Distribution Agreement

in presenting this thesis as a partial fulfillment of	the requirements for an advanced degree from
Emory University, I hereby grant to Emory Unive	•
archive, make accessible, and display my thesis in	whole or in part in all forms of media, now or
hereafter known, including display on the world vaccess restrictions as part of the online submission	n of this thesis. I retain all ownership rights to
the copyright of the thesis or dissertation. I also rearticles or books) all or part of this thesis.	etain the right to use in future works (such as
Shalonda Halsey Freeman	 Date

ASSESSMENT OF SCREENING AND TREATMENT PRACTICES OF PERINATAL MOOD DISORDERS AMONG OBSTETRICIAN-GYNECOLOGISTS IN GEORGIA

BY

Shalonda Halsey Freeman, Ph.D. Degree to be awarded: M.P.H. Career MPH

Grant Baldwin, PhD, MPH, Committee Chair	Date
Hedwige Saint Louis, MD, MPH, Field Advisor	Date
Melissa Alperin, MPH, CHES	Date
Chair, Career MPH Program	

ASSESSMENT OF SCREENING AND TREATMENT PRACTICES OF PERINATAL MOOD DISORDERS AMONG OBSTETRICIAN-GYNECOLOGISTS IN GEORGIA

BY

Shalonda Halsey Freeman M.P.H., Emory University, 2012 Ph.D., Clark Atlanta University, 2004 B.S., Alabama A&M University, 1999

Thesis Committee Chair: Grant Baldwin, Ph.D., M.P.H.

An abstract of
A Thesis submitted to the Faculty of the
Rollins School of Public Health of Emory University
in partial fulfillment of the requirements of the degree of
Master of Public Health in the Career MPH program
2012

Abstract

ASSESSMENT OF SCREENING AND TREATMENT PRACTICES OF PERINATAL MOOD DISORDERS AMONG OBSTETRICIAN-GYNECOLOGISTS IN GEORGIA

BY Shalonda Halsey Freeman, Ph.D.

Perinatal mood disorders (PMD) encompass a variety of psychiatric disorders, ranging from anxiety and depression to psychosis, which may manifest during pregnancy and the first year postpartum. These disorders can have a devastating effect on the mother, infant and family; therefore, it is important to screen women for these problems and to provide adequate treatment. Obstetrician-gynecologists are in a key position to identify women in need of psychological care because of the frequent interaction they have with women during pregnancy and postpartum. This study explored the screening and treatment practices of PMD among obstetrician-gynecologists in Georgia through the employment of an anonymous, web-based survey. The data collected provided a preliminary view of the status of screening and treatment of PMD among obstetrician-gynecologists and the need for better resources and training. Further assessment is needed to appropriately make any conclusive statements regarding the screening and treatment practices of obstetrician-gynecologists in Georgia concerning PMD.

ASSESSMENT OF SCREENING AND TREATMENT PRACTICES OF PERINATAL MOOD DISORDERS AMONG OBSTETRICIAN-GYNECOLOGISTS IN GEORGIA

BY

Shalonda Halsey Freeman M.P.H., Emory University, 2012 Ph.D., Clark Atlanta University, 2004 B.S., Alabama A&M University, 1999

Thesis Committee Chair: Grant Baldwin, Ph.D., M.P.H.

A Thesis submitted to the Faculty of the Rollins School of Public Health of Emory University in partial fulfillment of the requirements of the degree of Master of Public Health in the Career MPH program 2012

ACKNOWLEDGEMENTS

With sincere gratitude and appreciation for all the support given to me throughout my matriculation, I give special thanks to:

My husband, Shawn, and children for constantly supporting me and encouraging me to continue onward when things became difficult. I could not have done this without you.

My thesis committee members, Dr. Grant Baldwin and Dr. Didi Saint Louis, for taking time out of your busy schedules to guide me through this thesis process. Thank you for your service.

My friends for all the kind words of encouragement. Your support has meant a great deal to me.

Table of Contents

Abstractiv
Table of Contents
List of Tables
List of Figures
Chapter 1: Introduction1
Introduction and Rationale
Problem Statement
Purpose Statement
Research Questions
Significance Statement
Definition of Terms.
Chapter 2: Review of the Literature
Introduction5
Review of Literature
Physicians' Perceptions of Addressing Perinatal Depression5
Societal Support for Perinatal Depression
Summary of Current Problem and Study Relevance
Chapter 3: Methodology
Introduction
Population and Sample
Research Design 13
Data Collection Procedures

Instruments	
Data Analysis	
Limitations and Delimitations	
Chapter 4: Results	16
Introduction	16
Findings	16
Demographic Characteristics	16
Screening Practices	17
Treatment Practices	
Training and Resources	20
Summary	21
Chapter 5: Discussion	
Introduction	22
Summary of Study	22
Conclusion	23
Screening Practices	23
Treatment Practices	24
Training and Resources	24
Implications	25
Recommendations	25
Summary	27
References	28
Appendix A: Emory IRB Determination Letter	31

List of Tables

Table 1. Demographic Characteristics of Respondents	
Table 2. Scores of Respondents' Treatment Practices	20
Table 3. Resources Identified by Respondents as Necessary	
for Screening and Treating PMD	20
List of Figures	
Figure 1. Years Screening for PMD	18
Figure 2. Respondents' Treatment Practices regarding PMD	19

Chapter 1

Introduction

Introduction and Rationale

The upcoming birth of a child should be an exciting and happy time in every expectant mother's life. However, that is not the case for 10% to 15% of women in the general population who experience depression during pregnancy and postpartum (Gavin et al., 2005; Gaynes et al., 2005). Depression is the more common, but not the only, psychological disorder that affects women in the perinatal period. Perinatal Mood Disorders (PMD) encompass a wide range of symptoms or illnesses that may manifest during pregnancy and the first year postpartum. These include: anxiety/depression in pregnancy, postpartum depression (PPD), postpartum panic disorder, postpartum obsessive-compulsive disorder (PPOCD), postpartum posttraumatic stress disorder (PPPSTD), and postpartum psychosis (PPP) (Postpartum Support International, 2009). If left untreated, PMD adversely impacts the health of the mother and infant. For this reason, it is imperative that women are screened for PMD during pregnancy and after the birth of the child.

Problem Statement

Depression affects all women, regardless of age, race, ethnicity, socioeconomic status or educational level. In fact, depression is the main cause of disease-related disability among women (Kessler, 2003; Gaynes et al., 2005). Unfortunately, the risk of depression among women of childbearing age increases (Robins & Regier, 1991; Burke et al., 1991; Gaynes, et al., 2005; Price & Proctor, 2009). There are factors that contribute to this elevation of risk. They include prior history of mental or depressive illnesses, current stressors, estrangement from

partner, prior or current history of abuse or neglect and lack of support from significant others (Brugha et al., 1998; Austin, 2004; Robertson, et al., 2004; Earls et al., 2010).

