychotherapy had better results than group psychotherapy. Additional studies are needed to assess the effectiveness of psychotherapy compared to pharmacotherapy. They also identified the need for more studies assessing long-term outcomes of treatment.

Screening Tools

There are a variety of validated screening tools for PPD. ACOG (2015) does not recommend a specific screening tool. They encourage the use of a standardized, validated tool such as the EPDS, Postpartum Depression Screening Scale, Patient Health Questionnaire 9, Beck Depression Inventory, Beck Depression Inventory-II, Center for Epidemiologic Studies Depression Scale, or Zung Self-rating Depression Scale. Haran et al. (2014) compared guidelines regarding postpartum care from around the world. They found two Australian guidelines, Beyondblue and Royal Australian College of General Practitioners, recommending the use of the EPDS for PPD and anxiety screening due to its well documented high sensitivity

and specificity. In contrast, Haran et al. (2014) also looked at the National Institute for Health and Clinical Excellence guidelines which did not recommend using the EPDS as a screening tool for PPD. Instead, they recommended relying on professional judgment and clinical interview, where the EPDS could serve as part of the assessment. The USPSTF, the American Academy of Pediatrics, and the American Academy of Family Physicians all report the EPDS as a commonly used and well-validated depression screening tool (Siu & USPSTF, 2016; Earls, 2010; Hirst & Moutier, 2010). The World Health Organization (WHO) does not endorse a specific screening tool. They state women should be asked about their emotional well-being at each postnatal contact and encouraged to tell their health care provider about any changes in mood, emotional state, and behavior that are outside their normal patterns (WHO, 2013). VA and DOD recommend using the EPDS or the PHQ-2 to screen for PPD (VA/DOD, 2009). Both of these tools have extensive research supporting their use. See Appendix A and B for an example of each tool.

Edinburgh Postnatal Depression Scale (EPDS). The EPDS is a ten-item self-report scale for PPD screening which assesses depressive symptoms experienced over the prior seven days including anhedonia, depressed mood, and suicidality (Cox, Holden, & Sagavosky, 1987; Cutler et al., 2007). It has been in use since the 1980s and validated in multiple languages. It was developed as a self-report scale and does not require the health care worker to have any specialist knowledge of psychiatry (Cox et al., 1987). It was initially validated against Goldberg's Standardised Psychiatric Interview using the Research Diagnostic Criteria of Spitzer for depressive illness. The EPDS is scored out of 30 possible points. The initial validation study included 84 mothers and used a 12/13 threshold score with a score of 13 or more indicating a positive depression screen. Results demonstrated 86% sensitivity and 78% specificity with 0.88

split-half reliability with standardized α-coefficient 0.87 (Cox et al., 1987). O'Connor, Rossom, Henninger, Groom, and Burda (2016) systematically reviewed 23 studies of the EPDS using the same cutoff score of 13 on the English-language EPDS. They found sensitivity ranging 67% to 100% and specificity ranging 87% to 99%. Gjerdingen and Yawn (2007) recommend using the EPDS as it was the most extensively studied PPD screen yielded by their literature review of OVID/MEDLINE and the Cochrane database. Additionally, it is validated for use during pregnancy with sensitivity and specificity ranging between 64-100% and 73-100%, respectively (Kozinszky & Dudas, 2015).

Patient Health Questionnaire-2 (PHQ-2). The PHQ-2 is another depression screening tool that was designed to be self-administered. It consists of the first two questions of the Patient Health Questionnaire-9 that inquire about the frequency of depressed mood and anhedonia over the past two weeks (Kroenke, Spitzer, & Williams, 2003). Although originally developed to screen for major depressive disorder, Cutler et al. (2007) found the PHQ-2 to have a sensitivity of 43.5% and specificity of 97.2% for PPD using the EDPS as a reference scale. Gjerdingen, Crow, McGovern, Miner, and Center (2009) used the Structured Clinical Interview for DSM-IV as a reference point and found the PHQ-2 to have a sensitivity of 75% and specificity of 88% for PPD. Bennett et al. (2008) studied the validity of the PHQ-2 antepartum and postpartum. The PHQ-2 had a sensitivity of 93%, 82%, and 80% and a specificity of 75%, 80%, and 86% at 15 weeks gestation, 30 weeks gestation and postpartum, respectively. Criterion validity and construct validity were found favorable in both primary care clinics and obstetrics-gynecology clinics (Kroenke et al., 2003). Internal consistency reliability for the PHQ-2 was 0.88 in a large national survey of postpartum women (Beck et al., 2011).

Barriers to Screening

Byatt et al. (2012) conducted focus group interviews with a variety of perinatal health care professionals to identify barriers and facilitators to addressing perinatal depression. They identified patient, provider, and system-level barriers. Patient-level included: "complex psychosocial factors and stigma result in limited initiative to seek treatment" (p. 438); and "women are concerned about the risk of antidepressant use during the perinatal time period" (p. 439). Provider-level included: "limited resources, motivation and confidence" (p. 440); and "limited mental health training and knowledge" (p. 440). Finally, system-level included: "limited access to mental health care" (p. 441); and "lack of communication and continuity between perinatal and mental health professionals" (p. 441).

Gjerdingen and Yawn (2007) searched available literature in the OVID/MEDLINE and the Cochrane databases and found patient-centered, physician-centered, and systems barriers to be the three general types of barriers to effective PPD diagnosis and treatment.

> Patient-centered variables include cost and lack of insurance coverage, time constraints, social stigma, nonadherence to depression treatment, lack of follow-through with mental health referrals, and lack of access to care for various reasons. Physician-centered variables include lack of time, managed care policies, competing demands, insufficient training/knowledge, insurance or payment problems, and fear of legal repercussions. Systems based variables also play a role and include infrequent follow-up visits for mothers, lack of objective, proactive monitoring of recovery, and separation of primary care and mental health services.
>
> In addition, mothers of infants may experience barriers that are unique to the postpartum or early child-rearing period, such as need for childcare during mental health

> visits, concern about medication effects on nursing infants, and fear of judgement and referral to child protection. (p. 285)

Bilszta, Ericksen, Buist, and Milgrom (2010) conducted a qualitative focus group study in Australia with health professionals involved in the care and treatment of women with postnatal emotional distress. They found the EPDS to be a simple and comfortable tool to use in diagnosing depression. However, women who were mildly depressed were harder to recognize. A large area of need they discovered was a need for further information and support to develop interdisciplinary and interagency collaborations among service providers for screening and treatment of perinatal emotional distress.

Delatte, Cao, Meltzer-Brody, and Menard (2009) surveyed provider attitudes and practice following the implementation of a universal screening protocol for PPD at the six-week postpartum visit. Providers were to use the EPDS to screen women. If women scored less than 10, no further action was needed; a score of 10-12 prompted the provider to counsel the patient and provide an educational pamphlet; a score of 13 or more prompted the provider to assess the need for treatment with medication, counseling or immediate psychiatric referral. Their chart audit included 458 women seen over a four and a half month period. Only 39% of the charts had an EPDS score documented, and only 35% had documentation that women were counseled on their score or depression. There was a significant difference in compliance with screening dependent on the type of provider with nurse practitioners documenting universal screening 94%, certified nurse midwives 67%, attendings 42% and residents 17% of the time. They also sent a survey to providers with a 77% response rate. Diagnosing PPD was not a significant barrier as 94% reported feeling confident with diagnosing. However, only 76% were confident

with initiating treatment with medications, and only 70% were confident in providing counseling and education about PPD (p. e64).

Improving Postpartum Depression Screening

The Translating Research into Practice for Postpartum Depression (TRIPPD) study was a large U. S. based effectiveness study of screening and follow-up care for PPD (Yawn et al., 2012). It compared usual care with staff education on a multistep PPD screening and diagnosis process using the EPDS and PHQ-9. The intervention sites received tools to facilitate diagnosis, follow-up, and management of PPD. The researchers enrolled 2,343 women at 28 practice sites. Diagnosis, therapy initiation, and referrals for psychiatric care for PPD were significantly more likely among women in the intervention group. This study used the EPDS scale to screen for depression and if positive, continued with the PHQ-9 and physician evaluation. The main therapy used was an antidepressant medication with follow-up phone calls by nursing staff and follow-up office visits. Although the data did not reach statistical significance, the intervention group had higher rates of improvement from depression than the usual care group suggesting clinical significance.

Researchers have examined the effectiveness of PPD screening through means of telephone interviews. Hanusa, Scholle, Haskett, Spadaro, and Wisner (2008) found the EPDS to be an efficient means of screening postpartum women. They offered home visits to follow up on positive depression screening. Seventy-three percent of women with positive screenings agreed to home visits, and 45% of these women were found to meet the criteria for a major depressive disorder based on Diagnostic Interview Schedule. Another study used an automated voice response system to administer the EPDS. They found PPD symptoms in 17% of women who

called in; however, those who did not call in, could not be determined not to have PPD (Kim et al., 2012).

