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# Psychiatric Disorders in Pregnant and Postpartum Women in the United States

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## Abstract

**CONTEXT—**Psychiatric disorders and substance use during pregnancy are associated with adverse outcomes for mothers and their offspring. Information about the epidemiology of psychiatric disorders and substance use in this population is lacking.

**OBJECTIVE—**To examine sociodemographic correlates, rates of DSM-IV Axis I psychiatric disorders, substance use and treatment-seeking among past-year pregnant and postpartum women in the United States.

**DESIGN, SETTING, AND PARTICIPANTS—**Face-to-face interviews were conducted in the 2001–2002 National Epidemiologic Survey on Alcohol and Related Conditions (n = 43,093).

**MAIN OUTCOME MEASURES—**Prevalence of 12-month DSM-IV Axis I psychiatric disorders, substance use, and treatment seeking.

**RESULTS—**There were no significant differences in the 12-month prevalence of psychiatric disorders between past-year pregnant (25.3%), postpartum women (27.5%), and non-pregnant women of child-bearing age (30.1%), except for the significantly higher prevalence of major depressive disorder in postpartum women (9.3%) than in non-pregnant women (8.1%) (OR 1.59, 95% CI=1.15–2.20). Past-year pregnant and postpartum women had significantly lower rates of alcohol use disorders, and any substance use, except illicit drug use, than non-pregnant women. Age, marital status, health status, stressful life events, and history of traumatic experiences were all significantly associated with higher risk of psychopathology in pregnant and postpartum women. Most women with a current psychiatric disorder did not receive any mental health care in the 12-months prior to the survey regardless of pregnancy status.

**CONCLUSIONS—**Pregnancy per se is not associated with increased risk of mental disorders, though the risk of major depressive disorder may be increased during the postpartum period. Young, unmarried women with recent stressful life events, complicated pregnancies, and poor overall health were at significantly increased risk of mental disorders during pregnancy. Low rates of maternal

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mental health care underscore the need to improve recognition and delivery of treatment for mental disorders occurring during pregnancy and the postpartum.

Pregnancy and the postpartum period are widely considered periods of increased vulnerability to psychiatric disorders.[1–12] Psychiatric disorders during pregnancy are associated with poor maternal health[13–19] and inadequate prenatal care.[20–22] Maternal psychiatric disorders during pregnancy and the postpartum period are also associated with numerous adverse outcomes for the offspring, including maladaptive fetal growth and development,[22–36] poor cognitive development and behavior during childhood and adolescence,[23–32] and negative nutritional and health effects.[13, 33–38] For these reasons, accurate information about the mental health status of women during pregnancy and the postpartum period is urgently needed.

Most of what is known about psychiatric problems among pregnant women comes from findings among clinical samples, often without non-pregnant control groups. In these samples, the prevalence of psychiatric disorders ranges from 15% to 29%.[15, 20–22, 39–47] Risk factors identified in these studies include lack of romantic partner, prior history of psychiatric disorder, and lifetime exposure to traumatic events. [22, 41, 42, 45, 48–50] Only 5% to 14% of women received treatment for the psychiatric disorder.[15, 40, 41] However, no previous study used sampling methodology permitting accurate estimation of the prevalence of psychiatric disorders among pregnant women in the United States. Further, no previous study included non-pregnant women of comparable age drawn from the general population in order to identify the specific contribution of pregnancy or the postpartum period to the risk of psychiatric disorders. Many studies were limited by use of screening scales rather than diagnostic measures for DSM-IV criteria. Finally, prior studies assessed only mood and anxiety disorders rather than a broader range of psychopathology.

As the result of these gaps in research on mental disorders during pregnancy and the postpartum period, accurate national information on the mental health of pregnant women is lacking. Such information is needed for focused planning at the national and local level, and to inform the development of prevention and intervention programs. The current study addresses these critical gaps in knowledge. In a nationally representative sample of pregnant women, we present 12-month prevalence of DSM-IV psychiatric disorders, compare these with the prevalence of psychiatric disorders in non-pregnant women of childbearing age, identify risk factors for such disorders, and provide estimates of lifetime and 12-month rates of treatment-seeking among pregnant and non-pregnant women with DSM-IV psychiatric disorders.

## METHODS

### Sample

The 2001–2002 National Epidemiologic Survey on Alcohol andRelated Conditions (NESARC) is a nationally representative sample of the adult population of the United States conducted by the US Census Bureau, which administered face to face interviews under the direction of the National Institute of Alcoholism and Alcohol Abuse (NIAAA), as described in detail elsewhere.[51] The NESARC target population was the civilian, non-institutionalized population, 18 years and older, residing in households in the 50 states and the District of Columbia. This included persons living in households and the following noninstitutional group quarters: boarding houses, rooming houses, nontransient hotels and motels, shelters, facilities for housing workers, college quarters, and group homes. The final sample included 43,093 respondents drawn from individual households and group quarters. African Americans, Latinos, and young adults (aged 18 to 24 years) were oversampled. Data were adjusted to account for oversampling and respondent and household response. The overall survey response rate consists of three parts. The household response rate was 89%. Household nonresponse occurred when no interview was obtained from the household and a sample person was never

selected. The person response rate was 93%. Person nonresponse occurred when a sample person was selected by was not interviewed. NESARC estimates were adjusted at the household and person level to account for nonresponse from refusals, absences, and unlocated housing units. The sample frame response rate was 99%. The overall response rate in NESARC (81%) is derived by multiplying the NESARC household response rate (89%) by the NESARC person response rate (93%) and the sample frame response rate (99%). The weighted data were then adjusted using the 2000 Decennial Census, to be representative of the US civilian population for a variety of sociodemographic variables.

Women in the NESARC were asked if they were pregnant at the time of the interview, and whether they had been pregnant at any point in the prior 12 months.[51] There were 14,895 women of child-bearing age (18 to 50 years) in the NESARC sample. Of these, 346 did not know their past-year pregnancy status and were removed from the analysis. Another 1,524 women were pregnant at the time of the survey or had been pregnant in the prior 12 months (referred to below as “past-year pregnant women”). Of these, 453 were pregnant at the time of the survey (“currently pregnant”), five did not know their current pregnancy status (but were pregnant in the past year), and 1,066 were pregnant during the prior 12 months but not at the time of the interview. Of these 1,066 women, 72 reported currently having no children. For analyses of postpartum women, these 72 were removed, leaving a total sample of 994 “postpartum women”. All remaining women in the NESARC aged 18–50 were included in the “non-pregnant women” group (n=13,025).