Often, more attention is given to the possibility of depressive and anxiety disorders postpartum; however there is sufficient evidence showing that these disorders occur during pregnancy as well. In fact, Dietz and colleagues (2007) have shown that almost half of women with depression during pregnancy experience depression during the postpartum period. Early detection and treatment of PMD in pregnancy is important and benefits the mother, infant and entire family. Without proper intervention, the consequences can be devastating. For instance, PMD has been associated with low birth weight among babies, infant irritability and excessive crying, preterm birth, diminished mother-child interaction and increased levels of psychiatric disturbances among children (Teixeira et al., 1999; Zuckerman et al., 1990; Gavin et al., 2005; Misri & Kendrick, 2007; Kurki et al., 2000; Apter et al., 2011).

PMD is comprised of serious psychological disorders that can affect mother, infant and family. Unfortunately during the perinatal period, these disorders are often underestimated, not evaluated and therefore undiagnosed, which also indicates that they go untreated. Obstetrician-gynecologists are in a prime position to identify women in need of psychological care because of the amount of interaction they have with women during pregnancy and postpartum. In fact, the American College of Obstetricians and Gynecologists (ACOG) (2010) supports screening for perinatal mental health issues and encourages its physician members to do so. However, rates of detection for depression in obstetric and gynecologic settings are low (Buekens et al., 1998; Leddy et al., 2011). It is important to understand the screening and treatment practices of obstetrician-gynecologists regarding PMD to provide better care for the mental health of women.

Purpose Statement

This project explored the screening and treatment practices for PMD among obstetrician-gynecologists in Georgia through the administration of an anonymous, web-based survey. A sample of obstetrician-gynecologists in the metropolitan Atlanta area identified the frequency in which screening for PMD occurred within their practices and treatment methods employed when mood disorders were identified. The data collected provided a preliminary view of the status of screening and treatment of PMD among obstetrician-gynecologists and the need for better resources and training.

Research Questions

Screening Practices. Do obstetrician-gynecologists screen patients for PMD? How often do obstetrician-gynecologists screen patients for PMD? At what time points during the perinatal period does screening occur?

Treatment Practices. Do obstetrician-gynecologists treat patients for PMD? What type of treatment is provided for patients who are identified as having PMD?

Training and Resources. How do obstetrician-gynecologists perceive their ability to screen for PMD? How do obstetrician-gynecologists perceive their ability to treat PMD? What resources do obstetrician-gynecologists feel are necessary to better screen for and treat PMD?

Significance Statement

In Georgia, the self-reported prevalence of postpartum depressive symptoms (PDS) is 16.6% (MMWR). Were the women that reported this information screened by a physician? Were referrals to mental health specialists made? Unfortunately, the answers to these questions are unknown. However, given the low rate of screening among obstetrician-gynecologists, it is likely that the answer to these questions is no. This study is intended to provide insight into the

screening and treatment practices of obstetrician-gynecologists in Georgia regarding PMD in hopes of enhancing the resources and training needed to equip physicians with the knowledge and skills to adequately care for the mental health of women. Results of this study may be beneficial to medical schools, private practices and organizations such as Georgia Obstetrical and Gynecological Society, Incorporated (GOGS) and ACOG to identify opportunities for professional development and training. In addition, this study will provide information on the effectiveness and practicality of assessing physician perceptions regarding PMD via web-based surveys.

Definition of Terms

Perinatal Mood Disorders refer to a range of disorders or conditions that include moderate to severe depression, anxiety and/or psychosis during pregnancy and after childbirth.

Postpartum refers to the period following the birth of an infant up to twelve months. It is used in reference to the mother.

Perinatal refers to the entire period of pregnancy up to twelve months after childbirth.

Physicians. The usual definition refers to any person licensed to practice medicine. However, in this study the use of the term refers to doctors specializing in obstetrics and

gynecology.

Chapter 2

Review of the Literature

Introduction

Depression, along with other psychiatric disorders, is a significant public health burden due to its increased morbidity and mortality in patients with depressive symptoms, particularly among women (LaRocco-Cockburn et al., 2003). This chapter explores literature relevant to physicians' perceptions of addressing perinatal depression and societal support for perinatal depression by way of screening, diagnosis, treatment and education. Articles for this literature review were identified based upon the relevance to the topics of interest, which included PMD, perinatal and postpartum depression and screening practices among obstetrician-gynecologists.

Review of Literature

Physicians' Perceptions of Addressing Perinatal Depression

Seven studies have been identified that examine the perceptions of PMD, particularly depression and anxiety, among physicians. One of the earlier studies conducted by Schmidt and colleagues (1997) found that obstetrician-gynecologists who described themselves as primary care physicians diagnosed and treated depression in women significantly more often than those who viewed themselves as specialists. In short, the study explored the management of depression among ACOG fellows by administering a self-report survey. Questionnaires were sent to 1370 ACOG fellows, of which 60% responded. Findings showed that, on average, 4 new cases of depression per month were diagnosed, with a significant number of diagnoses coming from obstetrician-gynecologists self-defined as primary care physicians. Respondents were more likely to inquire about patients' personal history of depression than to use a symptom checklist.

If a diagnosis of depression was made during pregnancy, obstetrician-gynecologists were unlikely to prescribe antidepressant medication. Disturbingly, the study revealed that 80% of obstetrician-gynecologists did not receive residency training in the treatment of clinical depression and 60% had not completed a continuing medical education course on depression management. As one of the first studies to show that depression diagnosis occurs among obstetrician-gynecologists, it indicated the need for more professional training for obstetrician-gynecologists in diagnosis and treatment of clinical depression in women.

In 2003, Dietrich and colleagues published findings from a national survey assessing the attitudes and behavior of newer obstetrician-gynecologists in depression care. A paper-based survey was mailed to 1000 randomly selected obstetrician-gynecologists (recent graduates), who had completed residency training within the past five years, and senior residents (current residents), who were within two or three months of completing training. A total of 437 (64%) eligible physicians completed the survey and received incentives for participation. Current residents (72%, n=156) were more likely to identify themselves as primary care physicians than were recent graduates (59%, n=281); even though the proportions for both groups were high. Overall, less than half of all respondents thought they were well prepared by their residency to recognize depression (31%), treat depression with counseling (6.4%) or medication (10%), or to co-manage depression with a mental health profession (36.5%). Ninety-four percent of all respondents considered recognition of depression to be their responsibility. Assessment of physicians' methods of recognition and diagnosis of depression revealed that routine questioning and screening instruments were rarely used. The most common cue for recognition of depression among this population was that the patient appeared depressed. In conclusion, the findings from this study suggest that although newer obstetrician-gynecologists are receiving increased

instructive training in mental health, it has not translated into better practice patterns or confidence in depression care.