The Partnership for Women's Health (PWH) model was designed for and implemented in obstetric and pediatric offices in San Diego, California, to improve screening and treatment of PPD (Baker-Ericzén, Mueggenborg, Hartigan, Howard, & Wilke, 2008). The model addresses physician barriers through a collaborative approach. Mothers are screened for PPD at routine postpartum visits, and proactive follow-up is done by a mental health advisor for linkage to treatment. Providers and staff were trained on the PWH model and how to assess for PPD using the EPDS. Protocols were in place to address suicidality if reported on the EDPS or during the visit. For positive screenings, EPDS score greater than or equal to 10, providers were trained to reassure the mothers and inform them a mental health advisor would contact them soon to facilitate a link to treatment. All mothers received an educational handout on maternal depression, and those with positive depression screens also received a list of local resources. The mental health advisor contacted women within 48 hours and assisted in linking the women to treatment. During a one-year pilot trial of the PWH program, 718 women were screened for PPD, and 116 women had positive screens. The mental health advisor was able to make contact with 109 of those women. Mothers were surveyed for satisfaction with the program. Ninety-eight percent of mothers (n=83) reported being satisfied with the program assistance. Providers were surveyed at baseline and the end of the one-year pilot. Providers had increased frequency of screening and increased awareness of community resources for PPD.

The Stepped Care Treatment of Postpartum Depression randomized controlled trial used a stepped care treatment of PPD model (Gjerdingen, Katon, & Rich, 2008). In this trial, all women were routinely screened for PPD with their PCP or at their infant's well-child visits. The

screening was done with standardized tools such as the PHQ-9 or EPDS. Positive screens were followed up with a diagnostic survey or interview to confirm the diagnosis of depression. Patient education was initiated at the time of screening and diagnosis. The initial treatment plan was developed between the mother and her PCP and may include psychological and pharmacological interventions. Persistent or complicated illness was referred to a mental health specialist who was available in the primary care setting. Higher levels of specialty care were initiated in severe disease or presence of suicidality. Follow-up care was performed during regular office visits or through telephone calls which may be made by case managers. This clinical trial was still in progress at the time of publishing, but preliminary results supported its use in PPD (Gjerdingen et al., 2008).

Loudon, Nentin, and Silverman (2015) implemented a clinical decision support "hard stop" (p. 1) to the electronic health record at Mount Sinai Hospital OB/GYN Ambulatory Practice in New York. All providers were required to enter a standardized PPD mood assessment score into the patient's chart before closing it. They used the EPDS as the standardized tool. Of the 2102 women seen for postpartum visits, 2092 women completed the EPDS. The ten who did not complete the screening had reasons identified as (a) language barrier, (b) refusal to complete or (b) no documented reason. Although this study supported the use of a hard stop in the electronic medical record to identify PPD, it did not address follow-up treatment.

Literature Review Summary

Postpartum depression is a common complication during the postpartum period and can occur for a full year after delivery. Known risk factors include a history of depression or anxiety, lack of social support, and post-traumatic stress disorder. If left untreated, PPD has

adverse effects on both the mother and child. It can be effectively identified in the primary care setting using standardized tools. Initial treatment is most effective when initiated in the primary care setting and can be psychological, pharmacological or both. Educating and providing health care providers with standardized tools and appropriate treatment options for positive PPD screens increases the quality of care.

Implications for Nursing Practice

Myers et al. (2013) reported on the efficacy and safety of screening for PPD. They state "the potential effectiveness of screening for postpartum depression appears to be related to the availability of systems to ensure adequate followup of women with positive results" (p. ix). As PCPs, advanced practice nurses are capable of screening for PPD and providing first line treatment (Hirst & Moutier, 2010). Both the EPDS and the PHQ-2 are self-administered screening tools and do not require specialized training of the health care worker. Therefore, the advanced practice nurse can delegate the PPD screening to other members of the patient aligned care team such as the registered nurse or licensed practical nurse. As the PCP diagnosing the pregnancy and referring the woman to an obstetric provider, the advanced practice nurse can provide anticipatory guidance to the patient and educate her on the available resources within VA for PPD, along with discussing preemptive treatment plans for women with a known history of PPD.

Methods

Quality Improvement

Massoud et al. (2001) stated the purpose of quality improvement (QI) is to identify "where gaps exist between services actually provided and expectations for services. It then lessens these gaps not only to meet customer needs and expectations, but to exceed them and

attain unprecedented levels of performance" (p. 3). It does not necessarily require adding new resources, rather, QI involves making changes in an organization to make the best use of resources already available.

There are a variety of QI approaches and methods. These approaches include individual problem solving, rapid team problem solving, systematic team problem solving, and process improvement. There are four basic steps to all methods of QI: (a) identify, (b) analyze, (c) develop, and (d) test and implement. Identify is determining the process to improve. Analyze is understanding the multiple facets of the problem. Develop is hypothesizing about what changes will improve the problem. The fourth step is testing the hypothesized solution on a small scale to see if it yields improvement. Then, based on the results, the improvement is abandoned, modified, or implemented on a large scale. This last step can be a continuous process of plan, do, study and act.

Project Design

Methodology. The first step in QI is to identify what needs improvement. New screening guidelines for PPD and a growing female Veteran population presented an area where improvement may be necessary. The second step in this QI project was to analyze current PPD screening practice at the AVAHS. A medical record audit was executed and is described in detail in the data collection section. The third step in QI is to develop a hypothesis based on the multiple facets of the problem identified through the analysis phase and current research of what changes will lead to process improvement. The fourth step is to test the intervention. The goal of this project was to identify whether a problem exists with conducting universal PPD screening and referral of female Veterans in Alaska. If the findings supported a need for intervention, then

a viable intervention would be presented to the AVAHS for consideration and implementation testing.

Population. Women Veterans eligible for VA health benefits are women who served in the active military service and were discharged or released under conditions other than dishonorable (VA, 2015). In the fiscal year 2014, 10,192 women Veterans were living in the State of Alaska. Of those women, 4,402 were between ages 18-44 years (VA, National Center for Veterans Analysis and Statistics, 2014). Health care professionals working within the AVAHS primary care clinic include physicians, nurse practitioners, registered nurses, licensed practical nurses, and social workers.

Data Collection

Sample. The entire cohort of women Veterans enrolled in the AVAHS who had a maternity consult placed for the purpose of pregnancy during the FY 2014 was included. The FY 2014 ran from October 1, 2013, through September 30, 2014. This chosen timeframe allowed for at least one year to pass from the date of delivery to the date of data collection. A one-year postpartum timeframe is used by most researchers and ACOG, as described in the literature review.

The AVAHS Women Veterans Program Manager provided the list of patient names. Through a previous conversation with her, this was estimated to be 25 to 30 women. The final list included 32 women. Exclusion criteria were: (a) women under the age of 18 at the time of delivery; (b) maternity consults for any reason other than pregnancy; (c) women leaving the state before delivery; and (d) fetal demise. In reviewing the literature, PPD researchers typically excluded women who had an active diagnosis of depression at the time of pregnancy. These

women were not excluded from this project because analysis of their postpartum care could have helped guide interventions for routine PPD screening and care.

Medical record audit. Retrospective medical record audits were conducted by myself as the sole investigator. As an employee of the AVAHS, I had access to, and training in, the electronic health record, Computerized Patient Record System (CPRS). Audits were conducted during non-paid hours only over a one week period.

A standardized approach was used due to differences in charting with some providers using templates and others free-typing or dictating their clinic notes. First, I located the obstetric consult, then the hospital notification of the delivery date. Next, I scanned outside records for postpartum notes after the delivery date. I looked at the problem list for a diagnosis of depression or anxiety, and lastly, I used the word search option in CPRS for "depression" and "anxiety" to locate relevant documentation.

Data was recorded on paper audit forms. Information was collected on: (a) type of obstetric provider, (b) presence of active depression, (c) history of depression or anxiety, (d) occurrence of PPD screening, (e) where screening occurred, (f) who performed the screening, (g) timing of screening, (h) what screening tool was used, (i) screening results, (j) was treatment and where, (k) when was the first contact between the woman and the AVAHS primary care clinic after delivery, (l) who initiated contact, and (m) when was her first primary care appointment after delivery. Socioeconomic risk factors such as income, education level, and marital status, were not easily found in CPRS and therefore not recorded. The questions asked in the medical record audit were developed from risk factors identified in the literature review, the updated screening guidelines, and VA/DOD policy. See Appendix C for example of audit form. After starting the chart audits, I also decided to record if the woman's PCP was located at the VA

clinic or in the community. As with community obstetric providers possibly having different screening policies than the VA, community PCPs may also be different.

Data Analysis

After data were collected on paper audit forms, I transcribed the data into SPSS, a computer-based statistical software program. The majority of data collected were nominal level and was first analyzed with descriptive statistics to summarize the frequency of the answers to each question on the audit form. The proposal plan included using the nonparametric chi-square test to look for differences in PPD screening rates between different sample characteristics: (a) DOD versus community obstetric provider, (b) history of depression or anxiety versus no history of depression or anxiety, (c) active depression during pregnancy versus no active depression, and (d) VA versus community primary care provider. Secondary to a violation of expected frequencies test assumption and incomplete data, chi-square analysis was not completed.

Theoretically, if no improvement was needed in current practice, all medical records audited would include PPD screening. In the actual world of health care, 100% compliance is difficult to achieve. I chose a cutoff of 95% compliance to indicate no need for improvement. If PPD screening was a key quality measure for The Joint Commission (TJC), then 95% compliance would earn a “top performer” designation (TJC, 2016).

Data Dissemination

Zephyrin et al. (2014) reported VA health care providers need enhanced knowledge of psychiatric disorders and how their treatments affect women who are pregnant, postpartum, or may become pregnant. The results of this project will be shared with the providers and nursing staff in the AVAHS primary care clinic. In fulfillment of the Master’s degree requirements at

the University of Alaska Anchorage, the results will also be presented in poster format at a professional conference.