All potential NESARC respondents were informed in writing about the nature of the survey, the statistical uses of the survey data, the voluntary aspect of their participation, and the federal laws that rigorously provided for the strict confidentiality of the identifiable survey information. Those respondents consenting to participate after receiving this information were interviewed. The research protocol, including informed consent procedures, received full ethical review and approval from the U.S. Census Bureau and the U.S. Office of Management and Budget.

## Interviewer Training

Interviews were conducted by approximately 1,800 professional lay interviewers from the US Census Bureau. On average, the interviewers had 5 years of survey administration experience working on census and other health-related national surveys. Training was standardized under the direction of NIAAA. All interviewers completed a 5-day self-study course followed by a 5-day in person training session at one of the US Census Bureau’s regional offices. For quality control purposes and to verify the accuracy of the interviewers’ performance, 2,657 respondents were readministered 1 to 3 sections of the NESARC interview to verify answers. These interviews also formed the basis of a test-retest reliability study of wave 1 NESARC measures.[52]

## Diagnostic Assessment

Sociodemographic measures included age, sex, race-ethnicity, nativity, marital status, place of residence, and region of the country. Socioeconomic measures included education, personal annual income, and insurance type. To be consistent with previous research, women were categorized as being above or below 25 years of age.

All diagnoses, except psychotic disorder, were made according to the DSM-IV criteria using the NIAAA Alcohol Use Disorder and Associated Disabilities Interview Schedule-DSM IV Version (AUDADIS-IV),[53] a valid and reliable fully structured diagnostic interview designed for use by professional interviewers who are not clinicians. Axis I diagnoses included in the AUDADIS-IV can be separated into three groups: 1) Substance Use Disorders (including any

alcohol abuse/dependence, any drug abuse/dependence, and any nicotine dependence); 2) Mood disorders (including major depressive disorder, dysthymia, and bipolar disorder); and 3) Anxiety disorders (including panic disorder, social anxiety disorder, specific phobia, and generalized anxiety disorder). The test-test reliability and validity of AUDADIS-IV measures of DSM-IV disorders has been reported elsewhere.[52, 54–58] Due to concerns about validity of psychotic diagnoses in general population surveys as well as length of the interview, possible psychotic disorders were indicated by asking the respondent if she was ever told by a doctor or other health professional that she had schizophrenia or a psychotic disorder.

We also included variables measuring any substance use, any alcohol use, and any tobacco use in the last 12-months. The reliability of the alcohol consumption and drug use measures have been documented elsewhere.[52] The number of stressful life events was measured with 12 items from the Social Readjustment Rating Scale[59] e.g., fired from a job, forced to move. Additional questions queried pregnancy complications (e.g., did you experience/have you experienced any complications with your pregnancy?), parity, and overall health status (e.g. in general, would you say your health is excellent, very good, fair or poor?). Also, respondents were classified as having history of trauma and victimization in the past 12 months if they had personally been the victim of a crime or attempted crime, such as having been beaten up, mugged or attacked by a stranger or someone they knew, been hit, threatened, or forced to have sex.

To estimate rates of mental health service utilization, respondents with psychiatric disorders were classified as receiving treatment if they sought help from a counselor, therapist, doctor, or psychologist, or from an emergency room, if they were hospitalized for psychiatric reasons at least one night, or if they were prescribed medications. Treatment utilization questions were disorder-specific. Analyses were conducted on those who were diagnosed with the disorder of interest in the time frame under consideration. For instance, prevalence of past-year treatment-seeking for a mood disorder is calculated among those with a past-year diagnosis of a mood disorder using treatment utilization questions specifically asked about treatment for a mood disorder.

## Statistical analyses

Weighted cross-tabulations were used to calculate prevalence rates for each study group. A series of logistic regression analyses yielded odds ratios, indicating associations between pregnancy status and (1) sociodemographic characteristics; (2) each specific 12-month psychiatric disorder; and (3) 12-month and lifetime mental health service utilization. In these 3 sets of analyses, non-pregnant women served as the referent group. The logistic regression analyses of the association between pregnancy status and each 12-month psychiatric disorder is presented without adjustment, and also adjusted for sociodemographic characteristics, previous history of that disorder (occurring prior to the past 12 months), overall health and number of stressful life events. Lastly, a series of logistic regression analyses yielded odds ratios indicating associations between sociodemographic characteristics and any 12-month psychiatric disorder among pregnant women, using pregnant women without any 12-month psychiatric disorder as the referent group. Standard errors and 95% confidence limits for all analyses were estimated using SUDAAN,[60] statistical software that adjusts for the design characteristics of the survey.

To guard against the possibility of variations in the results due to different definitions of the sample of interest, identical analyses were conducted separately for the three different samples “past-year pregnant women”, “currently pregnant women” and “postpartum women” (using the same non-pregnant group as the reference group in all analyses for the three samples). We present the analyses conducted on the largest group (“past-year pregnant women”) and indicate the main differences with the analyses of the other two samples (“currently pregnant women”

and "postpartum women). Full results of the analysis of the "currently pregnant women" sample are available as supplementary material (attached).

# RESULTS

## Sociodemographic Characteristics

The distributions of sociodemographic characteristics by pregnancy status are shown in Table 1. Compared with non-pregnant women, past-year pregnant women were more likely to be Hispanic, Black, or Asian, to be foreign born, to be between the ages of 18 and 25, and to have public insurance. In addition, past-year pregnant women were also more likely than non-pregnant women to have a higher number of stressful life events, and to report good to excellent overall health. Conversely, past-year pregnant women were significantly less likely than non-pregnant women to be widowed/separated/divorced or never married, to have more than high school education, to have earned $20,000 or more in the last year, and to be nulliparous.

## Rates of Axis I DSM-IV disorders

Twelve-month rates of specific DSM-IV psychiatric disorders by pregnancy status are shown in Table 2. Twelve-month prevalence of psychiatric disorders ranged from 0.4% (any psychotic disorders) to 14.6% (any substance use disorder) in past-year pregnant women and from 0.3% to 19.9% for the same diagnoses in non-pregnant women. Adjusted ORs were significantly lower for any substance use disorder, including alcohol and drug use disorders and nicotine dependence, and any psychiatric diagnosis among past-year pregnant women compared with non-pregnant women. Past-year pregnant women also had lower rates of any alcohol use and any tobacco use, but not any illicit drug use.