A cross-sectional study assessing depression screening attitudes and practices among obstetrician-gynecologists was conducted in the state of Washington in April 2001 (LaRocco-Cockburn et al., 2003). The study's purpose was three-fold: 1) "estimate the frequency of depression screening; 2) describe attitudes regarding depression screening; and 3) identify factors that positively or negatively affect the use of depression screening by obstetriciangynecologists." Surveys were mailed to 615 obstetrician-gynecologists with membership in Washington State ACOG. A total of 505 physicians were eligible for inclusion, but only 282 surveys were returned. This yielded a 56% response rate. The survey revealed several interesting findings. Forty-four percent of respondents reported screening for depression, whereas, 15% reported never screening for depression. The majority (90%) of respondents reported positive attitudes towards depression screening and agreed that obstetrician-gynecologists should screen for depression. However, 56% of respondents agreed that depression screening of all patients would be difficult, noting time constraints as the main barrier. In conclusion, the authors suggest that healthcare systems should allow providers time, appropriate resources and training to better identify and treat or refer depressed patients in order to eliminate provider uncertainty regarding treatment outcomes.

Leiferman and colleagues (2008) realized that most primary care physicians failed to diagnose and treat maternal depression in their practices, even though there was increased emphasis on screening. The authors sought to address this gap by examining the relationships among primary care physicians' practices in identifying and managing maternal depression. The study sample included 217 primary care physicians practicing medicine in family medicine

(n=87), obstetrics (n=49) and pediatrics (n=81) in Southeastern Virginia. Respondents completed the survey by mail or web. The study showed that physicians, across all specialties, believed that it was their responsibility to recognize maternal depression. Yet, 40% of physicians reported rarely or never assessing for maternal depression and 66% reported rarely or never referring a patient for treatment. Limited time, patient barriers, lack of knowledge and skills, and responsibility of follow-up were the most commonly perceived barriers to managing maternal depression across all specialties. Overall, physicians perceived mental health training and resources to be inadequate. The findings of this study emphasize the need for better physician-patient interaction in managing maternal depression in primary care settings. In addition, it reinforces the recommendation for depression screening in primary care.

In a study of obstetrician-gynecologists' current screening patterns for and knowledge of anxiety during pregnancy, researchers hypothesized that the rates of anxiety screening during pregnancy would be low (Coleman et al., 2008). The hypothesis was tested by administering a paper-based survey to 1193 fellows and junior fellows of ACOG, of which 397 surveys were completed. Anxiety screening during pregnancy was low, with 20% of respondents reporting affirmatively. The reasons for low anxiety screening in pregnancy were time constraints and inadequate training on anxiety disorders. The majority of obstetrician-gynecologists felt their residency training to recognize (37.9%), diagnose (44.3%), and treat (50.3%) anxiety was barely adequate. The authors concluded that increased training in anxiety disorders and development of validated screening instruments would benefit obstetrician-gynecologists in screening for anxiety during pregnancy.

Palladino and colleagues (2011) conducted a qualitative study to better understand how prenatal care providers perceive factors that influence delivery of care for perinatal depression.

Semi-structured interviews were conducted with 20 prenatal care providers from six obstetric clinics. The 20 participants were a diverse group of providers that included obstetricians, nurses, medical assistants, social workers and administrators. The clinics were part of two health care systems; a university-affiliated network and a nonprofit organization with federally qualified health centers. The study revealed that even though study clinics had depression screening protocols in place, the decision to address perinatal depression was made by the individual providers and undefined per clinic. This resulted in highly inconsistent practice patterns among providers within the same clinic. In addition, providers allowed internal influences, such as role identity and comfort level, to guide their decision making in the delivery of care, even though they acknowledged external influences like logistical resources and cultural norms. These findings highlight the important position that internal factors play in a provider's decision to provide care for perinatal depression. Targeting external influences, such as instructive training, is not the only means of changing provider behavior.

A study conducted by Leddy and colleagues (2011) investigated obstetrician-gynecologists' knowledge, attitudes and practices regarding postpartum mental health screening and diagnosis. Surveys on postpartum depression (PPD) and postpartum psychosis (PPP) were sent to 400 fellows and junior fellows of ACOG. A total of 232 surveys were returned, however, the final sample included 176 surveys from currently practicing physicians. The study findings showed that 72.4% of respondents screen for PPD and 30.5% screen for PPP. Only 34% of obstetrician-gynecologists reported that they had completed a continuing medical education course about postpartum mental health in the past five years. A majority (86.9%) of respondents felt that diagnosing postpartum mental health illnesses was an obstetrician-gynecologist's professional responsibility. Yet, almost all respondents indicated that their residency training on

PPD (79.4%) and PPP (87.4%) did not adequately prepare them to screen and diagnose these illnesses. The perceived barriers to screening for PPD and PPP were similar to those found in other studies which included inadequate training, time constraints, and lack of knowledge of diagnostic measures. The authors concluded that the study findings counter pre-existing beliefs that obstetrician-gynecologists are not screening for postpartum mental illness; yet, more should be done to alleviate barriers to screening.

The studies discussed herein show the feasibility of implementing exploratory surveys using self-report questionnaires, particularly among medical professionals. The findings illustrate that obstetrician-gynecologists are receptive to improving the care provided to women with perinatal mental illness. In addition, the findings highlight the need for the development of innovative and novel models to implement evidence-based perinatal mental health care in obstetric practices.

Societal Support for Perinatal Depression

Over the past 10 years, societal support for perinatal mental health, particularly postpartum depression, has increased. Professional organizations, state and federal government have openly admitted that maternal depression is an important issue with adverse effects on families that need to be addressed. Public health initiatives have been implemented around the country to support early identification and treatment of perinatal depression. The most notable advancement in the fight against perinatal depression is the enactment of the Melanie Blocker Stokes Mom's Opportunity to Access Health, Education, Research, and Support for Postpartum Depression Act (MOTHERS Act). It establishes a comprehensive federal commitment to combating postpartum depression through research, education and support service programs (H.R. 3590, 2010). This act was passed as part of the Patient Protection & Affordable Care Act

2010 (H.R. 3590). It has the potential to give providers the support and training needed to combat this major public health issue.