Ethical Considerations

Confidentiality. Data was de-identified by keeping patient identifiers on a separate sheet of paper from the audit forms; allowing me to keep track of which medical records I had already reviewed and prevent duplication. The names of the health care providers were not recorded to maintain privacy and prevent any possible retaliation. All electronic information was stored on a password-protected thumb drive. The SPSS program was accessed on my personal computer which was password protected. The thumb drive, paper audit forms, and list of patient names will be secured in a locked safe in my home for the duration of the project and an additional three years. At that future time, they will be destroyed by fire.

Institutional Review Board. Facility approval was received from the AVAHS Medical Center Director to conduct this project at the AVAHS after the VA Portland Health Care System Institutional Review Board (IRB) had determined it was not research. The IRB Request for Determination of Human Subjects Research form was also completed and submitted to the University of Alaska IRB. Both IRBs determined this project did not meet the qualifications for human subject research. See Appendices D and E for the completed forms.

Conflicts of interest. As an employee of the AVAHS, I may have been personally involved in the care of a Veteran whose medical record I audited. To avoid bias, no employee names were recorded. To ensure the integrity of the data, I kept foremost the goal of providing excellent care to our female Veterans.

Results

There were 32 obstetric consults ordered at AVAHS during the fiscal year 2014. All were for women over age 18 years, and all were for the purpose of pregnancy. Three were excluded due to moving out of state during the pregnancy, and four were excluded for fetal demise. An additional four charts were excluded because although an obstetric consult was placed, the women elected to use other insurance. For these women, VA was not notified of the birth of the infant, and therefore, I was unable to determine if the pregnancy was carried to term. The remaining 21 records were used for analysis.

The sample was divided nearly in half by type of obstetric provider and PCP. More than three-fourths of the women had a history of depression or anxiety which included women with current depression. Table 3 lists the sample characteristics. A total of 17 women, or 81%, were screened for PPD. The remaining four women had no documentation of PPD screening. These women were also assigned to a community PCP. Through this audit, it could not be determined with certainty if the screening had not been done versus the documentation of screening had not been submitted to the VA. The data was incomplete due to the possibility of missing records.

Table 3

Sample Characteristics (N=21)

Variable	*n* (%)	Variable	*n* (%)
Obstetric provider		Primary care provider[b]	
DOD	9 (42.9)	VA	12 (57.1)
Community	12 (57.1)	Community	9 (42.9)
Active depression[a]		History of depression or anxiety	
Yes	8 (38.1)	Yes	16 (76.2)
No	13 (61.9)	No	5 (23.8)

Note. DOD = Department of Defense; VA = Department of Veterans Affairs
[a]Current diagnosis of depression during pregnancy.
[b]Primary care provider assigned by VA.

The 17 records with PPD screening documented were used for further analysis of how the screening was completed and are summarized in Table 4. Five women screened positive for PPD, and all were treated or referred for treatment. Of women only assigned to a VA PCP, there was 100% compliance with PPD screening, *n=12*. Of the nine women outsourced to a community PCP, five had documented PPD screening. The data was incomplete for the remaining four women with a community PCP. The most frequently documented screening tool was the PHQ-2, found in 11 records. Other tools used were the EPDS, PHQ-9, and clinical interview.

Table 4

Characteristics of Completed Postpartum Depression Screenings (n=17)

Variable	***n* (%)**	**Variable**	***n* (%)**
Where screening occurred		Screening tool used	
VA	11 (64.7)	EPDS	3 (17.6)
Obstetric provider	5 (29.4)	PHQ-2	11 (64.7)
Other	1 (5.9)	Other	3 (17.6)
Who performed screening		Result of screening	
Nurse	7 (41.2)	Positive	5 (29.4)
APRN	1 (5.9)	Negative	12 (70.6)
Physician	2 (11.8)	Who initiated treatment	*n = 5*
Social worker	2 (11.8)	Obstetric provider	1 (20.0)
Unable to determine	5 (29.4)	Primary care provider	2 (40.0)
When was screening performed		Other	2 (40.0)
0 to 2 weeks	2 (11.8)		
2+ to 6 weeks	5 (29.4)		
6+ to 12 weeks	2 (11.8)		
12+ to 52 weeks	8 (47.1)		

Note. VA = Department of Veterans Affairs; APRN = Advanced practice registered nurse; EPDS = Edinburgh Postnatal Depression Scale; PHQ-2 = Patient Health Questionnaire two question form

The majority of women Veterans had contact with the VA primary care clinic during the first year postpartum. The Veteran initiated this contact more often than the VA clinic staff. Table 5 further describes the contact after delivery between the woman Veteran and the VA clinic.

Table 5

Characteristics of How Women Reengaged with Primary Care after Childbirth (N=21)

Variable	***n* (%)**
When was first contact with VA clinic	
0 to 6 weeks	12 (57.1)
6+ to 12 weeks	5 (23.8)
12+ to 52 weeks	2 (9.5)
None	2 (9.5)
Who initiated contact between Veteran and VA clinic	
Veteran	13 (61.9)
VA staff	3 (14.3)
Unable to determine	3 (14.3)
No contact initiated	2 (9.5)
When was first visit with VA authorized PCP	
0 to 6 weeks	4 (19.0)
6+ to 12 weeks	4 (19.0)
12+ to 52 weeks	10 (47.6)
None	3 (14.3)

Note. VA = Department of Veterans Affairs; PCP = primary care provider

Discussion

There was 29.4% prevalence of positive PPD screens found in this audit which is congruent with previously reported estimates of PPD prevalence. This reinforces that PPD is a common condition and warrants VA attention. It was pleasing to find PPD screening occurred at least once in the first year after childbirth for women assigned to a VA PCP. Likely contributing to policy and guideline compliance was the use of a clinical reminder to screen for depression

annually, VA policy for women to be seen within three months of delivery, and continuity of care arranged by the same health care provider. The literature review identified using clinical reminders and continuity of care as beneficial to improving rates of PPD screening, and the results support these continued practices.

The medical records audited were for pregnancies before the updated ACOG and USPSTF guidelines on universal PPD screening were released. The VA/DOD policy on universal screening was published before the timeframe audited. A greater percentage of women with a DOD obstetric provider had documentation of screening compared to a community obstetric provider, 88.9%, and 75.0%, respectively. Missing records impeded statistical comparison; however, differing guidelines might explain some of the difference in screening rates. An area of future quality improvement might look at the obstetric consults placed during the FY 2017, after the publication of the updated national guidelines.

All the women with missing documentation of PPD screening were outsourced to a community provider for primary care. From the information available in the VA electronic medical record, it could not be determined if the women were not screened versus incomplete documentation in the VA medical record. Three of the four women with missing PPD screening had documentation of at least one postpartum visit with their community PCP which could have been a missed opportunity for screening. However, there was no way of knowing from this audit if they only had the one visit. The four women who used other insurance also had no documentation of PPD screening in their VA medical record. The missing records were an example of the lack of communication and continuity of care between obstetric providers and PCPs. Previous research identified these as known system-level barriers. Addressing these system barriers are grounds for future projects on this topic.

Intervention Development

The literature review identified several strategies to improve PPD screening rates: (a) telephone calls to new mothers, (b) educating new mothers, (c) educating health care providers (d) providing health care providers with algorithms for PPD screening and care, (e) having a dedicated mental health provider follow up with positive screens, and (f) using hard stops in the electronic health record. I reviewed these strategies and the audit results with the AVAHS Women Veterans Program Manager. We decided an informational brochure specifically on PPD would be beneficial for women Veterans and their health care providers. The brochures would address both patient and provider-level barriers to screening. By providing education on postpartum depression and available local and online resources, the brochures help break down patient-level barriers such social stigma, lack of access to care, and time constraints. Lack of knowledge and limited resources were identified as provider-level barriers in the literature review. The brochure will serve as a tool for clinicians to be more aware of PPD, how to screen for it, and treatment resources for their women Veteran patients in Alaska. See Appendices F and G for examples of the patient and provider brochures, respectively.

The brochures are in the process of being approved for use at the AVAHS. Once approved and distributed, the Women Veterans Program Manager is planning to share the brochures as examples of best practice with the Northwest Veterans Integrated Service Network (VISN 20). VISN 20 includes VA facilities in Alaska, Idaho, Oregon, and Washington.

Limitations

Small sample size was a major limiting factor in the statistical analysis of this medical record audit. Future audits should consider expanding the timeframe reviewed to increase the

sample size. However, medical practice is fluid, and as new evidence-based recommendations develop, the audit may reveal differences due to providers updating their practice.

Missing medical records were a limiting factor. The incomplete data impeded statistical analysis. The four women missing PPD screening, also, did not have postpartum obstetric provider notes in the VA medical record. They may have been screened; however, VA was not informed. Of course, the records would also be missing if the women never returned for postpartum care. Either way, the VA clinic was not notified.

Conclusion

Postpartum depression is a common condition of the first year after childbirth having adverse effects on the mother, child, and family. National guidelines have been updated recently recommending universal screening of all women for earlier identification and treatment. A review of current PPD screening practices in the AVAHS revealed current policies are helping to ensure all women established in the VA primary care clinic receive screening. The gap in PPD screening between VA and community providers was evident, along, with the women not established at the AVAHS primary care clinic. Through this project, brochures were created to help bridge this gap and engage women Veterans in available resources.