## Sociodemographic predictors of psychiatric disorders among past-year pregnant women

Table 3 shows percent distributions and ORs for sociodemographic characteristics for past-year pregnant women with and without any 12-month DSM-IV psychiatric disorders. Past-year pregnant women with any 12-month psychiatric disorder were significantly more likely than past-year pregnant women without psychiatric disorders to be 18–25 years old, to be never married or widowed/separated/divorced, and more likely to report pregnancy complications, current stressful life events, break up of a romantic relationship, and history of trauma/victimization within the last 12 months. Further, compared with past-year pregnant women without psychiatric disorders, past-year pregnant women with psychiatric disorders were significantly less likely to report good to excellent overall health.

## Mental health service utilization among past-year pregnant and non-pregnant women

The odds of past-year treatment seeking for mood disorders among women with a past-year diagnosis of a mood disorder were significantly lower in past-year pregnant women compared to non-pregnant women (Table 4).

## Analyses of "Currently Pregnant Women" and "Postpartum Women"

Although there were some minor differences between identical analyses of "past year pregnant women" and those conducted when restricting the sample to "postpartum women" (see Tables 1–4) or "currently pregnant women" (see Supplementary Material), the overall pattern of results remained the same. Most changes involved changes in the level of significance of the findings. An important exception was that the prevalence of major depressive disorder, which was not different between past-year pregnant and non-pregnant women, but was significantly higher in postpartum women when considering the adjusted ORs.

## COMMENT

This is the first study to examine the prevalence and correlates of mental disorders and mental health treatment-seeking in a nationally representative sample of pregnant and postpartum women. We highlight four major results: (1) although rates of Axis I psychiatric disorders, including substance use, mood and anxiety disorders, are high in women of childbearing age regardless of pregnancy status, pregnancy *per se* is not associated with an increased risk of new onset or recurrence of mental disorders, and is associated with lower rates of substance use, except illicit drug use, and substance use disorders; (2) the risk of major depressive disorder may be increased during the postpartum period; (3) younger age, not being married, exposure to traumatic or stressful life events in last 12 months, pregnancy complications, and overall poor health increase the risk of mental disorders in past-year pregnant women; and 4) treatment rates among pregnant women with psychiatric disorders are very low.

Although high rates of psychopathology have been reported in clinical samples of pregnant and postpartum women,[40, 41, 61–64] the specific contribution of pregnancy to the prevalence of psychiatric disorders in women of childbearing age had not been previously examined. In our study, the overall 12-month rate of psychiatric disorders in pregnant and postpartum women was high, but no differences were found in the overall prevalence of psychiatric disorders between past-year pregnant and postpartum and non-pregnant women, except for the prevalence of substance use disorders, which was lower in past year pregnant and postpartum women than in non-pregnant women of childbearing age. Our results are in accord with most[3, 5, 7, 8, 44, 65], although not all,[47] studies derived from clinical samples, but are important because they extend them to the general population. Clinical studies have suggested that trimester of pregnancy affects the rates of psychiatric symptoms, with exacerbation of symptoms in the first two trimesters of pregnancy, and attenuation of symptoms in the third.[80] The NESARC did not collect data on month of pregnancy at interview. Including only women during their first, second or third trimester of pregnancy, might have resulted in higher or lower estimates, according to trimester, of the prevalence of mental disorders among pregnant women than the ones reported here. Our results on all pregnant women, regardless of trimester, provide a more accurate overall estimate of the prevalence of psychiatric disorders during this entire critical period. Nevertheless, the high prevalence of psychiatric disorders in pregnant women stresses the need for continued work to identify the causes and develop effective treatments for mental disorders among pregnant and postpartum women.

Past-year pregnant and postpartum women were significantly less likely than non-pregnant women to use any substance, except illicit drugs, which were slightly but not significantly less likely to be used among past-year pregnant and postpartum women. Data from the 2006 National Survey on Drug Use and Health (NSDUH) reports significantly lower rates of substance use, including illicit drugs, among pregnant women compared to non-pregnant women.[66] However, rates of substance use by pregnant women overall in the NSDUH were lower than the rates reported in our sample. This discrepancy may be due to differences between the NSDUH and our study in the alcohol consumption and substance use measures and the timeframe for reporting use of these substances (30 days in the NSDUH and last 12 months in the NESARC). Moreover, the test-test reliability and validity of the NSDUH alcohol consumption and drug use measures have not been reported, so differences in psychometric properties of the measures in the two surveys could also contribute to a difference in results. Nonetheless, substance use by pregnant women is a leading preventable cause of mental, physical, and psychological problems in infants and children.[13, 14, 37, 38, 39] Special focus should be given to developing effective screening and intervention efforts to assist pregnant and postpartum women to reduce substance abuse, and to evaluating the effectiveness of current treatment programs and barriers to treatment for pregnant substance users.

Although the overall prevalence of psychiatric disorders appears to be similar among currently pregnant, postpartum women and non-pregnant women, an important exception was the elevated risk of major depressive disorder during the postpartum period. Biological (e.g., hormonal) as well as psychological and social role changes associated with childbirth may increase the risk of major depressive disorder during postpartum. Furthermore, women with psychiatric illness who become pregnant may discontinue their psychiatric medication for fear of prenatal exposure to these agents, therefore increasing the risk of depressive relapse during pregnancy or the puerperium.[64] Our finding is consistent with most previous studies,[2–5, 9] although a lack of increase in prevalence in major depressive disorder during this period has also been reported.[7, 8] Past negative results may have been due to differences in the diagnostic criteria, the timing of the assessments, limited sample sizes, or use of convenience, rather than population-based, samples. Our findings underscore the need for systematic screening and treatment of postpartum women to ensure their health and the health of their offspring.

Risk factors for psychiatric disorders and substance use among pregnant women are consistent with those identified in the general population[67–74] and clinical simples of pregnant women.[22, 41, 42, 45, 49, 50, 66, 75] The odds of psychiatric morbidity were greater among women who are younger (ages 18–25); widowed, separated or divorced; reported recent loss of a romantic relationship, trauma, or victimization; among those with more stressful life events; and among those with poor or fair overall health. Our study extends previous findings by documenting that pregnancy complications are also associated with significantly higher risk of psychiatric morbidity in pregnant women. Identification of these groups at increased risk of psychiatric disorders should help alert all clinicians who treat pregnant and postpartum women (and their children) and to focus targeted prevention and early treatment interventions in these populations.