A federal depression initiative called Healthy Start has been in existence since 1991. It is funded by the Health Resources and Services Administration of the U.S. Department of Health and Human Services to reduce infant mortality by improving perinatal outcomes (Yonkers, et al., 2009). During the 2001-2004 funding period, the initiative mandated grantees to incorporate screening for depression, as well as education programs for providers, paraprofessionals and the general public. On a state level, 14 states have enacted policies or legislation addressing maternal depression. For example, New Jersey (S. 213, 2006) introduced legislation that mandated screening for maternal depression. It was the first state in the U.S. to do so. Minnesota passed the Postpartum Depression Education and Information Law (S.F. 2278, 2006) that requires medical providers who provide prenatal care to make information about postpartum depression available to patients. In Oregan, House Bill 2666 (2009) created a statewide workgroup on maternal mental health disorders within the Department of Human Services.

Professional organizations such as ACOG, American Academy of Pediatrics (AAP) and the American Psychiatric Association (APA) have advocated heavily for routine maternal depression screening. In fact, in the 2009, the newly elected president of ACOG announced that he would make perinatal depression his presidential initiative (Joseph 2009). The AAP formally recommended that perinatal and postpartum depression screening and management be incorporated in pediatric practices (Earls et al., 2010). Even though there is support for routine maternal depression screening from all facets of society, including government and healthcare organizations, the U.S. Preventive Services Task Force does not recommend routine screening. It

recommends screening only if further diagnostic and treatment protocols are in place for follow up on screening results (U.S. Preventive Services Task Force 2002).

Summary of Current Problem and Study Relevance

Historically, psychiatric diagnoses have been overlooked in obstetric and gynecologic settings. However, more recent research has emerged to assess the perceptions, knowledge and practices regarding postpartum mental health among obstetrician-gynecologists. It is known that obstetrician-gynecologists view postpartum mental health care as a part of women's health care in which they provide, even though the residency experience may not have adequately trained them to do so. In addition, the barriers to screening and diagnosing mental health issues have been recognized as a major deterrent to the care of women's mental health. With the goal of feasibility in mind, the current study further explores screening and treatment of perinatal mood disorders, which encompasses the entire pregnancy period and a year after childbirth. Whereas, most studies in the literature focus on depression and anxiety disorders in the postpartum period.

Chapter 3

Methodology

Introduction

An assessment of the screening practices for and treatment of PMD among obstetricians and gynecologist in Georgia was conducted by an anonymous, web-based survey. The survey was disseminated to obstetricians and gynecologists who practice in the metropolitan Atlanta area. The link to the web-based survey was sent to physicians by email through email list serves. This chapter will further describe the population, research design, data collection, data analysis and project limitations and delimitations.

Population and Sample

Obstetrician-gynecologists provide the first line of care to women during pregnancy and after the birth of a child; thereby positioning themselves with many opportunities to provide perinatal mental health care. For this study, obstetrician-gynecologists from 7 private practices in Metropolitan Atlanta and obstetric and gynecologic departments at Emory University School of Medicine and Morehouse School of Medicine were queried. Sampling from within these organizations was performed based upon prior relationships with personnel at each organization. Completion of the survey was strictly voluntary. The convenience of the online survey allowed each participant to complete the survey in the privacy of a home or office setting.

Research Design

This study used a quantitative approach in examining physician screening and treatment practices for PMD. The study included a web-based survey with close-ended and open-ended questions to better understand physicians' needs regarding screening and treating PMD, as well

as needed resources for improving these practices. Creation and dissemination of the survey in an online format was performed to ensure convenience, simplicity and anonymity.

Data Collection Procedures

The Emory University Institutional Review Board (IRB) determined that no IRB review was required for this study as outlined in the determination letter (Appendix A). Therefore, the online survey link was given to representatives at each location to send to physicians by email through an email list serve. Specifically, office and department administrators at each organization were contacted by telephone, given an overview of the study and asked to send the online survey to physicians within the organization. Upon verbal agreement from the administrator, an email containing the link to the survey and an introductory statement on the survey was sent to the administrator for dissemination to the physicians. Completion of the survey was voluntary and anonymous. Those physicians who chose to complete the survey were given twenty-three days to complete it.

Instruments

Participants were administered a web-based survey (Appendix B) to collect information on screening practices and treatment of PMD. The survey was divided into the following four sections: screening practices, treatment practices, training and resources, and demographic information. It consisted of 31 questions to be completed in 10 minutes or less. The types of questions included in the survey were multiple choice, likert scale and short answer. In addition, demographic questions included age, race, gender, years in practice, practice structure and location, and ethnic/racial composition of patient population.

Data Analysis

Data were analyzed using a statistical software package, SPSS 20 (IBM Corp., Somers, NY). Frequency distributions and measures of central tendency were conducted to summarize data. Findings were not examined for associations between variables due to low survey response.

Limitations and Delimitations

There were a few potential weaknesses that were inherent to the study. The survey was designed as an anonymous survey to protect the privacy of the participants. Therefore, no formal or informal recruitment or consent process occurred. Participation in the study was voluntary and left up to the good will of the physicians who received the online survey, which resulted in low response to the survey. In addition, due to the data collection method being a survey, the data were self-reported which introduced recall bias and affects the validity of the study. Other factors relevant to the study have limited the scope of the study. The study included obstetriciangynecologists in the metropolitan Atlanta area. This limited the study scope in that it does not allow access to all eligible physicians who care for women and infants, such as pediatricians and primary care physicians. In addition, it did not allow for a representative sample of the obstetrician-gynecologists that serve in Georgia, for instance, those physicians practicing in rural areas.

Chapter 4

Results

Introduction

Survey data collected from an assessment of screening and treatment practices of PMD among obstetrician-gynecologists are presented in this chapter. Results from the online anonymous survey will be described based upon the following categories: screening practices, treatment practices, and training and resources. Demographic characteristics of the respondents will be presented first. The chapter will end with a summary of pertinent findings.

Findings

Demographic Characteristics

A total of 18 physicians responded to the survey; however, 2 respondents did not complete the entire survey. This yielded a final sample population of 16 respondents.

Unfortunately, a response rate could not be calculated because of the anonymous nature of the survey which did not allow access to identifiable information. A depiction of demographic characteristics such gender, race, age, practice location and years since residency/fellowship completion are outlined in Table 1.