References

Akyuz, A., Seven, M., Devran, A., & Demiralp, M. (2010). Infertility history: Is it a risk factor for postpartum depression in Turkish women. *Journal of Perinatal and Neonatal Nursing, 24*(2), 137-145. doi: 10.1097/JPN.0b013e3181d893e8

Alcorn, K. L., O'Donovan, A., Patrick, J. C., Creedy, D., & Devilly, G. J. (2010). A prospective longitudinal study of the prevalence of post-traumatic stress disorder resulting from childbirth events. *Psychological Medicine, 40*, 1849-1859. doi:10.1017/S0033291709992224

American College of Obstetricians and Gynecologists, Committee on Obstetric Practice. (2010). Screening for depression during and after pregnancy (Committee Opinion No. 453). *Obstetrics and Gynecology, 115*(2 Pt 1), 394-395. doi:10.1097/AOG.0b013e3181d035aa

American College of Obstetricians and Gynecologists, Committee on Obstetric Practice. (2015). Screening for perinatal depression (Committee Opinion No. 630). *Obstetrics and Gynecology, 125*(5), 1268-1271. doi:10.1097/01.AOG.0000465192.34779.dc

American Congress of Obstetricians and Gynecologists. (2016). About us. Retrieved from http://www.acog.org/About-ACOG/About-Us

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Retrieved from http://dsm.psychiatryonline.org/

Baker-Ericzén, M. J., Mueggenborg, M. G., Hartigan, P., Howard, N., & Wilke, T. (2008). Partnership for women's health: A new-age collaborative program for addressing maternal depression in the postpartum period. *Families, Systems, and Health, 26*(1), 30-43. doi:10.1037/1091-7527.26.1.30

Balbierz, A., Bodnar-Deren, S., Wang, J. J., Howell, E. A. (2015). Maternal depressive symptoms and parenting practices 3-months postpartum. *Maternal and Child Health Journal, 19*, 1212-1219. doi:10.1007/s10995-014-1625-6

Beck, C., Gable, R. K., Sakala, C., & Declercq, E. R. (2011). Postpartum depressive symptomatology: Results from a two-stage US national survey. *Journal of Midwifery and Women's Health, 56*, 427-435. doi:10.1111/j.1542-2011.2011.00090.x

Bennett, I. M., Coco, A., Coyne, J. C., Mitchell, A. J., Nicholson, J., Johnson, E., … Ratcliffe, S. (2008). Efficiency of a two-item pre-screen to reduce the burden of depression screening in pregnancy and postpartum: An IMPLICIT network study. *Journal of the American Board of Family Medicine, 21*, 317-325. doi:10.3122/jabfm.2008.04.080048

Bergman, A. A., Frankel, R. M., Hamilton, A. B., & Yano, E. M. (2015). Challenges with delivering gender-specific and comprehensive primary care to women Veterans. *Women's Health Issues, 25*(1), 28-34. doi:10.1016/j.whi.2014.10.004

Bilszta, J., Ericksen, J., Buist, A., & Milgrom, J. (2010). A qualitative study of health professionals involved in the care and treatment of women with postnatal emotional distress. *International Journal of Mental Health Promotion, 12*(3), 5-13. doi:10.1080/14623730.2010.9721814

Bottino, M. N., Nadanovsky, P., Moraes, C. L., Reichenheim, M. E., & Lobato, G. (2012). Reappraising the relationship between maternal age and postpartum depression according to the evolutionary theory: Empirical evidence from a survey in primary health services. *Journal of Affective Disorders, 142*, 219-224. doi:10.1016/j.jad.2012.04.030

Buttner, M. M., Brock, R. L., & O'Hara, M. W. (2015). Patterns of women's mood after delivery: A growth curve analysis. *Journal of Affective Disorders, 174*, 201-208. doi:10.1016/j.jad.2014.11.022

Byatt, N., Biebel, K., Lundquist, R. S., Moore Simas, T. A., Debordes-Jackson, G., Allison, J., & Ziedonis, D. (2012). Patient, provider, and system-level barriers and facilitators to addressing perinatal depression. *Journal of Reproductive and Infant Psychology, 30*(5), 436-449. doi:10.1080/02646838.2012.743000

Centers for Disease Control and Prevention. (2015). PRAMStat [Data set]. Retrieved from http://www.cdc.gov/prams/pramstat/index.html

Chu, K. M., Emasealu, O. V., Hu, Z., O'Donnell, F. L., & Clark, L. L. (2015). Risk of mental health disorders following an initial diagnosis of postpartum depression, active component, U. S. Armed Forces, 1998-2010. *Medical Surveillance Monthly Report, 22*(6), 6-12. Retrieved from https://www.afhsc.mil/documents/pubs/msmrs/2015/v22_n06.pdf#Page=6

Cox, J. L., Holden, J. M., Sagovsky, R. (1987). Detection of postnatal depression: Development of the 10-item Edinburgh Postnatal Depression Scale. *British Journal of Psychiatry, 150*(6), 782-786. doi:10.1192/bjp.150.6.782

Cutler, C. B., Legano, L. A., Dreyer, B. P., Fierman, A. H., Berkule, S. B., Lusskin, S. I., … Mendelsohn, A. L. (2007). Screening for maternal depression in a low education population using a two item questionnaire. *Archives of Women's Mental Health, 10*, 227-283. doi:10.1007/s00737-007-0202-z

Delatte, R., Cao, H., Meltzer-Brody, S., & Menard, K. (2009). Universal screening for postpartum depression: An inquiry into provider attitudes and practice. *American Journal of Obstetrics and Gynecology, 200*(5), e63-e64. doi:10.1016/j.ajog.2008.12.022

Do, T., Hu, Z., Otto, J., & Rohrbeck, P. (2013). Depression and suicidality during the postpartum period after first time deliveries, active component service women and dependent spouses, U. S. Armed Forces, 2007-2012. *Medical Surveillance Monthly Report, 20*(9), 2-7. Retrieved from https://www.afhsc.mil/documents/pubs/msmrs/2013/v20_n09.pdf#Page=2

Dorheim, S. K., Bondevik, G. T., Eberhard-Gran, M., & Bjorvatn, B. (2009). Sleep and depression in postpartum women: A population-based study. *SLEEP, 32*(7), 847-855.

Earls, M. F. (2010). Clinical report: Incorporating recognition and management of perinatal and postpartum depression into pediatric practice. *Pediatrics, 126*(5), 1032-1039. doi:10.1542/peds.2010-2348

Field, T. (2010). Postpartum depression effects on early interactions, parenting, and safety practices: A review. *Infant Behavior and Development, 33*, 1-6. doi:10.1016/j.infbeh.2009.10.005

Frayne, S. M., Phibbs, C. S., Saechao, F., Maisel, N. C., Friedman, S. A., Finlay, A., … Haskell, S. (2014). *Sourcebook: Women Veterans in the Veterans Health Administration. Volume 3: Sociodemographics, utilization, costs of care, and health profile.* Washington, DC: Women's Health Evaluation Initiative, Women's Health Services, Veterans Health Administration, Department of Veterans Affairs. Retrieved from http://www.womenshealth.va.gov/WOMENSHEALTH/docs/Sourcebook_Vol_3_FINAL.pdf

Gaillard, A., Le Strat, Y., Mandelbrot, L., Heita, H., & Dubertret, C. (2014). Predictors of postpartum depression: Prospective study of 264 women followed during pregnancy and postpartum. *Psychiatry Research, 215*, 341-346. doi:10.1016/j.psychres.2013.10.003

Giannandrea, S. A. M., Cerulli, C., Anson, E., & Chaudron. L. H. (2013). Increased risk for postpartum psychiatric disorders among women with past pregnancy loss. *Journal of women's health, 22*(9), 760-768. doi:10.1089/jwh.2012.4011

Gjerdingen, D., Crow, S., McGovern, P., Miner, M., & Center, B. (2009). Postpartum depression screening at well-child visits: Validity of a 2-question screen and the PHQ-9. *Annals of Family Medicine, 7*, 63-70. doi:10.1370/afm.993

Gjerdingen, D., Katon, W., & Rich, D. E. (2008). Stepped care treatment of postpartum depression: A primary care-based management model. *Women's Health Issues, 18*, 44-52. doi:10.1016/j.whi.2007.09.001

Gjerdingen, D. K., & Yawn, B. P. (2007). Postpartum depression screening: Importance, methods, barriers, and recommendations for practice. *Journal of the American Board of Family Medicine, 20*(3), 280-288. doi:10.3122/jabfm.2007.03.060171

Hanusa, B. H., Scholle, S. H., Haskett, R. F., Spadaro, K., & Wisner, K. L. (2008). Screening for depression in the postpartum period: A comparison of three instruments. *Journal of Women's Health, 17*(4), 585-596. doi:10.1089/jwh.2006.0248

Haran, C., van Driel, M., Mitchell, B. L., & Brodribb, W. E. (2014). Clinical guidelines for postpartum women and infants in primary care: A systematic review. *BMC Pregnancy and Childbirth, 14*, 51. doi:10.1186/1471-2393-14-51

Harville, E. W., Xiong, X., Pridjian, G., Elkind-Hirsch, K., & Buekens, P. (2009). Postpartum mental health after Hurricane Katrina: A cohort study. *BMC Pregnancy and Childbirth, 9*, 21. doi:10.1186/1471-2393-9-21

Hirst, K. P., & Moutier, C. Y. (2010). Postpartum major depression. *American Family Physician, 82*(8), 926-933.