Pregnant women with psychiatric disorders seldom reported having sought mental health treatment. Consistent with prior community surveys, most women with a current psychiatric disorder did not receive any mental health care in the 12-months prior to the survey [76].[77]. We found that this result holds regardless of pregnancy status, even when adjusting for sociodemographic factors. Furthermore, past-year pregnant women with past-year mood disorders had lower treatment rates than non-pregnant women. This observation is consistent with a recent report that pregnant women are less likely than non-pregnant women to receive inpatient or outpatient psychiatric treatment[9] and that mental health symptoms and diagnoses are significantly undetected and underrecorded in pregnant women who receive prenatal care in obstetrics clinics.[46] Our analyses suggest that differences in service use are unlikely to be due to lower need (i.e., lower prevalence), but rather to a decreased ability to obtain care. This important, previously undetected health care disparity is even more striking because most women of childbearing age access the health care system during their pregnancy or postpartum.[78] Their failure to receive psychiatric treatment suggests the existence of important barriers to mental health care for this population.[79]

Patients and health care providers may view psychiatric symptoms as a normative response to the physiological and psychosocial changes during this period. Based on our results, such reactions may be mistaken and may interfere with recognition and treatment of psychiatric disorders among pregnant and postpartum women.[21, 46] Educational campaigns targeting women, their caretakers, and primary care physicians may be needed to increase recognition of psychiatric disorders among pregnant women. Mental health screening during routine prenatal and obstetrical care may improve the detection of psychiatric disorders.[46] Dilemmas about the treatment of psychiatric disorders during pregnancy and puerperium may discourage women from seeking psychiatric treatment during this period.[80] Development and testing of empirically-validated treatments for pregnant women that are safe for the fetuses may increase rates of treatment-seeking.[81–84] Competing medical demands, such as those directly related

to pregnancy, postpartum and pediatric care, other family, social and work obligations or simply fatigue may interfere with patients' ability to attend appointments. Treatment models that are more patient-centered may be needed to facilitate mental health treatment of this population.[85] Those models may include modifications already in place for the treatment of other populations, such as delivery of psychotherapy over the telephone or extended clinic hours.[86]

Our results should be interpreted in the context of the following limitations. First, information on pregnancy status was based on self-report and not confirmed by pregnancy test. Second, because the NESARC sample only included individuals 18 years and older, information was unavailable on adolescents, who may be at increased risk of developing psychiatric disorders during pregnancy, although rates of adolescent pregnancy have recently declined.[87]. Third, although NESARC is the largest US psychiatric epidemiological survey ever conducted, our power to detect subgroup differences in the prevalence of rare mental disorders, e.g., psychotic disorders, is limited.

Fourth, the assessment of 12-month symptoms in currently pregnant women may have included women who were early in pregnancy, and therefore reporting symptoms largely, or entirely from months prior to pregnancy. This would result in reducing the apparent differences in prevalence between the non-pregnant and the pregnant women samples. However, most of the findings held when analyzing those two groups separately. Fifth, the NESARC did not specifically assess the amount of obstetrical care received by pregnant and recent-postpartum women, information that would be helpful to add to future large-scale epidemiologic studies. Sixth, the cross sectional design does not permit distinguishing the effects of pregnancy selection from pregnancy itself on rates of psychiatric disorder and treatment. In other words, if women without prior history of psychopathology were more likely to become pregnant than those with psychopathology, selection bias could mask an effect of pregnancy on increased rates of psychiatric disorders in pregnant women. However, by controlling by prior psychopathology, our analyses should have minimized this possibility, at least to some extent. Prospective studies that compare pregnant women with women who attempt but fail to become pregnant may also be biased by potential psychopathology related to pregnancy failure.

Seventh, the NESARC did not collect data on month of pregnancy, period since delivery, use of psychotropic medication during pregnancy or puerperium, pregnancy outcomes or specific complications. It is possible that some of the women included in the postpartum group may have had a miscarriage or abortion. However, our data suggest that women with pregnancy complications have a greater prevalence of psychiatric disorders than other pregnant women. Exclusion of women with a miscarriage or abortion from the analyses would have resulted in lower estimates of mental disorders than the ones reported here, suggesting that our analyses do not underestimate the prevalence of psychiatric disorders among pregnant women. Eighth, information on substance use and substance use disorders was based on self-report and not confirmed by objective methods. Some discrepancies have been found between self-reported and objectively measured rates of drug use in pregnant women in antenatal care [88] Finally, our results rely on DSM-IV Axis I categories, a dichotomous model of psychopathology. Continuous models of psychopathology, currently being considered for DSM-V, may have provided different results.

Despite these limitations, the NESARC constitutes the largest nationally representative survey to date to include information on psychiatric disorders in pregnant women. Pregnancy is traditionally viewed as a stressful period that may provoke mental illness. [89] However, with the exception of major depressive disorder among postpartum women, the prevalence of psychiatric disorders is not significantly higher in pregnant women and postpartum women than in non-pregnant women of childbearing age. It is possible that the clinical impression of

elevated rates of mental disorders among pregnant women is explained by the higher contact of pregnant women with some aspects of the health care system, in this age period, compared to their non-pregnant counterparts, whose disorders are therefore underestimated. In this study, groups of pregnant women with particularly high prevalence of psychopathology were identified (i.e. pregnant women aged 18–25, living without a partner, widowed, separated, divorced, and never married, pregnant women who experienced pregnancy complications, stressful life events, and trauma or victimization, and pregnant women with overall poor health). These more vulnerable groups should be targeted for prevention, assessment, and intervention efforts. Low rates of mental health service use were identified in this population. Given the critical importance of this life period for mothers and their offspring, urgent action is needed to increase detection and treatment of psychiatric disorders among pregnant and postpartum women in the United States.

## Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

## Acknowledgements

All such disclosures should be listed in the Acknowledgment section at the end of the manuscript. Authors without conflicts of interest, including specific financial interests and relationships and affiliations relevant to the subject of their manuscript, should include a statement of no such interest in the Acknowledgment section of the manuscript.