Table 1. Demographic Characteristics of Respondents

	Sample
	(n=16)
Gender	
Male	5 (31.3%)
Female	11 (68.8%)
Race	
White/Caucasian	12 (75%)
Black/African American	3 (18.8%)
American Indian/Alaska Native	1 (6.3%)
Age	
18-29y	2 (12.5%)
30-49y	11 (68.8%)
50-64y	2 (12.5%)
>65y	1 (6.3%)
Practice Location	
City	15 (93.8%)
Suburb	1 (6.3%)
Years Post-residency/fellowship	
0-5	6 (37.5%)
6-10	4 (25%)
11-15	1 (6.3%)
16-20	2 (12.5%)
>20	3 (18.8%)

Less than half of the respondents worked in small (37.5%, n=6) and medium (37.5%, n=6) sized practices that consisted of 1 to 5 and 6 to 10 physicians, respectively. Seventy-five percent (n=12) of these practices were staffed with mid-level providers, such as, certified nurse midwives, nurse practitioners and physician assistants. Fourteen out of 16 physicians responded that their practice was within 5 miles of a delivery hospital. A majority of obstetrician-gynecologists (68.8%, n=11) reported that the predominant ethnic/racial background of their patient population was Caucasian, whereas, 31.3% (n=5) reported African American. *Screening Practices*

Physicians were asked whether they screen patients for PMD. A majority (87.5%, n=14) of respondents screen their patients for PMD. Screening was reported to be performed by all

qualified providers in a practice. These providers included medical doctors, registered nurses, licensed practical nurses and certified nurse midwives. All respondents reported screening for PMD at 6 weeks postpartum. However, 62.5% (n=10) of respondents indicated that they screen at more than one point during care. Figure 1 presents the number of years respondents have been screening for PMD. The majority (63%, n=10) of respondents have been screening patients for PMD for five years or less. Eleven (68.8%) obstetrician-gynecologists reported using screening and diagnostic tools to determine if a patient has PMD. All of them indicated that the Edinburgh Postnatal Depression Scale (EPDS) was the tool of choice. A majority (68.8%, n=11) of physicians reported that their practice did not educate patients about PMD.

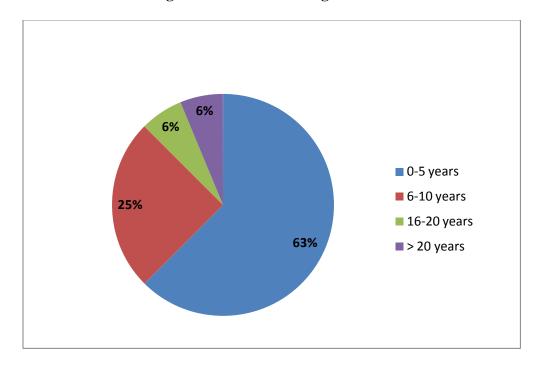


Figure 1. Years Screening for PMD

Treatment Practices

Respondents were asked whether they treat patients for PMD. A majority (68.8%, n=11) of obstetrician-gynecologists reported that they do not treat patients for PMD, whereas, 31.3% (n=5) reported that they do treat patients for PMD. Figure 2 shows respondents' practices of

treatment options such as prescribing antidepressant medications, recommending counseling and referring patients to outside mental health professionals. Respondents could choose from five responses: always, often, sometimes, never or not applicable (N/A) [response scale: 1 = always to 4 = never, N/A = 0]. Table 2 lists the mean scores and standard deviations of the respondents training practices. Overall, more obstetrician-gynecologists recommend counseling for patients with PMD. In addition, almost all (93.8%, n=15) respondents have an identified, reliable referral source for patients.

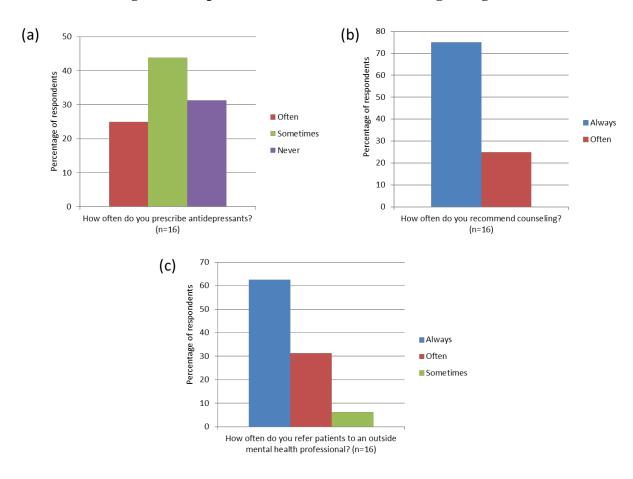


Figure 2. Respondents' Treatment Practices regarding PMD

(a) Prescribe antidepressants; (b) recommend counseling; (c) refer to an outside mental health professional.

Table 2. Scores of Respondents' Treatment Practices

Treatment options	Mean (SD)
How often do you prescribe antidepressants?	3.06 (0.77)
How often do your recommend counseling?	1.25 (0.45)
How often do you refer patients to an outside 1.44 (0.	
mental health professional?	1.11 (0.03)

Training and Resources

The majority of respondents felt they were not adequately trained to screen for (68.8%, n=11) or treat (87.5%, n=14) PMD. However, 31.3% (n=5) and 12.5 % (n=2) of respondents, respectively, felt opposite. Respondents were given the opportunity to provide the resources they felt were necessary to better screen for and treat PMD. The responses are listed in Table 3. Eighty-one percent (n=13) of respondents indicated that they spent an average of 1-10 hours in training to screen, diagnose and/or treat PMD, over the past year. Out of 15 respondents, 9 (60%) were somewhat satisfied with the training they received, whereas, 6 (37.5%) were somewhat dissatisfied. Less than half (43.8%) of the respondents indicated that their training occurred at a conference with a continuing medical education (CME) course.

Table 3. Resources Identified by Respondents as Necessary for Screening and Treating PMD

Resources to Screen	Resources to Treat
CME	CME
Articles	Articles
Compendium	Better understanding of available treatment
Knowledge of specific screening tool	modalities
Lectures	Knowledge of guidelines or algorithms for
More staff/personnel	treatment
More time	Lectures
	More continuity
	More staff
	Time
	Understanding of appropriate medication

Summary

The data presented herein provide a descriptive view of the screening and treatment practices for PMD among obstetrician-gynecologists. Overall, findings suggest that obstetrician-gynecologists do screen patients for PMD, in which most of the screening occurs during the 6 week postpartum visit. In terms of treatment, obstetrician-gynecologists are more likely to recommend counseling for patients with PMD than they are to treat the patients themselves. Finally, obstetrician-gynecologists feel inadequately trained to screen for and treat patients with PMD and believe resources, such as CME and more staff will better equip them in screening and treating PMD.

Chapter 5

Discussion

Introduction

This chapter presents a discussion of the major findings of the current study. A brief summary of the study, restating the problem of perinatal mood disorders (PMD) and the need for increased screening is discussed, along with the methodology used to investigate physician screening and treatment practices. Key findings about physician screening and treatment practices, as well as resources needed to enhance these practices are also highlighted.

Conclusions are then derived about the screening and treatment practices for PMD among obstetrician-gynecologists in relation to the study's research questions. Finally, the chapter concludes with a discussion of the implications of the study and recommendations for further study.