Jewell, J. S., Dunn, A. L., Bondy, J., & Leiferman, J. (2010). Prevalence of self-reported postpartum depression specific to season and latitude of birth: Evaluating the PRAMS data. *Maternal and Child Health Journal, 14*, 261-267. doi:10.1007/s10995-009-0498-6

Katon, W., Russo, J., & Gavin, A. (2014). Predictors of postpartum depression. *Journal of Women's Health, 23*(9), 753-759. doi:10.1089/jwh.2014.4824

Kim, H. G., Geppert, J., Quan, T., Bracha, Y., Lupo, V., & Cutts, D. B. (2012). Screening for postpartum depression among low-income mothers using an interactive voice response system. *Maternal and Child Health Journal, 16*, 921-928. doi:10.1007/s10995-011-0817-6

Kingston, D., Tough, S., Whitfield, H. (2012). Prenatal and postpartum maternal psychological distress and infant development: A systematic review. *Child Psychiatry and Human Development, 43*(5), 683-714. doi:10.1007/s10578-012-0291-4

Kozhimannil, K. B., Pereira, M. A., & Harlow, B. L. (2009). Association between diabetes and perinatal depression among low-income mothers. *Journal of the American Medical Association, 301*(8), 842-847. doi:10.1001/jama.2009.201

Kozinszky, Z., & Dudas, R. B. (2015). Validation studies of the Edinburgh Postnatal Depression Scale for the antenatal period. *Journal of Affective Disorders, 176*, 95-105. doi:10.1016/j.jad.2015.01.044

Kroenke, K., Spitzer, R. L., & Williams, J. B. W. (2003). The patient health questionnaire-2: Validity of a two-item depression screener. *Medical Care, 41*(11), 1284-1292. doi:10.1097/01.MLR.0000093487.78664.3C

Loudon, H., Nentin, F., Silverman, M. E. (2015). Using clinical decision support as a means of implementing a universal postpartum depression screening program. *Archives of Women's Mental Health.* Online publication. doi:10.1007/s00737-015-0596-y

Martini, J., Petzoldt, J., Einsle, F., Beesdo-Baum, K., Hofler, M., & Wittchen, H. (2015). Risk factors and course patterns of anxiety and depressive disorders during pregnancy and after delivery: A prospective-longitudinal study. *Journal of Affective Disorders, 175*, 385-395. doi:10.1016/j.jad.2015.01.012

Massoud, R., Askov, K., Reinke, J., Franco, L. M., Bornstein, T., Knebel, E., & MacAulay, C. (2001). *A modern paradigm for improving healthcare quality* [Monograph]. Retrieved from https://www.usaidassist.org/sites/assist/files/modernparadigm_2001_0.pdf

Mattocks, K. M., Skanderson, M., Goulet, J. L., Brandt, C., Womack, J., Krebs, E., … Haskell, S. (2010). Pregnancy and mental health among women Veterans returning from Iraq and Afghanistan. *Journal of Women's Health, 19*(12), 2159-2166. doi:10.1089/jwh.2009.1892

McIntosh, J. (1986). Postnatal blues: A bio-social phenomenon. *Midwifery, 2*(4), 187-192.

Milgrom, J., Gemmill, A. W., Bilszta, J. L., Hayes, B., Barnett, B., Brooks, J., … Buist, A. (2008). Antenatal risk factors for postnatal depression: A large prospective study. *Journal of Affective Disorders, 108,* 147-157. doi:10.1016/j.jad.2007.10.014

Molyneaux, E., Howard, L. M., McGeown, H. R., Karia, A. M., & Trevillion, K. (2014). Antidepressant treatment for postnatal depression. *Cochrane Database of Systematic Reviews, 2014*(9), 1-66. doi:10.1002/14651858.CD002018.pub2

Myers, E. R., Aubuchon-Endsley, N., Bastian, L. A., Gierisch, J. M., Kemper, A. R., Swamy, G.K., … Sanders, G. D. (2013). *Efficacy and safety of screening for postpartum depression. Comparative effectiveness review number 106* (AHRQ Publication No. 10-EHC064-EF). Retrieved from http://www.effectivehealthcare.ahrq.gov/search-for-guides-reviews-and-reports/?pageaction=displayproduct&productid=1438

Nguyen, S., LeardMann, C. A., Smith, B., Conlin, A. S., Slymen, D. J., Hooper, T. I., … Smith, T. C. (2013). Is military deployment a risk factor for maternal depression. *Journal of Women's Health, 22*(1), 9-18. doi:10.1089/jwh.2012.3606

O'Connor, E., Rossom, R. C., Henninger, M., Groom, H. C., & Burda, B. U. (2016). Primary care screening for and treatment of depression in pregnant and postpartum women: Evidence report and systematic review for the US Preventive Services Task Force. *Journal of the American Medical Association, 315*(4), 388-406. doi:10.1001/jama.2015.18948

O'Hara, M. W. & McCabe, J. E. (2013). Postpartum depression: Current status and future directions. *Annual Review of Clinical Psychology, 9,* 379-407. doi: 10.1146/annurev-clinpsy-050212-185612

Ohoka, H., Koide, T., Goto, S., Murase, S., Kanai, A., Masuda, T., … Ozaki, N. (2014). Effects of maternal depressive symptomatology during pregnancy and the postpartum period on infant-mother attachment. *Psychiatry and Clinical Neurosciences, 68,* 631-639. doi:10.111/pcn.12171

Schachman, K., & Lindsey, L. (2013). A resilience perspective of postpartum depressive symptomatology in military wives. *Journal of Obstetric, Gynecologic, and Neonatal Nursing, 42,* 157-167. doi:10.1111/1552-6909.12007

Sit, D. K., & Wisner, K. L. (2009). The identification of postpartum depression. *Clinical Obstetrics and Gynecology, 52*(3), 456-468. doi:10.1097/GRF.0b013e3181b5a57c

Siu, A. L., & the US Preventive Services Task Force. (2016). Screening for depression in adults: US Preventive Services Task Force recommendation statement. *Journal of the American Medical Association, 315*(4), 380-387. doi:10.1001/jama.2015.18392

Smith, D. C., Munroe, M. L., Foglia, L. M., Nielsen, P. E., & Deering, S. H. (2010). Effects of deployment on depression screening scores in pregnancy at an Army military treatment facility. *Obstetrics and Gynecology, 116*(3), 679-683. doi:10.1097/AOG.0b016e3181eb6c84

Sockol, L. E., Epperson, C. N., & Barber, J. P. (2011). A meta-analysis of treatments for perinatal depression. *Clinical Psychology Review, 31,* 839-849. doi:10.1016/j.cpr.2011.03.009

Spooner, S., Rastle, M., & Elmore, K. (2012). Maternal depression screening during prenatal and postpartum care at a navy and marine corps military treatment facility. *Military Medicine, 177*(10), 1208-1211.

Stowe, Z. N., Hostetter, A. L., & Newport, D. J. (2005). The onset of postpartum depression: Implications for clinical screening in obstetrical and primary care. *American Journal of Obstetrics and Gynecology, 192,* 522-526. doi:10.1016/j.ajog.2004.07.054

The Joint Commission. (2016). *Joint Commission FAQ page* [website]. Retrieved Sep 16, 2016 from https://www.jointcommission.org/about/jointcommissionfaqs.aspx?CategoryId=52#2332

UCSF Fresno Center for Medical Education and Research. (n.d.). Edinburgh Postnatal Depression Scale. Retrieved from http://www.fresno.ucsf.edu/pediatrics/downloads/edinburghscale.pdf

U. S. Department of Health and Human Services. (2009). *Protection of human subjects.* Code of Federal Regulations, Title 45, Part 46. Retrieved from http://www.hhs.gov/ohrp/policy/ohrpregulations.pdf

U. S. Department of Veterans Affairs, National Center for Veterans Analysis and Statistics. (2014). VETPOP2014 living Veterans by state, age group, gender, 2013-2043 [Data set]. Retrieved from http://www.va.gov/vetdata/docs/Demographics/New_Vetpop_Model/6L_VetPop2014.xlsx

U. S. Department of Veterans Affairs, Veterans Health Administration. (2012, Oct 5). *Maternity health care and coordination* (VHA Handbook 1330.03). Retrieved from http://www.va.gov/vhapublications/publications.cfm?pub=2

U. S. Department of Veterans Affairs, Veterans Health Administration. (2015, Oct 16). *About VHA* [website]. Retrieved from http://www.va.gov/health/aboutVHA.asp

U. S. Department of Veterans Affairs & Department of Defense, The Pregnancy Management Working Group. (2009). *VA/DoD clinical practice guideline for pregnancy management.* Retrieved from http://www.healthquality.va.gov/guidelines/WH/up/

U. S. Preventive Services Task Force. (2009). Screening for depression in adults: U. S. Preventive Services Task Force recommendation statement. *Annals of Internal Medicine, 151*(11), 784-792. doi:10.1059/0003-4819-151-11-200912010-00006

U. S. Preventive Services Task Force. (2016) About the USPSTF. Retrieved from http://www.uspreventiveservicestaskforce.org/Page/Name/about-the-uspstf

World Health Organization. (2016). *International statistical classification of diseases and related health problems 10th revision* [Web app]. Retrieved from http://apps.who.int/classifications/icd10/browse/2016/en

World Health Organization. (2013). *WHO recommendations on postnatal care of the mother and newborn.* Retrieved from http://www.who.int/maternal_child_adolescent/documents/postnatal-care-recommendations/en/