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**Table 1**

Twelve-Month Percentage Distributions and Odds Ratios (OR) of Sociodemographic Characteristics by Pregnancy Status

| | Non-Pregnant Women (N=13,025) | | Past Year Pregnant Women (N=1,524) | | | Postpartum Women (N=994) | | |
|---|---|---|---|---|---|---|---|---|
| **Characteristic** | **%** | **SE** | **%** | **SE** | **OR (CI)** | **%** | **SE** | **OR (CI)** |
| Race/ethnicity | | | | | | | | |
| White | 67.0 | (1.9) | 57.2 | (2.4) | 1.0 | 55.5 | (2.8) | 1.0 |
| Black | 13.2 | (0.8) | 14.2 | (1.2) | 1.25 (1.04–1.51) | 14.4 | (1.4) | 1.32 (1.08–1.61) |
| Native American | 2.1 | (0.2) | 2.8 | (0.6) | 1.57 (0.96–2.57) | 2.8 | (0.7) | 1.63 (0.94–2.82) |
| Asian | 4.9 | (0.6) | 6.1 | (1.0) | 1.47 (1.06–2.02) | 5.5 | (0.9) | 1.35 (0.92–1.97) |
| Hispanic | 12.9 | (1.4) | 19.7 | (2.5) | 1.80 (1.48–2.18) | 21.8 | (3.0) | 2.05 (1.61–2.60) |
| Nativity | | | | | | | | |
| US-born | 84.8 | (1.5) | 80.0 | (2.2) | 1.0 | 78.4 | (2.6) | 1.0 |
| Foreign-born | 15.2 | (1.5) | 20.0 | (2.2) | 1.39 (1.19–1.62) | 21.6 | (2.6) | 1.54 (1.27–1.86) |
| Age, y | | | | | | | | |
| 18–25 | 21.0 | (0.5) | 38.0 | (1.8) | 2.30 (1.96–2.69) | 36.1 | (2.2) | 2.13 (1.75–2.59) |
| 26–50 | 79.0 | (0.5) | 62.1 | (1.8) | 1.0 | 63.9 | (2.2) | 1.0 |
| Marital status | | | | | | | | |
| Married/cohabiting | 59.6 | (0.7) | 76.2 | (1.5) | 1.0 | 75.4 | (1.9) | 1.0 |
| Widowed/separated/divorced | 13.4 | (0.4) | 4.7 | (0.6) | 0.27 (0.21–0.36) | 5.9 | (0.9) | 0.35 (0.25–0.49) |
| Never married | 27.0 | (0.7) | 19.2 | (1.4) | 0.55 (0.45–0.68) | 18.7 | (1.8) | 0.55 (0.42–0.71) |
| Education | | | | | | | | |
| Less than high school | 11.2 | (0.7) | 17.1 | (1.3) | 1.0 | 18.6 | (1.7) | 1.0 |
| High school | 27.0 | (0.6) | 26.3 | (1.3) | 0.64 (0.53–0.77) | 24.9 | (1.6) | 0.55 (0.44–0.71) |
| College or higher | 61.9 | (0.8) | 56.6 | (1.7) | 0.60 (0.51–0.70) | 56.5 | (2.1) | 0.55 (0.44–0.68) |
| Personal Annual income, $ | | | | | | | | |
| 0–19999 | 56.1 | (0.8) | 69.8 | (1.5) | 1.0 | 72.9 | (1.6) | 1.0 |
| 20000–34999 | 22.6 | (0.5) | 16.9 | (1.2) | 0.60 (0.51–0.72) | 15.5 | (1.4) | 0.53 (0.43–0.66) |
| 35000–69999 | 17.5 | (0.6) | 10.3 | (1.0) | 0.47 (0.39–0.58) | 8.7 | (1.0) | 0.38 (0.30–0.50) |
| 70000 | 3.7 | (0.3) | 3.0 | (0.5) | 0.63 (0.44–0.91) | 2.9 | (0.6) | 0.59 (0.38–0.93) |
| Urbanicity | | | | | | | | |
| Rural | 62.7 | (2.6) | 58.5 | (3.3) | 1.19 (1.00–1.42) | 40.1 | (3.4) | 1.13 (0.92–1.39) |

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| Characteristic | Non-Pregnant Women (N=13,025) % | SE | Past Year Pregnant Women (N=1,524) % | SE | OR (CI) | Postpartum Women (N=994) % | SE | OR (CI) |
|---|---|---|---|---|---|---|---|---|
| Urban | 37.3 | (2.6) | 41.5 | (3.3) | 1.0 | 59.9 | (3.4) | 1.0 |
| Region | | | | | | | | |
| Northwest | 19.6 | (3.5) | 18.5 | (3.9) | 0.87 (0.69–1.11) | 17.1 | (3.9) | 0.83 (0.61–1.13) |
| Midwest | 22.9 | (3.4) | 23.1 | (3.7) | 0.93 (0.75–1.15) | 24.1 | (3.8) | 1.00 (0.77–1.30) |
| South | 35.2 | (3.5) | 34.3 | (3.8) | 0.89 (0.74–1.09) | 35.3 | (4.1) | 0.95 (0.76–1.19) |
| West | 22.3 | (3.7) | 24.1 | (4.4) | 1.0 | 23.5 | (4.5) | 1.0 |
| Parity | | | | | | | | |
| Nullipara | 32.9 | (0.7) | 17.8 | (1.3) | 0.44 (0.36–0.53) | 100 | (0.0) | -- |
| Multipara [a] | 67.1 | (0.7) | 82.3 | (1.3) | 1.0 | 0 | (0.0) | -- |
| Insurance | | | | | | | | |
| Private | 68.8 | (1.0) | 57.2 | (1.9) | 0.89 (0.74–1.07) | 55.4 | (2.3) | 0.80 (0.64–1.01) |
| Public | 8.5 | (0.4) | 21.6 | (1.5) | 2.72 (2.20–3.37) | 21.9 | (1.7) | 2.58 (1.99–3.33) |
| None | 22.8 | (0.8) | 21.3 | (1.5) | 1.0 | 22.8 | (2.0) | 1.0 |
| Overall Health | | | | | | | | |
| Overall Health (Good, very good, or excellent) | 89.6 | (0.4) | 94.3 | (0.7) | 1.92 (1.49–2.46) | 94.3 | (0.9) | 1.93 (1.39–2.69) |
| Stressful Life Events | | | | | | | | |
| Mean # of Stressful Life events | 1.8 | (0.0) | 2.0 | (0.1) | 1.08 (1.04–1.12) | 2.1 | (0.1) | 1.11 (1.06–1.17) |
| Break up of romantic relationship/ Separation/divo rce in the last 12 months | 8.2 | (0.3) | 8.8 | (0.8) | 1.08 (0.87–1.35) | 9.6 | (1.1) | 1.19 (0.91–1.55) |
| History of trauma/victimization in the last 12 months | 4.6 | (0.2) | 5.3 | (0.6) | 1.18 (0.92–1.53) | 4.7 | (0.7) | 1.04 (0.75–1.44) |

Abbreviations: SE, Standard Error; OR, Odds Ratio; CI, 95% confidence interval.