Summary of Study

Perinatal mood disorders encompass a variety of psychiatric disorders, ranging from anxiety and depression to psychosis. These disorders can have a devastating effect on families, especially children. Therefore, it is important to screen for these problems and provide treatment for patients. Obstetrician-gynecologists are increasingly being recognized as primary care physicians due to their role in women's health. This places them in a distinct position to screen for PMD and provide treatment for patients who identify as having PMD.

This study explored the screening and treatment practices for PMD among obstetriciangynecologists in Georgia in order to enhance the resources and training needed to better equip them with the knowledge and skills to adequately care for the mental health of women, particularly during the perinatal period. An anonymous, web-based survey was employed to assess physician screening and treatment practices regarding PMD. Obstetrician-gynecologists from several practices and medical school obstetric and gynecologic departments in Metropolitan Atlanta were given the opportunity to complete the survey. Response to the survey was low; however, the data collected provided preliminary results regarding the state of screening and treatment of PMD among obstetrician-gynecologists. A majority (87.5%, n=14) of respondents indicated that they screen patients for PMD, which occurs at 6 weeks postpartum. Overall, obstetrician-gynecologists reported that they do not treat PMD, yet, they recommend counseling for patients with PMD. When it comes to training, 68.8% (n=11) of respondents felt that they were not adequately trained to screen for PMD and 87.5% (n=14) felt that they were not adequately trained to treat PMD. In addition, respondents identified resources, like CME, that they felt were necessary for better screening and treatment practices. These findings are informative, yet further assessment with a larger sample is needed to improve reliability and validity of the results.

Conclusion

Screening Practices

The assessment of screening practices for PMD among obstetrician-gynecologists in the current study showed that obstetrician-gynecologists do screen patients for PMD. In addition, this screening always occurred at 6 weeks postpartum, even though respondents reported screening at other time points during the perinatal period. Though the study sample size was small (n=16) and selection of the sample did not allow generalizability, these findings provide preliminary insight into the discovery, diagnosis and treatment of PMD. Schmidt and colleagues (1997) were one of the first groups to report that obstetrician-gynecologists diagnose and treat

depression in women. However, they did not assess at what time point diagnosis and treatment are likely to occur. In fact, few studies have assessed the time point at which physicians screen and treat depression in women. This could be due to the fact that most studies have focused on postpartum psychiatric disorders, such as depression, which includes the period of time after the birth of a child. This study revealed interesting findings; however, definitive conclusions cannot be drawn due to the insufficient sample size.

Treatment Practices

When evaluating treatment practices, the findings of this study indicated that obstetriciangynecologists do not treat PMD in patients. In fact, physicians are more likely to recommend
patients for counseling than they are to prescribe antidepressants or refer patients to outside
mental health professionals. Recommending counseling and referring to outside mental health
professionals are somewhat synonymous, therefore, it is likely that further investigation may
show that these treatment options are nearly even. Interestingly, nearly all respondents to the
current study reported that they have an identified, reliable referral source for patients in need of
treatment for PMD. This could be due to physicians' belief that they are not adequately trained
to provide treatment, which has been shown in previous studies (Leiferman et al., 2008;
LaRocco-Cockburn et al., 2003; Coleman et al., 2008; Leddy et al., 2011). This will be discussed
further in the next section.

Training and Resources

As previously mentioned, obstetrician-gynecologists in previous studies have indicated that they have not been adequately trained to screen or treat depression in patients. The preliminary findings of this study found that respondents reported that they felt inadequately

trained to screen for (68.8%) and treat (87.5%) patients with PMD. These values seem high, and are likely due to the small survey sample.

Resources and training are necessary to improve the screening and treatment practices of obstetrician-gynecologists. The respondents to this study were given the opportunity to list the resources they felt necessary for better screening and treatment practices through open-ended questions on the survey instrument. A complete list of the resources is provided in Table 3. A few of the most common resources identified to better screen and treat PMD included: CME, articles, knowledge of specific screening tool, better understanding of available treatment modalities, more staff and time.

Implications

Though the outcomes of this study are preliminary, a few broad implications can be made. The role of an obstetrician-gynecologist is more than that of a specialist. As the primary care provider for the health of women, obstetrician-gynecologists deserve adequate training and resources to prepare them to address the mental health of women, especially during the perinatal period. The responses from the obstetrician-gynecologists in this study demonstrate that more training is not only needed but also wanted. More training may result in better screening practices to identify PMD in women that would usually go unrecognized. In addition, more training may equip physicians to make better treatment options for their patients.

Recommendations

The findings from this study were generated from a dataset of 16 responses. Therefore, the main recommendation is to continue the study. This will allow for more data to be collected in order to make more definitive conclusions about physician screening and treatment practices regarding PMD in Georgia. However, it will be necessary to incorporate several changes to

strengthen the study. First, it is imperative to obtain 'buy-in' or support from physicians, practices and organizations whose participation in the study is needed. This support will likely result in greater participation in the study survey. For example, an important organization from which to gain support is the Georgia Obstetrical and Gynecological Society, Incorporated (GOGS). The GOGS is composed of more than 900 obstetricians-gynecologists and related subspecialists located throughout the entire state of Georgia. Support from GOGS could provide access to a diverse population of obstetrician-gynecologists, including those practicing in rural areas as well as urban areas. In addition, this could increase the generalizability of the results.

Next, it is beneficial to pilot test the study survey in order to identify any issues and unexpected question interpretations. It will also allow accurate assessment of the amount of time needed to complete the survey. Furthermore, pilot testing is likely to decrease the number of skipped questions or incomplete surveys. Another option is to collect survey data by completion of a paper-based version of the survey instrument. Paper surveys could be disseminated at conferences and CME events sponsored by organizations like GOGS which would likely reach more physicians at one time; thereby, increasing the number of responses to the survey.

Finally, it is important to submit the study for review by IRB. A brief protocol for the current study was submitted to Emory IRB for non-Human Subject Research determination. It was determined that IRB review was not necessary because the study did not fit the definition of human subject research, which means, in this case, that there would not be access to identifiable private information. Submitting for IRB review not only protects the participants but it provides the principal investigator with a certain amount of control that could benefit the study. For instance, access to email list serves is important for this study in order to provide the principal

investigator with more control over dissemination of the survey instrument. Participants still reserve the right to withdraw their participation at any time.

Summary

This study provided a preliminary assessment of the screening and treatment practices for PMD among obstetrician-gynecologists in Georgia. The results generated from an online anonymous survey provided an initial look at physician screening and treatment practices. However, low survey response and the convenience sampling of participants reduced the reliability and validity of the results. Further research is needed to draw any conclusive information regarding how obstetrician-gynecologists in Georgia screen and treat patients with PMD.

