



ELSEVIER

Contents lists available at ScienceDirect

Midwifery

journal homepage: www.elsevier.com/midw

Risk factors of transient and persistent anxiety during pregnancy

Hamideh Bayrampour, MSc (Midwifery), PhD (Post-Doctoral Fellow)^{a,*},
Sheila McDonald, PhD (Scientist)^b, Suzanne Tough, PhD (Health Scholar, Professor)^{a,c}

^a Department of Pediatrics, Faculty of Medicine, University of Calgary, Alberta Centre for Child, Family & Community Research – Child Development Centre, c/o 2888 Shaganappi Trail NW, Calgary, AB, Canada T3B 6A8

^b Maternal-Child Health, Research and Innovation, Population, Public, and Aboriginal Health, Alberta Health Services, Southport Atrium, # 2240, 10101 Southport Rd. SW, Calgary, AB, Canada T2W 3N2

^c Alberta Innovates Health Solutions, Canada

ARTICLE INFO

Article history:

Received 17 June 2014

Received in revised form

5 December 2014

Accepted 20 February 2015

Keywords:

Antenatal mental health

Risk factors

Chronic anxiety

Chronic depression

ABSTRACT

Purpose: chronic poor mental health over the course of pregnancy contributes to greater adverse maternal and child outcomes. Identifying women with chronic depressive or anxiety symptoms can provide opportunities to reduce distress and improve pregnancy outcomes. The objective of this study was to determine risk factors of chronic antenatal depressive and anxiety symptoms using a longitudinal pregnancy cohort in Alberta, Canada.

Methods: women with singleton pregnancies were included ($N=3021$). Anxiety and depressive symptoms were measured in the second and third trimesters using the Spielberger State-Trait Anxiety Inventory and the Edinburgh Postnatal Depression Scale, respectively. On the basis of the timing and persistence of symptoms, the following three mutually exclusive subgroups for each anxiety and depressive symptoms were created: never symptomatic, symptomatic only in the second trimester, and symptomatic at both time points. Separate logistic regression models were used to derive risk factors for each subgroup.

Findings: women with chronic anxiety or depressive symptoms were distinguished from those with transient symptoms or no symptoms by their optimism scores, in which less optimistic pregnant women had a four-fold increased risk for developing chronic depressive or anxiety symptoms compared with more optimistic women (AOR varied from 4.30 to 4.93). Additionally, high perceived stress, low social support, history of mental health issues were common predictors of chronic anxiety and depressive symptoms in pregnancy. Partner tension was the exclusive predictor of anxiety symptoms (AOR varied from 1.94 to 2.31) and poor physical health (AOR 2.54; 95% CI 1.32–4.89), unplanned pregnancy (AOR 3.05; 95% CI 1.61–5.79), and infertility treatments (AOR 4.98; 95% CI 1.85–13.39) were unique predictors of chronic depressive symptoms.

Conclusions: knowledge of the risk factors of chronic poor mental health during pregnancy might inform the development of effective strategies within the limited resources of health-care systems to target populations with greater needs for interventions.

© 2015 Elsevier Ltd. All rights reserved.

Introduction

Anxiety and depressive symptoms are common during pregnancy. Up to one-third of women may experience anxiety symptoms during pregnancy (Lee et al., 2007). The prevalence of depression varies from 7.4% in the first trimester, to 12.8% in the second semester, and 12.0% in the third trimester (Bennett et al.,

2004). The literature suggests that anxiety and depressive symptoms are not static across the perinatal period (Sutter-Dallay et al., 2012; Mora et al., 2009; Kuo et al., 2014) and symptoms for some women may be transitional and resolve over time, whereas these symptoms can persist in other women (Geller, 2004). Significant heterogeneity in the timing and persistence of perinatal depression has been reported and three distinct categories of women in regard to depressive symptoms have been identified: never symptomatic, chronically symptomatic, and only symptomatic at the antenatal or postpartum period (Sutter-Dallay et al., 2012; Mora et al., 2009). Similar evidence on antenatal anxiety is scarce with the exception of a recent study that reported

* Corresponding author.

E-mail addresses: hbayramp@ucalgary.ca (H. Bayrampour),
Sheila.McDonald@albertahealthservices.ca (S. McDonald),
Suzanne.Tough@albertahealthservices.ca (S. Tough).

<http://dx.doi.org/10.1016/j.midw.2015.02.009>

0266-6138/© 2015 Elsevier Ltd. All rights reserved.

trajectories of the severity of anxiety symptoms ranging from very low to very high among women undergoing caesarean childbirth (Kuo et al., 2014). The heterogeneity of anxiety symptoms has been noted in other populations (Nandi et al., 2009).

It is known that depression and anxiety can increase the risk of adverse pregnancy and child outcomes. The timing and duration of depressive and anxiety symptoms may be related to severity of adverse maternal and child health outcomes. For instance, in a longitudinal study, Chung et al. (2004) found that depressive symptomatology that persisted through the perinatal period was related to poor parenting practices (Chung et al., 2004). A link between antenatal anxiety and preterm birth, low birth weight (Littleton et al., 2007; Teixeira et al., 2009; O'Donnell et al., 2011), and postpartum depression (Ahluwalia et al., 2004; Heron et al., 2004; Skouteris et al., 2009) as well as the increased risk of delays in cognitive, behavioural, and psychomotor development and mental health problems in children (Buss et al., 2011; Davis and Sandman, 2012; Kingston et al., 2012; Loomans et al., 2012) has been reported. Alterations in hypothalamo-pituitary-adrenal cortical-axis activity, which is believed to play a role in forming the pathways of these adverse outcomes, have been shown to be related to chronic anxiety symptoms (Greaves-Lord et al., 2007). Roesch et al. (2004) found that pregnancy anxiety experienced at multiple time points over the course of pregnancy was associated with shorter gestation (Roesch et al., 2004).