[a] one ore more children

**Table 2**

Twelve-Month Prevalence and Odds Ratios (OR) of DSM-IV Axis I Psychiatric Disorders by Pregnancy Status.

| | Non-Pregnant Women (N=13,025) | | Past Year Pregnant Women (N=1,524) | | | | Postpartum Women (N=994) | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Disorder** | **%** | **SE** | **%** | **SE** | **OR (CI)** | **AOR[a] (CI)** | **%** | **SE** | **OR (CI)** | **AOR[a] (CI)** |
| Any psychiatric disorder | 30.1 | (0.8) | 25.3 | (1.3) | 0.78 (0.69–0.90) | 0.75 (0.62–0.90) | 25.7 | (1.8) | 0.80 (0.68–0.95) | 0.81 (0.65–1.02) |
| Any new onset psychiatric disorder (current but not prior to the past 12 months ) | 7.0 | (0.3) | 8.0 | (0.8) | 1.16 (0.92–1.46) | 0.97 (0.75–1.25) | 8.3 | (1.1) | 1.20 (0.89–1.61) | 0.96 (0.69–1.33) |
| Any substance use disorder | 19.9 | (0.7) | 14.6 | (1.2) | 0.68 (0.57–0.82) | 0.56 (0.44–0.71) | 12.0 | (1.3) | 0.55 (0.43–0.69) | 0.44 (0.33–0.59) |
| Any alcohol use disorder | 7.6 | (0.4) | 3.6 | (0.5) | 0.45 (0.34–0.60) | 0.49 (0.36–0.67) | 2.9 | (0.6) | 0.36 (0.23–0.54) | 0.41 (0.27–0.64) |
| Any drug use disorder | 2.0 | (0.2) | 1.6 | (0.4) | 0.82 (0.49–1.37) | 0.52 (0.29–0.94) | 1.3 | (0.5) | 0.63 (0.30–1.34) | 0.50 (0.23–1.08) |
| Nicotine dependence | 14.6 | (0.6) | 12.5 | (1.1) | 0.84 (0.68–1.02) | 0.79 (0.64–0.97) | 10.7 | (1.2) | 0.70 (0.55–0.89) | 0.60 (0.47–0.76) |
| Any mood disorder | 13.7 | (0.5) | 13.3 | (1.1) | 0.96 (0.80–1.16) | 1.04 (0.83–1.32) | 15.2 | (1.5) | 1.13 (0.90–1.40) | 1.28 (0.97–1.69) |
| MDD | 8.1 | (0.9) | 8.4 | (0.4) | 0.95 (0.75–1.20) | 1.24 (0.94–1.64) | 9.3 | (1.1) | 1.11 (0.84–1.46) | 1.52 (1.07–2.15) |
| Dysthymia | 2.0 | (0.2) | 0.9 | (0.4) | 0.46 (0.21–1.00) | 0.51 (0.22–1.18) | 1.0 | (0.5) | 0.49 (0.18–1.33) | 0.74 (0.26–2.07) |
| Bipolar disorder | 2.3 | (0.2) | 2.8 | (0.5) | 1.26 (0.86–1.84) | 1.09 (0.70–1.70) | 2.9 | (0.6) | 1.31 (0.86–2.00) | 1.08 (0.66–1.78) |
| Any anxiety disorder | 14.9 | (0.6) | 13.0 | (1.1) | 0.85 (0.70–1.03) | 0.99 (0.68–1.43) | 12.3 | (1.3) | 0.81 (0.65–1.00) | 0.89 (0.57–1.38) |
| Panic disorder | 3.0 | (0.2) | 2.2 | (0.5) | 0.73 (0.46–1.15) | 0.91 (0.53–1.56) | 2.5 | (0.6) | 0.83 (0.50–1.39) | 0.92 (0.48–1.73) |
| Social anxiety disorder | 2.8 | (0.2) | 1.8 | (0.4) | 0.65 (0.41–1.02) | 0.66 (0.33–1.31) | 1.0 | (0.4) | 0.34 (0.15–0.75) | 0.36 (0.14–0.92) |
| Specific phobia | 10.2 | (0.5) | 9.2 | (0.9) | 0.89 (0.72–1.11) | 0.93 (0.53–1.61) | 8.7 | (1.0) | 0.84 (0.66–1.08) | 0.97 (0.49–1.91) |
| Generalized anxiety | 1.8 | (0.2) | 1.3 | (0.4) | 0.73 (0.42–1.29) | 1.57 (0.82–3.02) | 1.5 | (0.5) | 0.81 (0.41–1.60) | 1.78 (0.81–3.94) |
| Any psychotic disorder | 0.3 | (0.1) | 0.4 | (0.2) | 1.14 (0.44–2.94) | 1.50 (0.54–4.18) | 0.5 | (0.2) | 1.60 (0.58–4.45) | 1.98 (0.61–6.46) |
| Any substance use | 73.8 | (1.0) | 63.0 | (1.8) | 0.60 (0.53–0.69) | 0.66 (0.57–0.77) | 62.1 | (2.1) | 0.58 (0.49–0.69) | 0.63 (0.52–0.77) |
| Any alcohol use | 68.5 | (0.9) | 59.0 | (1.7) | 0.66 (0.58–0.75) | 0.71 (0.61–0.81) | 58.1 | (2.1) | 0.64 (0.54–0.75) | 0.69 (0.57–0.83) |
| Any tobacco use | 26.6 | (0.8) | 21.9 | (1.5) | 0.77 (0.66–0.91) | 0.76 (0.64–0.89) | 21.5 | (1.8) | 0.75 (0.62–0.92) | 0.69 (0.56–0.83) |
| Any illicit drug use | 6.8 | (0.3) | 6.2 | (0.7) | 0.91 (0.72–1.17) | 0.87 (0.66–1.15) | 6.1 | (0.8) | 0.89 (0.66–1.20) | 0.93 (0.67–1.28) |
| Mean number of cigarettes smoked per day in last year (only among smokers) | 15.9[b] | 0.3 | 16.6[b] | 1.4 | t=0.52, p=0.60 | B=0.05, SE=0.04, p=0.29[c] | 16.3 [b] | 1.6 | t=0.23, p=0.82 | B=0.04, SE=0.04, p=0.28 [c] |

Abbreviations: SE, Standard Error; OR, Odds Ratio; AOR, Adjusted Odds Ratio; CI, 95% confidence interval.