Yawn, B. P., Dietrich, A. J., Wollan, P., Bertram, S., Graham, D., Huff, J., … Pace, W. D. (2012). TRIPPD: A practice-based network effectiveness study of postpartum depression screening and management. *Annals of Family Medicine, 10*(4), 320-329. doi:10.1370/afm.1418

Yawn, B. P., Pace, W., Wollan, P. C., Bertram, S., Kurland, M., Graham, D., & Dietrich, A. (2009). Concordance of Edinburgh Postnatal Depression Scale (EPDS) and Patient Health Questionnaire (PHQ-9) to assess increased risk of depression among postpartum women. *Journal of the American Board of Family Medicine, 22*, 483-491. doi:10.3122/jabfm.2009.05.080155

Zephyrin, L. C., Katon, J. G., Hoggatt, K. J., Balasubramanian, V., Saechao, F., Frayne, S. M., … Yano, E. M. (2014). *VA state of reproductive health report in women Veterans: VA reproductive health diagnoses and organization of care*. Washington, DC: Women's Health Services, Veterans Health Administration, Department of Veterans Affairs. Retrieved from http://www.womenshealth.va.gov/docs/SRH_FINAL.pdf

Appendix A

Example of Edinburgh Postnatal Depression Scale

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

(UCSF Fresno Center for Medical Education and Research, n.d., http://www.fresno.ucsf.edu/pediatrics/downloads/edinburghscale.pdf)

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

(UCSF Fresno Center for Medical Education and Research, n.d., http://www.fresno.ucsf.edu/pediatrics/downloads/edinburghscale.pdf)

Appendix B

Example of Patient Health Questionnaire-2

VA/DoD Clinical Practice Guideline for the Management of Major Depressive Disorder

Table 1: Patient Health Questionnaire-2 (PHQ-2) [22]

Question Number	Over the past two weeks, how often have you been bothered by any of the following problems?	Not at all	Several days	More than half the days	Nearly every day
1	Little interest or pleasure in doing things	0	1	2	3
2	Feeling down, depressed, or hopeless	0	1	1	3
For office coding: Total Score = _____+_____					

Table 2: PHQ-2 Score Interpretation [22]

PHQ-2 Score	Probability of MDD (%)	Probability of any depressive disorder (%)
1	15.4	36.9
2	21.1	48.3
3	38.4	75.0
4	45.5	81.2
5	56.4	84.6
6	78.6	92.9

(VA/DOD, 2016, p. 22)

Appendix C

Example of Medical Record Audit Form

Postpartum Depression Screening
Medical Record Audit

1. Obstetric provider: DoD ☐ Community ☐
2. Active depression: Yes ☐ No ☐
3. History of depression or anxiety: Yes ☐ No ☐
4. Screened for PPD: Yes ☐ No ☐
5. Where: VA ☐ OB ☐ Other:_____
6. Screener: Nurse ☐ APRN ☐ Physician ☐ Other:_____
7. When: 0 to 2 weeks ☐ 2+ to 6 weeks ☐ 6+ to 12 weeks ☐ 12+ to 52 weeks ☐
8. Screening tool: EPDS ☐ PHQ-2 ☐ Other:_____
9. Positive PPD screen: Yes ☐ No ☐
10. Initial treatment: OB ☐ VA PCP ☐ Other:_____
11. First contact with VA PCC:

    0 to 6 weeks ☐ 6+ to 12 weeks ☐ 12+ to 52 weeks ☐ >1 year ☐

12. Who initiated contact: Patient ☐ VA staff ☐
13. First visit with VA PCP:

    0 to 6 weeks ☐ 6+ to 12 weeks ☐ 12+ to 52 weeks ☐ >1 year ☐

Abbreviations: DoD=Department of Defense; PPD=postpartum depression; VA=Department of Veterans Affairs; OB=obstetric provider; APN=advanced practice nurse; EPDS=Edinburgh Postnatal Depression Scale; PHQ-2=Patient Health Questionnaire-2 question form; PCP=primary care provider; PCC=primary care clinic

Appendix D

Documentation of Support from Alaska VA Healthcare System

VA Portland Health Care System (VAPORHCS)
Institutional Review Board (IRB)
CHECKLIST: QUALITY IMPROVEMENT OR ASSURANCE (QA/QI) OR RESEARCH?

Instructions: In accordance with VHA Handbook 1058.05, "VHA Operations Activities[1] That May Constitute Research", VAPORHCS employees may conduct certain operations activities which may or may not constitute research. Whenever the research versus non-research status of an operations activity may be in question, a determination of the status must be made.

Please submit this form to the VAPORHCS Research Office by sending a scanned, signed copy to pvamc-irb@va.gov or via fax to 503-273-5152. Please reference the VHA Operations Activities that May Constitute Research decision tree for an overview of how a decision between research and non-research activities is determined.

Project Title: Improving effectiveness of postpartum depression screening	
Responsible Project Lead: Elizabeth Brown	**Email**: elizabeth.brown2@va.gov
Department: Anchorage Primary Care Clinic	**Role/Title**: RN Care Manager
Are VAPORHCS Medical Center nurses members of the project team? *If yes, once a determination is made, a copy of this signed form will be sent to the Evidence Based Practice Nursing Committee*	YES X NO

CONDITIONS TO BE CONSIDERED FOR DETERMINATION OF RESEARCH VS. NON-RESEARCH OPERATIONS		
NOTE: Answers in this section should be **"TRUE"** in order for the project to be considered **NOT** research. *For answers that may be "false" please provide an explanation in the text fields below regarding how this project may still be QA/QI or contact pvamc-irb@va.gov for guidance.*	**TRUE**	**FALSE**
1) The project is designed and/or implemented for internal VA purposes in support of the VA mission(s).	X	
2) The findings are designed to be used by and within VA (or by entities responsible for overseeing VA).	X	
3) The project is not designed for the purpose of contributing to generalizable knowledge.[2]	X	
4) The project is not designed to produce information that expands the knowledge base of a scientific discipline (or other scholarly field).[2]	X	
5) The project is not funded or otherwise supported as **research** by the Office of Research and Development (ORD) or any other entity (including the Center for Healthcare Equity Research and Promotion [CHERP] or the VISN 4 Competitive Pilot Project Funding [CPPF] program).	X	
6) The project does not meet the definition of a clinical investigation as defined under Food and Drug Administration (FDA) regulations [VHA Handbook 1058.05, page 5, paragraph 5d.(2)].	X	
7) The project does not involve design characteristics typically reflective of research, e.g.: • Double-blind interventions • Use of placebo controls • Prospective patient-level randomization to clinical interventions not tailored to individual benefit	X	

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VA Portland Health Care System (VAPORHCS)
Institutional Review Board (IRB)
CHECKLIST: QUALITY IMPROVEMENT OR ASSURANCE (QA/QI) OR RESEARCH?

8) The proposal includes provisions to ensure that the safety, rights, and welfare of patients and staff are appropriately protected as applicable.[4]	X	
9) There is a documented commitment, in advance of data collection, to a corrective plan given any number of outcomes.	X	
10) The project is **not** intended to meet the requirements set forth by a masters program (or other university level degree program) that requires "research" be conducted.	X	
11) The activity **will not be** supplemented or modified before, during, or after implementation in order to produce information to expand the knowledge base of a scientific discipline or scholarly field of study or otherwise contribute to generalizable knowledge.	X	

PROJECT DESCRIPTION

Reason for Project X Locally initiated Mandated by ☐

In the following fields, please provide enough information about the proposed project that a reviewer understands why and how the work will be performed. Please define all acronyms.

Objectives(s): *What is the purpose of the project? What are the issues/questions being addressed and why?* **The purpose is to improve the effectiveness of postpartum depression screening to facilitate prompt and appropriate treatment of postpartum depression in women Veterans in Alaska. I want investigate how, when, and by whom women are being screened and what is being done with positive screening results.**

Methodology: *How will the work be conducted and where? Who will be involved? Please be detailed in how the work will be conducted including data collection and analyses.* **This project with follow the Plan-Do-Study-Act model of quality improvement. Chart audits will be conducted for baseline data and analyzed to determine an intervention to improve current process. The determined intervention will be implemented in the primary care clinic. Follow up chart audits will be done and analyzed to measure effectiveness of intervention.**
Audited charts will be from the Alaska HCS. Elizabeth Brown will be the chart auditor. Data collected will be maintained on paper audit sheets and transferred to a password protected Microsoft Excel file on my personal thumb drive. Personal indentifiers will not be listed with the chart audit data.

Impact/Significance: *What will be done with resulting information?* **I will make a recommendation for continued postpartum depression screening protocol in the primary care clinic to the Alaska HCS. I plan to submit my findings for publication to the Journal of Women's Health.**

Signature of Responsible Project Lead[3]: /Elizabeth A Brown/ Date: 12-11-15

Print Name of Responsible Project Lead: Elizabeth A Brown

VA Portland Health Care System (VAPORHCS)
Institutional Review Board (IRB)
CHECKLIST: QUALITY IMPROVEMENT OR ASSURANCE (QA/QI) OR RESEARCH?

For projects that involve using/collecting data from sites other than those covered by the VAPORHCS

1. *If the project is being **conducted/coordinated** at a site other than the VAPORHCS:*

   Signature of Medical Center Director: _____ Date: 12/4/14.

2. If your project includes obtaining data or participation from VA sites other than those covered by the VAPORHCS you must request approval from the facility director(s) prior to initiating the project at those facilities.