References

- Apter, G., Devouche, E., & Gratier, M. (2011). Perinatal mental health. *Journal of Nervous and Mental Disease*, 199, 575-577.
- Austin, M.-P. (2004). Antenatal screening and early intervention for "perinatal" distress, depression and anxiety: where to from here? *Archives of Women's Mental Health*, 7, 1–6.
- Brugha, T., Sharp, H., Cooper, S., Weisender, C., Britto, D., Shinkwin, R., Sherrif, T., & Kirwan, P. (1998). The Leicester 500 Project: Social support and the development of postnatal depressive symptoms: a prospective cohort survey. *Psychological Medicine*, 28, 63–79.
- Buekens, P., van Heeringen, K., Boutsen, M., Smekens, P., & Mattellaer, P. (1998). Depressive symptoms are often unrecognized in gynaecological practice. *European Journal of Obstetrics & Gynecology and Reproductive Biology*, 81, 43–45.
- Burke, K., Burke, J., Rae, D., & Regier, D. (1991). Comparing age at onset of major depression and other psychiatric disorders by birth cohorts in five US community populations. *Archives of General Psychiatry*, 48(9), 789-95.
- Coleman, V., Carter, M., Morgan, M., & Schulkin, J. (2008). Obstetrician-gynecologists' screening patterns for anxiety during pregnancy. *Depression & Anxiety*, 25, 114-123.
- Dietrich, A., Williams, J., Ciotti, M., Schulkin, J., Stotland, N., Rost, K., Baram, D., & Cornell, J. (2003). Depression care attitudes and practices of newer obstetrician-gynecologists: a national survey. *American Journal of Obstetrics & Gynecology*, 189, 267-273.
- Dietz, P., Williams, S., Callaghan, W., Bachman, D., Whitlock, E., & Hornbrook, M. (2007). Clinically identified maternal depression before, during, and after pregnancies ending in live births. *American Journal of Psychiatry*, *164*, 1515-1520.
- Earls, M., and the Committee on Psychosocial Aspects of Child and Family Health. (2010). Clinical Report—Incorporating Recognition and Management of Perinatal and Postpartum Depression Into Pediatric Practice. *Pediatrics*, 126, 1032–1039.
- Gavin, N., Gaynes, B., Lohr, K., Meltzer-Brody, S., Gartlehner, G., & Swinson, T. (2005). Perinatal depression: a systematic review of prevalence and incidence. *Obstetrics & Gynecology*, *106*(5 Pt 1), 1071-1083.
- Gaynes, B., Gavin, N., Meltzer-Brody, S., Lohr, K., Swinson, T., Gartlehner, G., Brody, S., & Miller, W. (2005). Perinatal depression: prevalence, screening accuracy, and screening outcomes. *Summary, Evidence Report/Technology Assessment*. Number 119. AHRQ

- Publication Number 05-E06-1. Agency for Healthcare Research and Quality, Rockville, MD.
- Joseph, G. (2009). Transitions. Obstetrics & Gynecology, 114, 4-6.
- Kessler, R.C. (2003). Epidemiology of women and depression. *Journal of Affective Disorders*, 74, 5–13.
- LaRocco-Cockburn, A., Melville, J., Bell, M., & Katon, W. (2003). Depression screening attitudes and practices among obstetrician-gynecologists. *Obstetrics & Gynecology*, 101, 892-898.
- Leddy, M., Haaga, D., Gray, J., & Schulkin, J. (2011). Postpartum mental health screening and diagnosis by obstetrician-gynecologists. *Journal of Psychosomatic Obstetrics & Gynecology*, 32(1), 27-34.
- Leiferman, J., Dauber, S., Heisler, K., & Paulson, J. (2008). Primary care physicians' beliefs and practices toward maternal depression. *Journal of Women's Health*, 17(7), 1143-1150.
- Misri, S. & Kendrick, K. (2007). Treatment of perinatal mood and anxiety disorders: a review. *Canadian Journal of Psychiatry*, *52*, 489-498.
- Palladino, C., Fedock, G., Forman, J., Davis, M., Henshaw, E., & Flynn, H. (2011). OB CARES-The obstetric clinics and resources study: providers' perceptions of addressing perinatal depression-a qualitative study. *General Hospital Psychiatry*, 33, 267-278.
- Patient Protection & Affordable Care Act of 2010, H.R. 3590, 111th Congress, 2009-2010 Session (2010).
- Postpartum Depression and Information Law, Minnesota S.F. 2278, Article 1, Section 33; 84th Minnesota Legislative Session 2005-2006 (2006).
- Postpartum Depression Law, New Jersey S. 213, (2006).
- Postpartum Support International. (2009). Perinatal Mood and Anxiety Disorders Fact Sheet. Retrieved June 8, 2012 from http://postpartum.net/News-and-Events/Online-Press-Kit.aspx
- Price, S., & Proctor, E. (2009). A rural perspective on perinatal depression: prevalence, correlates, and implications for help-seeking among low-income women. *The Journal of Rural Health*, 25(2):158-166.
- Robertson, E., Grace, S., Wallington, T., & Stewart, D. (2004). Antenatal risk factors for postpartum depression: a synthesis of recent literature. *General Hospital Psychiatry*, 26, 289-95.

- Robins, L. & Regier, D. (1991). Psychiatric Disorders in America. New York: Free Press.
- Schmidt, L., Greenberg, B., Holzman, G., & Schulkin, J. (1997). Treatment of depression by obstetrician-gynecologists: a survey study. *Obstetrics & Gynecology*, *90*, 296-300.
- Statewide Workgroup Bill, H.B. 2666, 75th Oregan Legislative Assembly, 2009 Regular Session (2009).
- Teixeira, J., Fisk, N., & Glover, V. (1999). Association between maternal anxiety in pregnancy and increased uterine artery resistance index: cohort based study. *British Medical Journal*, 318(7177), 153-157.
- U.S. Preventive Services Task Force. (2002). Screening for depression: recommendations and rationale. *Annals of Internal Medicine*, *136*, 760-764.
- Yonkers, K., Smith, M., Lin, H., Howell, H., Shao, L., & Rosenheck, R. (2009). Depression screening of perinatal women: an evaluation of the healthy start depression initiative. *Psychiatric Services*, 60, 322-328.
- Zuckerman, B., Bauchner, H., Parker, S., & Cabral, H. (1990). Maternal depressive symptoms during pregnancy and newbom irritability. *Journal of Developmental & Behavioral Pediatrics*, 11(4), 190-194.

Appendix A: Emory IRB Determination Letter



Institutional Review Board

May 9, 2012

RE: Determination: No IRB Review Required
Title: Physician Assessment of Screening Practices and Treatment of Perinatal Mood Disorders

PI: Shalonda Freeman

Dear Ms. Freeman:

Thank you for requesting a determination from our office about the above-referenced project. Based on our review of the materials you provided, we have determined that it does not require IRB review because it does not meet the definition(s) of "human subject research" or the definition of "clinical investigation" as set forth in Emory policies and procedures and federal rules, if applicable. Specifically, in this project, you will be conducting an anonymous survey.