[a] Odds ratios adjusted for race/ethnicity, nativity, age, marital status, education, parity, lifetime history of row-defined disorder (disorder occurring prior to the past 12 months), overall health and number of stressful life events.

[b] Mean

[c] Linear regression controlled for race/ethnicity, nativity, age, marital status, education, parity, overall health and stressful life events.

**Table 3**

Twelve-Month Percentage Distributions and Odds Ratios (OR) of Sociodemographic Characteristics by Pregnancy and Psychiatric Status.

| | Past Year Pregnant Women with Any Psychiatric Disorder [a] (N=389) | | Past Year Pregnant Women without Any Psychiatric Disorder (N=1,135) | | | Postpartum Women with Any Psychiatric Disorder* (N=254) | | Postpartum Women without Any Psychiatric Disorder (N=740) | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Characteristic** | **%** | **SE** | **%** | **SE** | **AOR[b] (CI)** | **%** | **SE** | **%** | **SE** | **AOR[b] (CI)** |
| Race/ethnicity | | | | | | | | | | |
| White | 60.7 | (3.1) | 56.0 | (2.7) | 1.0 | 59.5 | (3.8) | 54.1 | (3.2) | 1.0 |
| Black | 16.7 | (2.2) | 13.3 | (1.5) | 0.91 (0.58–1.41) | 17.0 | (2.7) | 13.5 | (1.6) | 1.02 (0.59-1.76) |
| Native American | 4.4 | (1.3) | 2.2 | (0.7) | 1.48 (0.54–4.07) | 6.4 | (2.0) | 1.5 | (0.6) | 3.36 (1.08–10.40) |
| Asian | 4.8 | (1.3) | 6.6 | (1.2) | 1.24 (0.60–2.58) | 5.4 | (1.8) | 5.5 | (1.1) | 1.95 (0.70–5.44) |
| Hispanic | 13.4 | (2.2) | 21.9 | (2.8) | 0.66 (0.41–1.06) | 11.7 | (2.1) | 25.4 | (3.5) | 0.53 (0.31–0.92) |
| Age | | | | | | | | | | |
| 18–25 | 47.7 | (3.1) | 34.7 | (2.0) | 1.49 (1.05–2.10) | 42.8 | (3.6) | 33.8 | (2.6) | 1.34 (0.89-2.03) |
| 25–50 | 52.4 | (3.1) | 65.3 | (2.0) | 1.0 | 57.2 | (3.6) | 66.2 | (2.6) | 1.0 |
| Marital status | | | | | | | | | | |
| Married/cohabiting | 65.0 | (2.9) | 79.9 | (1.6) | 1.0 | 65.5 | (3.5) | 78.8 | (2.2) | 1.0 |
| Widowed/separated/divorced | 8.7 | (1.8) | 3.3 | (0.6) | 3.12 (1.83–5.31) | 12.3 | (2.7) | 3.7 | (0.8) | 3.28 (1.75–6.17) |
| Never married | 26.3 | (2.6) | 16.7 | (1.5) | 1.53 (1.03–2.28) | 22.3 | (2.8) | 17.5 | (2.2) | 1.18 (0.75–1.87) |
| Education | | | | | | | | | | |
| Less than high school | 19.0 | (2.5) | 16.4 | (1.5) | 1.0 | 21.6 | (3.3) | 17.6 | (1.8) | 1.0 |
| High school | 29.0 | (2.7) | 25.4 | (1.4) | 0.87 (0.57–1.34) | 25.8 | (3.1) | 24.6 | (1.8) | 0.67 (0.39–1.15) |
| College or higher | 52.0 | (3.0) | 58.2 | (2.0) | 0.78 (0.50–1.22) | 52.7 | (3.8) | 57.9 | (2.4) | 0.61 (0.36–1.04) |
| Personal Annual income, $ | | | | | | | | | | |
| 0–19999 | 72.0 | (2.7) | 69.0 | (1.9) | 1.0 | 75.5 | (3.2) | 72.0 | (2.1) | 1.0 |
| 20000–34999 | 17.4 | (2.2) | 16.8 | (1.4) | 1.05 (0.70–1.60) | 16.1 | (2.7) | 15.3 | (1.6) | 0.95 (0.55–1.64) |
| 35000–69999 | 8.2 | (1.7) | 11.1 | (1.2) | 0.84 (0.47–1.51) | 5.6 | (1.6) | 9.8 | (1.3) | 0.55 (0.26–1.16) |
| 70000 | 2.4 | (1.0) | 3.1 | (0.6) | 0.92 (0.34–2.51) | 2.8 | (1.3) | 2.9 | (0.7) | 0.94 (0.25–3.48) |
| Urbanicity | | | | | | | | | | |
| Rural | 45.4 | (3.8) | 40.2 | (3.6) | 1.27 (0.92–1.75) | 44.8 | (4.4) | 38.7 | (3.9) | 1.30 (0.83–2.03) |
| Urban | 54.6 | (3.8) | 59.8 | (3.6) | 1.0 | 55.2 | (4.4) | 61.3 | (3.9) | 1.0 |