FOR VAPORHCS IRB OFFICE USE ONLY BELOW THIS LINE

VAPORHCS ACOS/R&D Determination:
Note: The VAPORHCS ACOS/R&D has been designated by the VA Portland Health Care System Director and the VISN20 Network Director to serve as the individual who will evaluate and document the determination for projects conducted at the following VISN20 facilities: Alaska, Spokane, Walla Walla, Roseburg, and White City

X **Not Research**. The ACOS/R&D has determined that based on the responses above and the proposed project description approval by an IRB or other review committee is not needed. The project is considered to be non-research VHA operations activity. If the results of this project are presented or published they cannot be presented as research, nor does it have research approval.

– **Research Project**. As designed this project requires review by an IRB or other appropriate review committee *prior* to initiation. Please refer to the VAPORHCS R&D website for guidance.

– Additional information is needed to make a determination. See comments below.

ACOS/R&D or IRB Analyst Comments:

VAPORHCS ACOS/R&D Signature: Michael Davey Digitally signed by Michael Davey DN: cn=Michael Davey, o=PVAMC, ou=Research Service, email=michael.davey@va.gov, c=US Date: 2014.12.04 14:02:16 -08'00' **Date:** _____

Reference:

VHA Handbook 1058.05: VHA Operations Activities That May Constitute Research

VA Portland Health Care System (VAPORHCS)
Institutional Review Board (IRB)
CHECKLIST: QUALITY IMPROVEMENT OR ASSURANCE (QA/QI) OR RESEARCH?

[1]Examples of operations activities include activities designed for internal VA purposes, including routine data collection and analysis for operational monitoring, evaluation and program improvement purposes, VHA system redesign activities, patient satisfaction surveys, case management and care coordination, policy and guidance development, benchmarking activities, Joint Commission visits and related activities, medical use evaluations, business planning and development such as cost-management analyses, underwriting, and similar activities.
[2]Any change made before, during, or after implementation that results in an intent to expand the knowledge base of a scientific discipline or scholarly field of study, or otherwise contribute to generalizable knowledge, constitutes research and must be submitted to an IRB or other pertinent review committee.
[3]Please note it is the responsibility of this individual and/or each VA author and coauthor (in cases of publication) to retain a copy of this form signed by the ACOS/R&D for a minimum of 5 years after publication and in accordance with any applicable records retention schedules. A copy will also be retained by Research Service and Quality & Performance Service.
[4]Potential risks (including physical, psychological, social, financial, privacy, and confidentiality, and other foreseeable risks) associated with non-research operations should be evaluated and appropriate protections established to mitigate them.

Appendix E

University of Alaska Institutional Review Board Determination

UNIVERSITY of ALASKA ANCHORAGE
INSTITUTIONAL REVIEW BOARD
REQUEST FOR DETERMINATION OF HUMAN SUBJECTS RESEARCH

All research conducted by University of Alaska Anchorage faculty, staff, or students, which involves human subjects must be reviewed by the Institutional Review Board (IRB). To determine if your project involves human subjects or is research under UAA IRB definitions, complete this form and send it to the UAA Research Compliance Office.

For help, contact the Office of Research Integrity & Compliance (ORIC): (907) 786-0916.

Consider your activity (research project, thesis, study, task, assignment) and the data (information) you, a member of your research team, or a collaborator, plan to collect, when responding to these questions.
Activity Examples: surveys, questionnaires, focus groups, interviews • passive observation of public behavior (in physical or online environments, including social media) • experiments using electronic equipment or gaming techniques • the use of instruments or devices, including phones, to collect or monitor or influence behavior • diet, nutrition studies, or taste tests • physical or biomedical procedures, such as imaging, scanning, blood collection, anthropomorphic procedures • studies examining individuals' responses to manipulation of their physical or online environment • studies examining effectiveness of educational tools or curricula • pilot studies and other preliminary studies • any other activity that involves observation of, or interaction with, individuals to gather information for research.

Enter a response for each question, complete Section B on Page 2 and send to uaa_oric@uaa.alaska.edu	Yes/No Not sure
Is all of the data (information) being obtained about deceased people? (If No, skip the next question and go to RD1)	No
In addition to information about the deceased people, are you also collecting information from living persons about their recollections of the deceased people? (If No, stop here and go to RD 2)	
RD1) Does your project only involve existing data, information, documents, or samples that you will obtain from a publicly available source that does not require permission to access the data? (If Yes, stop here and go to RD2.)	No
Does a funding source (federal, state, or local), either directly (direct funder) or indirectly (secondary, or pass-through funder) require IRB review? (If Yes, stop here and go to RD3)	No
Is any of the data (information) being obtained about individuals who are, or could be, living now?	Yes
Is any of the data (information) being obtained, directly or indirectly, from living individuals?	Yes
Are you observing people, directly or indirectly, to collect your information?	No
Are you interacting (face-to-face, through telephone, electronic media or documents) with people?	No
Is the data collected by intervening (taking measurements, samples, images) with people, or observing an intervention carried out by another person?	No
Does the data/information you are collecting only center on things, quantities, or other questions about what item, process, or procedure is used? (If Yes, stop here and go to RD2)	No
Does the data/information you are collecting include the opinions, characteristics, or behavior of individuals?	No
Does the data/information you are collecting include any information that could identify the individuals?	No
Does the data/information you are using to recruit people for your project include any information that could identify the individual?	No
During the process of collecting data, will you or any research team member, be able to identify the individuals?	Yes
Will the data or information you are collecting examine, for example, the function of culture, expression of gender, or political views of members of the population in the study?	No
Could the results of this evaluation be used to make a general conclusion about the data/information you will collect?	Yes
Is this evaluation connected to individual or group outcomes?	No
Could the results of this evaluation impact the future use of similar programs, services, or public policy?	Yes
Can this evaluation affect the development or implementation of other programs of a similar nature?	Yes

UNIVERSITY of ALASKA ANCHORAGE
INSTITUTIONAL REVIEW BOARD
REQUEST FOR DETERMINATION OF HUMAN SUBJECTS RESEARCH

If you answered Not Sure for any question, briefly explain why you are uncertain. Briefly explain here. This medical record audit may be able to generalize about the frequency of postpartum depression screening for the outpatient clinic during the timeframe of the audit.
RD2 – Your work is most likely not human subject research and you do not need to complete the rest of the first section. Complete Section B and return the Request for IRB Determination form for a final confirmation.
RD3 – Your work must be reviewed by the IRB. Go to IRBNet and complete a UAA IRB Proposal and all additional documents for IRB review.

Section B – Instructions, tab to each box and complete the information.

Name: Elizabeth L Brown Today's Date: 9/21/2016

Affiliation with UAA (If this project will be used for class credit, complete the next two lines. If not, skip to Faculty/Staff):

Student Level: Graduate Course Number: NS 696

Faculty Advisor: Dr. Cynthia Montgomery Department: School of Nursing

Faculty or Staff College or School: Department:

Center, Program, or Institute:

Project Title: Postpartum depression screening: Quality improvement project

Project Description: Briefly (< 100 words) describe the project. Medical record audit reviewing postpartum depression (PPD) screening practices at the Alaska Veterans Affairs Healthcare System (AVAHS) for compliance with current American College of Obstetricians and Gynecologists and U. S. Preventive Services Task Force guidelines and current Department of Veterans Affairs (VA) and Department of Defense (DoD) policy. Creation of an intervention to increase awareness of PPD and improve screening rates if needed. This project has already been determined to not be research by the VA Portland Health Care System IRB.
Population: Briefly describe the population of interest. Records of female Veterans receiving care at the AVAHS and the healthcare providers employed by the AVAHS.
Plan: Briefly describe how you will interact or intervene with the population and the information you will collect. Data collection through medical record audit: where maternity care received; presence of active depression diagnosis; presence of history of depression or anxiety; completion of PPD screening and result; who, where, when, and how PPD screening completed; if initial treatment or referral for treatment occurred; when women returned to AVAHS for ongoing care and who initiated the contact with the AVAHS. Data analysis using SPSS. Information collected from audit and literature review will be used to create an educational intervention which will be delivered to AVAHS healthcare providers either electronically or in paper format. Results to be compiled into a manuscript or poster presentation.