Demographic and psychosocial characteristics of pregnant women suffering from chronic mental health symptoms might differ from others. In a study by Mora et al. (2009), chronically depressed women were more likely to be multiparous and have moderate or high stress levels compared with other women (Mora et al., 2009). Evidence on risk factors of chronic mental health symptoms during the antenatal period is limited. With a few exceptions, previous studies on risk factors of antenatal depression and anxiety are cross-sectional with a single assessment of symptoms and do not address chronicity of symptoms or variations related to pregnancy stages. Knowledge of the risk factors of chronic antenatal depressive and anxiety symptoms can inform screening strategies to identify the at-risk group of women with a high need for interventions. This information might also aid in the development of more refined models of mechanisms and causal pathways in which poor mental health leads to adverse outcomes. The aim of the current study was to identify the demographic, clinical, cognitive, and psychosocial predictors of transient and chronic depressive and anxiety symptoms in a community sample of pregnant women.

Materials and methods

Data for this study were obtained from the All Our Babies (AOB) cohort, an established longitudinal pregnancy cohort in Alberta, Canada, that has prospective questionnaire data on maternal mental health, health-care utilisation, birth outcomes, and postpartum experiences. Recruitment began in 2008 and ended in 2010. Information on recruitment, data collection, and questionnaires for the AOB study has been described in detail elsewhere (Gracie et al., 2010; McDonald et al., 2013). Data collection included repeat assessments using validated questionnaires and investigator/stakeholder questions. Participants completed three questionnaires, twice during pregnancy (<25 weeks and 34–36 weeks gestation) and once during the postpartum period (four months), and provided consent to link to their medical records. The cohort has been followed annually at 12, 24, and 36 months post partum. Cohort retention is greater than 80%. The study was approved by the Conjoint Health Research Ethics Board of the University of Calgary. Participants provided informed consent

at the time of recruitment and were provided copies for their records.

Study variables

Women with singleton pregnancies were included ($N=3021$). Anxiety was defined as scoring above the established cut-off of 40 on the state anxiety subscale of the Spielberger State Trait Anxiety Inventory (Spielberger and Gorsuch, 1983). The State Anxiety Inventory consists of 20 items rated on a 4-point Likert scale from 1 (not at all) to 4 (very much so). This scale has been validated against clinical interviews during both the pregnancy and postpartum period and has been found to have acceptable sensitivity, specificity, and predictive values to determine cases of anxiety among a perinatal population (Grant et al., 2008; Meades and Ayers, 2011). Three mutually exclusive subgroups of anxiety were created based on the timing and persistence of symptoms: never symptomatic, symptomatic exclusively in the second trimester (<24 weeks), and symptomatic at both time points. Chronic anxiety was defined as persistently high levels of anxiety symptoms during both the second and third trimesters, whereas transient anxiety was defined as anxiety symptoms exclusively during the second trimester.

Depression was measured by the Edinburgh Postnatal Depression Scale (EPDS), a 10-item self-report questionnaire. The scale has high reliability with an internal consistency of .87 (Cox et al., 1987). The EPDS has been validated for use in the antenatal period (Murray and Cox, 1990). A score greater than or equal to 13 has been recommended to identify women with symptoms of major depression (Gaynes et al., 2005). Similar to anxiety, the following three mutually exclusive subgroups of depression were created: never symptomatic, symptomatic exclusively in the second trimester (transient depression), and symptomatic at both time points (chronic depression).

Variables that were considered potential predictors of antenatal depression and anxiety were selected according to the literature and through discussion with perinatal mental health professionals. Variables were grouped into the following domains: demographics (maternal age, marital status, education level, household income level, ethnicity, and time living in Canada), obstetrical and physical health status (gravidity, parity, pre-pregnancy BMI, reproductive history, timing of pregnancy, mode of conception, pre-existing chronic conditions, and physical health status), psychosocial (history of substance or alcohol abuse, history of abuse/neglect, history of mental health issues, partner tension, and social support in pregnancy), optimism as a cognitive variable, and perceived stress.

Physical health status, social support, and perceived stress variables were measured in the second trimester. Physical health status was measured using the 12-item Short-Form Health Survey (SF-12v2), a shorter version of the SF-36v2 that covers the same eight health domains. This scale evaluates functional health and well-being from the patient's perspective and has two components: physical health (PCS) and mental health (MCS) functioning (Ware et al., 1996). The SF-12v2 has satisfactory validity and reliability, with Cronbach's alphas of .88 for the physical component summary and .82 for the mental component summary (Cheak-Zamora et al., 2009). In the present study, a score below the 20th percentile on the SF-12v2 physical component summary was defined as a poor health status during pregnancy.

The Medical Outcomes Study (MOS) Social Support Scale is a 19-item self-report scale that measures four dimensions of social support: emotional/informational, tangible, affectionate, and positive social interaction (Sherbourne and Stewart, 1991). For each item, participants are asked to indicate how often each type of support was available to them if needed by choosing one of five

Download English Version:

<https://daneshyari.com/en/article/10515555>

Download Persian Version:

<https://daneshyari.com/article/10515555>

[Daneshyari.com](https://daneshyari.com)