| Characteristic | Past Year Pregnant Women with Any Psychiatric Disorder [a] (N=389) | | Past Year Pregnant Women without Any Psychiatric Disorder (N=1,135) | | | Postpartum Women with Any Psychiatric Disorder* (N=254) | | Postpartum Women without Any Psychiatric Disorder (N=740) | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | % | SE | % | SE | AOR[b] (CI) | % | SE | % | SE | AOR[b] (CI) |
| Region | | | | | | | | | | |
| Northwest | 13.3 | (2.9) | 20.3 | (4.4) | 0.67 (0.45–1.01) | 12.1 | (2.9) | 18.9 | (4.6) | 0.61 (0.33–1.12) |
| Midwest | 28.1 | (3.8) | 21.4 | (3.9) | 1.12 (0.73–1.71) | 27.9 | (4.3) | 22.8 | (4.1) | 0.98 (0.57–1.67) |
| South | 35.6 | (3.9) | 33.8 | (4.1) | 0.96 (0.67–1.37) | 38.6 | (4.3) | 34.1 | (4.6) | 1.02 (0.65–1.61) |
| West | 22.9 | (3.7) | 24.4 | (4.8) | 1.0 | 21.4 | (3.7) | 24.2 | (5.2) | 1.0 |
| Parity | | | | | | | | | | |
| Nullipara | 20.8 | (2.6) | 16.7 | (1.5) | 1.25 (0.86–1.81) | 13.7 | (2.6) | 0 | (0.0) | -- |
| Multipara[f] | 79.2 | (2.6) | 83.3 | (1.5) | 1.0 | 86.3 | (2.6) | 100.0 | (0.0) | -- |
| Pregnancy complications | 40.1 | (2.8) | 25.2 | (1.7) | 1.90 (1.42–2.54) | 47.3 | (3.2) | 42.9 | (3.4) | 1.70 (1.23–2.35) |
| Breakup of romantic relationship/ separation/divorce in the last 12 months | 18.3 | (2.3) | 5.6 | (0.8) | 2.54 (1.59–4.07) | 20.0 | (3.0) | 6.1 | (1.0) | 2.49 (1.36–4.57) |
| Mean number of stressful life events in past year [c] | 3.1 | (0.1) | 1.6 | (0.1) | 1.41 (1.30–1.52) | 3.2 | (0.2) | 1.7 | (0.1) | 1.44 (1.30–1.60) |
| Overall health (good, very good, or excellent) [d] | 87.7 | (1.9) | 96.5 | (0.6) | 0.30 (0.18–0.50) | 88.9 | (2.4) | 96.1 | (0.8) | 0.38 (0.20–0.74) |
| History of trauma/victimization in the last 12 months [e] | 9.4 | (1.6) | 4.0 | (0.6) | 2.23 (1.33–3.74) | 9.4 | (1.9) | 3.1 | (0.7) | 3.31 (1.69–6.48) |

Abbreviations: SE, Standard Error; AOR, Adjusted Odds Ratio; CI, 95% confidence interval.

[a] Psychiatric disorders included a past year diagnosis of any alcohol use disorder, any drug use disorder, nicotine dependence, MDD, dysthymia, bipolar disorder, panic disorder, social anxiety disorder, specific phobia, or generalized anxiety disorder.

[b] Odds ratios adjusted for race/ethnicity, nativity, age, marital status, education and parity.

[c] Odds of having a psychiatric disorder with each additional stressful life event in the past year.

[d] Overall health status assessed self-report perception of the respondents' health. Respondents were asked: "in general, would you say your health is excellent, very good, fair or poor?".

[e] History of trauma and victimization in the past 12 months was defined as being personally the victim of a crime or attempted crime, such as: being beat up, mugged or attacked by a stranger or someone they knew, being hit, threatened, or forced to have sex.

$f_{\text{one ore more children}}$

**Table 4**

Prevalence and Odds Ratios (OR) of Mental Health Service Utilization Among Non-Pregnant, Past Year Pregnant and Postpartum Women with 12-Month and Lifetime DSM-IV Disorders.

| | Non- Pregnant Women (N=13,025) | | Past Year Pregnant Women (N=1,524) | | | | Postpartum Women(N=994) | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | % | SE | % | SE | OR (CI) | AOR[a] (CI) | % | SE | OR (CI) | AOR[a] (CI) |
| Past year treatment seeking for any disorder *b* | 16.5 | (0.8) | 10.5 | (1.8) | 0.59 (0.40–0.88) | 0.68 (0.44–1.04) | 11.1 | (2.3) | 0.63 (0.39–1.02) | 0.64 (0.39–1.05) |
| Lifetime treatment seeking for any disorder *b* | 41.0 | (0.8) | 35.8 | (2.3) | 0.80 (0.65–0.98) | 0.88 (0.70–1.09) | 40.7 | (2.9) | 0.99 (0.78–1.25) | 1.03 (0.80–1.33) |
| Past year treatment seeking for alcohol disorder | 6.0 | (0.9) | 9.9 | (4.6) | 1.70 (0.54–5.37) | 1.79 (0.44–7.29) | 8.3 | (5.9) | 1.40 (0.28–7.09) | 1.06 (0.15–7.41) |
| Life time treatment seeking for alcohol disorder | 41.0 | (0.8) | 7.6 | (1.6) | 0.67 (0.43–1.05) | 0.69 (0.43–1.13) | 9.1 | (2.1) | 0.81 (0.49–1.35) | 0.75 (0.43–1.33) |
| Past year treatment seeking for drug disorder | 17.0 | (3.0) | 30.3 | (11.0) | 2.13 (0.68–6.67) | 2.56 (0.59–1.09) | 34.6 | (16.2) | 2.59 (0.59–11.40) | 2.43 (0.46–12.95) |
| Lifetime treatment seeking for drug disorder | 15.3 | (1.2) | 18.0 | (3.4) | 2.85 (0.98–8.29) | 2.92 (0.90–9.50) | 21.0 | (4.5) | 3.60 (0.79–16.43) | 3.26 (0.62–17.25) |
| Past year treatment seeking for mood disorder | 25.5 | (1.4) | 14.3 | (2.7) | 0.49 (0.31–0.77) | 0.57 (0.34–0.93) | 15.0 | (3.3) | 0.52 (0.30–0.88) | 0.55 (0.31–0.96) |

| | Non- Pregnant Women (N=13,025) | | Past Year Pregnant Women (N=1,524) | | | | Postpartum Women(N=994) | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | % | SE | % | SE | OR (CI) | AOR[a] (CI) | % | SE | OR (CI) | AOR[a] (CI) |
| Lifetime treatment seeking for mood disorder | 61.1 | (1.1) | 56.1 | (3.2) | 0.76 (0.53–1.07) | 0.86 (0.58–1.27) | 58.6 | (3.7) | 0.73 (0.48–1.10) | 0.76 (0.48–1.19) |
| Past year treatment seeking for anxiety disorder | 11.6 | (1.0) | 6.1 | (1.9) | 0.50 (0.25–0.97) | 0.62 (0.31–1.24) | 7.5 | (2.6) | 0.62 (0.29–1.32) | 0.72 (0.33–1.57) |
| Lifetime treatment seeking for anxiety disorder | 29.0 | (1.1) | 23.2 | (2.9) | 0.74 (0.52–1.05) | 0.92 (0.65–1.30) | 27.9 | (4.3) | 0.95 (0.61–1.47) | 1.10 (0.71–1.73) |

Abbreviations: SE, Standard Error; OR, Odds Ratio; AOR, Adjusted Odds Ratio; CI, 95% confidence interval.

[a]Odds ratios adjusted for race/ethnicity, nativity, age, marital status, education, and parity.

[b]Mental health service utilization among respondents with the specific 12-month or lifetime disorder (disorder occurring prior to the past 12 months).