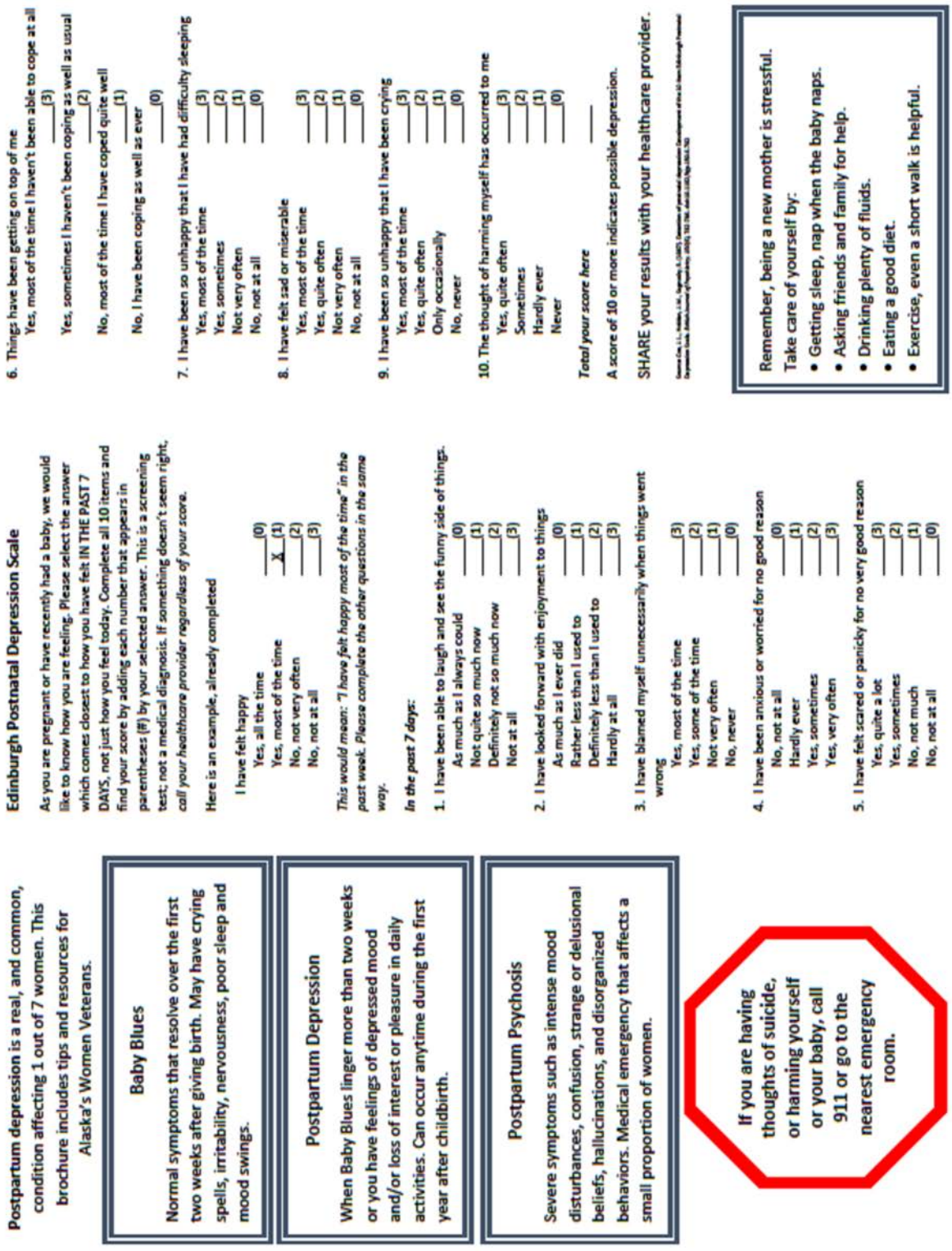
For Office of Research Integrity & Compliance Use Only

Final Determination: HSR Not HSR

Statement of Findings: Focus on methods, procedures, and processes used, not on the people & their thoughts.

Appendix F

Example of Patient Brochure



Postpartum Depression You Are Not Alone

Information for Alaska's Women Veterans

Women Veterans Program Manager
Alaska VA Healthcare System
(907) 257-4737

VA HEALTH CARE | Defining EXCELLENCE in the 21st Century

Veterans Crisis Line
1-800-273-8255 PRESS 1

National Veterans Crisis Line
Available 24 hours a day, 7 days a week
www.veteranscrisisline.net

Alaska VA Outpatient Clinics
Anchorage
Fairbanks, Juneau, Kenai, Mat-Su
(907) 257-4700
or
Toll-Free 888-353-7574

****

AWAIC
Abused Women's Aid In Crisis

24-hour crisis and support hotline for domestic violence
(907) 272-0100
www.awaic.org

Updated 01/2017

Counseling and Treatment Opportunities

- *VA Social and Behavioral Health*
  Veteran or primary care provider can refer.
  (907) 257-4854
- *Mom Mood Booster* Online Program
  www.psychology.uiowa.edu/mommoodbooster/
  866-849-6636
- *Vet Centers*
  Veterans of combat or military sexual trauma are eligible.
  Anchorage, Fairbanks, Kenai, and Wasilla
  1-877-WAR-VETS (1-877-927-8387)

Wellness Opportunities

- *Women's Yoga*
  Anchorage VA Clinic on the 2nd and 4th Wednesdays of the month at 5-6 PM in rooms 2D 107/109.
  (907) 257-4726
- *MOVE!* Weight management program
  Group sessions, Telephone lifestyle coaching, or Online messaging
  Ask your primary care provider for referral.
  www.move.va.gov/MOVE

Education and Additional Resources

- *Postpartum Support International*
  www.postpartum.net
- *MedEd Postpartum Depression*
  www.mededppd.org
- *Women Veterans Health Care*
  www.womenshealth.va.gov

Appendix G

Example of Provider Brochure

Postpartum depression is a real, and common, condition occurring during the first year after childbirth. An estimated 1 out of 4 women suffer from depressive symptoms. Untreated postpartum depression affects the lives of mothers, their babies, and the whole family. This brochure includes several resources in caring for Alaska's Women Veterans with postpartum depression.

Screening Tools

- *Edinburgh Postnatal Depression Scale*
- *The Patient Health Questionnaire-2*

These are just two examples. Other validated tools exist.

Follow up on positive screens. There is no replacement for clinical judgement.

Medication Safety

- *LactMed*
  Free NIH database containing information on drugs and other chemicals to which breastfeeding mothers may be exposed. www.toxnet.nlm.nih.gov/newtoxnet/lactmed.htm
- *Reprotox*
  A database on the reproductive effects of chemicals, medications, physical agents, and biologics. Available on VA intranet or through private subscription. www.reprotox.org

Edinburgh Postnatal Depression Scale

Select the answer which comes closest to how you have felt IN THE PAST 7 DAYS, not just how you feel today. Complete all 10 items and find your score by adding each number that appears in parentheses (#) by your selected answer.

Here is an example, already completed

I have felt happy
Yes, all the time ___(0)
Yes, most of the time __X__(1)
No, not very often ___(2)
No, not at all ___(3)

This would mean: "I have felt happy most of the time" in the past week. Complete the other questions in the same way.

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 ___(0)
   Not quite so much now ___(1)
   Definitely not so much now ___(2)
   Not at all ___(3)
2. I have looked forward with enjoyment to things
   As much as I ever did ___(0)
   Rather less than I used to ___(1)
   Definitely less than I used to ___(2)
   Hardly at all ___(3)
3. I have blamed myself unnecessarily when things went wrong
   Yes, most of the time ___(3)
   Yes, some of the time ___(2)
   Not very often ___(1)
   No, never ___(0)
4. I have been anxious or worried for no good reason
   No, not at all ___(0)
   Hardly ever ___(1)
   Yes, sometimes ___(2)
   Yes, very often ___(3)
5. I have felt scared or panicky for no very good reason
   Yes, quite a lot ___(3)
   Yes, sometimes ___(2)
   No, not much ___(1)
   No, not at all ___(0)
6. Things have been getting on top of me
   Yes, most of the time I haven't been able to cope at all ___(3)
   Yes, sometimes I haven't been coping as well as usual ___(2)
   No, most of the time I have coped quite well ___(1)
   No, I have been coping as well as ever ___(0)
7. I have been so unhappy that I have had difficulty sleeping
   Yes, most of the time ___(3)
   Yes, sometimes ___(2)
   Not very often ___(1)
   No, not at all ___(0)
8. I have felt sad or miserable
   Yes, most of the time ___(3)
   Yes, quite often ___(2)
   Not very often ___(1)
   No, not at all ___(0)
9. I have been so unhappy that I have been crying
   Yes, most of the time ___(3)
   Yes, quite often ___(2)
   Only occasionally ___(1)
   No, never ___(0)
10. The thought of harming myself has occurred to me
    Yes, quite often ___(3)
    Sometimes ___(2)
    Hardly ever ___(1)
    Never ___(0)

Total your score here ___

A score of 10 or more indicates possible depression.

Source: J.L. Cox, J.M. Holden, & R. Sagovsky, © (1987). Detection of Postnatal Depression: Development of the 10-item Edinburgh Postnatal Depression Scale. British Journal of Psychiatry, 150(6), 782-786. doi: 10.1192/bjp.150.6.782

The Patient Health Questionnaire-2 (PHQ-2)

Over the past 2 weeks, how often have you been bothered by any of the following problems?	Not at all	Several days	More than half the days	Nearly every day
1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed, or hopeless	0	1	2	3

Responses from both questions are added together. A score of 3 or greater indicates possible depression.

Source: K. Kroenke, R.L. Spitzer, & J.B.W. Williams, © (2003). The Patient Health Questionnaire-2: Validity of a two-item depression screener. Medical Care, 41(11), 1284-1292. doi: 10.1097/01.MLR.0000093487.78664.3C

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VA HEALTH CARE | Defining EXCELLENCE in the 21st Century

Veterans Crisis Line
1-800-273-8255 PRESS 1

National Veterans Crisis Line
Available 24 hours a day, 7 days a week
www.veteranscrisisline.net

Alaska VA Outpatient Clinics
Anchorage
Fairbanks, Juneau, Kenai, Mat-Su
(907) 257-4700
or
Toll-Free 888-353-7574

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AWAIC
Abused Women's Aid In Crisis
24-hour crisis and support hotline for domestic violence
(907) 272-0100
www.awaic.org

Updated 01/2017

Postpartum Depression

You Are Not Alone

Information for Health Care Providers Working with Alaska's Women Veterans

Women Veterans Program Manager
Alaska VA Healthcare System
(907) 257-4737