This determination could be affected by substantive changes in the study design, subject populations, or identifiability of data. If the project changes in any substantive way, please contact our office for clarification.

Thank you for consulting the IRB.

Sincerely,

Andrea Goosen, MPH Research Protocol Analyst This letter has been digitally signed

Appendix B: Physician Screening and Treatment Practices for PMD Survey

Physician Assessment of Scree	ning Practices and Treatment of Perinatal Mood Disorders		Exit this survey
Introduction and Instructions			
		11%	

The purpose of this survey is to learn about screening and treatment practices for Perinatal Mood Disorders (PMD) among physicians in Georgia. We hope to understand your needs regarding screening and treating PMD, as well as needed resources for improving these practices. The information you provide will be used by a student at Rollins School of Public Health, Emory University to complete a graduate research thesis as partial fulfillment of a Master of Public Health degree. The survey is anonymous and your responses cannot be linked directly to you.

For each question, please mark the answer that best represents your response. There are 31 questions in the survey that should take 5-10 minutes to complete. Please respond by July 10, 2012. Thank you for your assistance.

Next

Powered by <u>SurveyMonkey</u>
Check out our <u>sample surveys</u> and create your own now!

Physician Assessment of Screening Practices and Treatment of Perinatal Mood Disorders	Exit this survey
Screening Practices	
22%	
1. Do you routinely screen patients for perinatal mood disorders (PMD)?	
O Yes	
○ No	
2. Who in your office does the screening? (Check all that apply.)	
□ MD	
□ RN	
LPN	
Other (please specify)	
3. When do you screen your obstetrics patients for PMD? (Check all that apply.)	
1st - 3rd trimester	
2 weeks postpartum	
4 weeks postpartum	
6 weeks postpartum	
4. Do you use any of the screening and diagnostic tools to determine if a patient has PMD?	
○ Yes	
○ No	
Prev Next	

Physician Assessment of Screening Practices and Treatment of Perinat	al Mood Di	sorders			Exit this survey
Screening Practices					
			3:	3%	
5. What screening and diagnostic tools do you use? (Check all that apply.)					
Edinburgh Postnatal Depression Scale (EPDS)					
Patient Health Questionnaire-9 (PHQ-9)					
Bromley Postnatal Depression Scale (BPDS)					
Postpartum Depression Screening Scale (PDSS)					
None					
Other					
Other (please specify)					
6. How many years have you been screening patients for PMD?					
O-5 years					
○ 6-10 years					
O 11-15 years					
O 16-20 years					
More than 20 years					
7. Does your practice educate patients about PMD?					
Yes					
○ No					
	Prev	Next			

Physician Assessment of Screening Practices and Treatment of Perinatal Mood Disorders 8. Who educates the patients about PMD in your office? (Check all that apply.) MD RN LPN Other (please specify) Prev Next

Physician Assessment of Screening Practices and Treatment of Perinatal Mood Disorders	Exit this survey
Treatment Practices	
5	56%
9. Do you treat your patients with PMD yourself?	
○ Yes	
○ No	
10. How often do you prescribe antidepressant medication for your patients with PMD?	
○ Always	
Often	
○ Sometimes	
○ Never	
○ N/A	
11. How often do you recommend counseling for your patients with PMD?	
○ Always	
Often	
○ Sometimes	
○ Never	
○ N/A	

2. How often do you refer your patients to an outside mental health professional		
○ Always		
○ Often		
Sometimes		
○ Never		
○ N/A		
3. Do you have an identified, reliable referral source for your patients?		
○ Yes		
○ No		
	Prev	Next

Physician Assessment of Screening Practices and Treatment of Perinatal Mood Disorders	Exit this survey
Training and Resources	
67%	
14. Do you feel that you are adequately trained to SCREEN patients for PMD?	
○ Yes	
○ No	
15. What resources do you feel you need to SCREEN patients more often for PMD?	
16. Do you feel that you are adequately trained to TREAT patients with PMD?	
○ Yes	
○ No	
17. What resources do you feel you need to better TREAT patients with PMD?	

18. Over the past year, how many hours, on average, did you spend in training to screen, diagnose and/o	r treat PMD?
1–10 hrs	
11–20 hrs	
21–30 hrs	
Over 30 hrs	
O Did not receive training	
19. Where did the training occur? (Check all that apply)	
Annual conference (CME)	
Internal Practice	
External Practice	
Other (please specify)	
20. How satisfied or dissatisfied were you with this training?	
Very satisfied	
Somewhat satisfied	
Somewhat dissatisfied	
Very dissatisfied	
Prev Next	

Physician Assessment of Screening Practices and Treatment of Perinatal Mood Disorders		Exit this survey
Demographic Information		
	78%	
21. What is your gender?		
○ Male		
○ Female		
22. What is your age?		
○ 18-29 years old		
○ 30-49 years old		
○ 50-64 years old		
○ 65 years and over		
23. What is your race?		
White/Caucasian		
○ Black/African American		
○ Asian		
Native Hawaiian/other Pacific Islander		
American Indian/Alaskan Native		
24. What is your ethnicity?		
○ Hispanic		
Not Hispanic		

25. How many years has it been since you completed residency or fellowship?		
O-5 years		
○ 6-10 years		
11-15 years		
○ 16-20 years		
More than 20 years		
26. How many physicians are in your practice?		
O 1-5		
O 6-10		
O 11-15		
27. Do you have any mid-level providers in your practice?		
○ Yes		
○ No		
	Prev	Next

Physician Assessment of Screening Practices and Treatment of Perinatal Mood Disorders 89% 28. What type of mid-level providers do you have? (Check all that apply) CNM ☐ NP ☐ PA Other (please specify) 29. Where is your practice located? City Suburb Rural 30. What is the distance (miles) to the nearest delivery hospital? 0-5 6-10 11-15 0 16-20 21-25

Exit this survey

31. What is the predominant ethinich	acial background of your patient population? (Check one)	
African American		
Caucasian		
Hispanic		
Asian		
Native Hawaiian/other Pacific Islander		
Native American		
	Prev Next	
Physician Assessment of Screeni	ning Practices and Treatment of Perinatal Mood Disorders	Exit this survey
Physician Assessment of Screeni End of Survey	ing Practices and Treatment of Perinatal Mood Disorders	Exit this survey
	ning Practices and Treatment of Perinatal Mood Disorders	Exit this survey
	100%	Exit this survey
End of Survey	100%	Exit this survey