

PREVALENCE OF DEPRESSION OR ANXIETY DURING ANTEPARTUM HOSPITALIZATIONS FOR OBSTETRIC COMPLICATIONS: A SYSTEMATIC REVIEW

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Abstract

Introduction: Women with pregnancy problems are more likely to develop perinatal mood disorders or relapse into underlying mood disorders.

Objective: This study aimed to look at the prevalence of prenatal depression and anxiety in women admitted to an antepartum ward for obstetric problems.

Methods: We searched Pubmed, Embase, the Cumulative Index to Nursing and Allied Health Literature (CINAHL), PsycINFO, and ClinicalTrials.gov for English-language papers published between establishing the database in July 2023. The cross-sectional, cohort, case-control, quasi-experimental, and randomized-controlled designs used in the selected studies were all related to the research goal.

Results: We discovered 8.799 papers and reviewed 7.918, included in the primary outcome systematic review. Using a 14-question checklist is used to assess the quality of each study. Depression was 34% (95% CI 27-41%), while anxiety was 29% (95% CI 16-43%). Significant clinical and methodologic heterogeneity between trials was expected, and it persisted even after planned a priori subgroup analysis and meta-regression. Nonetheless, the effect direction was constant across trials. There was no evidence of publication bias.

Conclusion: According to the current systematic review, one in every three pregnant women hospitalized for obstetric difficulties has clinical depression or anxiety symptoms, double the reported prevalence of prenatal depression or anxiety in the general obstetric population.

Keywords: antepartum, anxiety, depression, hospitalized pregnant women,

INTRODUCTION

Perinatal mood and anxiety disorders affect a woman's health during pregnancy or up to a year after giving birth. In the United States, maternal mental health problems are one of the major causes of pregnancy-related mortality.¹ Suicidal ideation and purposeful self-harm in pregnant or postpartum women have been growing over the last 15 years², and suicide is believed to account for 5-6.5% of all maternal deaths.^{1,3} Maternal mental health problems account for 12.9% of all maternal deaths¹, with the majority happening postpartum.⁴

Women with pregnancy problems are more likely to develop perinatal mood disorders or relapse into underlying mood disorders.⁵⁻⁷ It has been reported that 12% and 18% of women in the general obstetric population experience antenatal depression, and 13 to 21% experience antenatal anxiety. However, estimates vary widely and are higher in certain groups of women with additional risk factors, such as women with obstetric complications.^{8,9} When antepartum hospitalization is added to the mix, women may face social isolation, separation from social supports, poor sleep, and high-stress levels.¹⁰ These women are also more likely to have a neonate who requires neonatal intensive care unit (NICU) admission, protracted hospitalization, and a complex postpartum course, all of which are risk factors for signs of postpartum mental disorders.¹¹⁻¹³

This systematic review aims to evaluate the prevalence of prenatal depression and anxiety in women admitted to an antepartum unit due to obstetric problems. Knowing about prevalence is an essential initial step in defining disease burden to direct and prioritize future research on screening, preventive interventions, and treatment methods for these at-risk women.

Methods

Protocol and Registration

This systematic review followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyzes (PRISMA) criteria.¹⁴ The population studied was pregnant women at any age and any gestational age at the time of the study. The exposure of interest was antepartum hospitalization. Studies were included if participants were hospitalized in an antepartum unit for any length of stay for medical or obstetric complications. Subjects with any co-morbid psychiatric or other medical conditions were included. Outcome studied was presence of depression or anxiety identified either via validated, self-report scale, or a diagnostic interview.

Search Strategy

The search was conducted in multiple electronic databases, including PubMed, Embase, Cumulative Index to Nursing and Allied Health Literature (CINAHL), PsycINFO, and ClinicalTrials.gov. The search was conducted on July 2023 to identify studies that discussed depression, anxiety, or stress in hospitalized pregnant women. The search strategies included a combination of keywords and controlled vocabulary terms. The search strategies did not include any limits on dates or language. The manual bibliographic search of identified studies was also done in the last step of the literature search.

Table 1. Literature search strategy

Database	Keywords	Results
PubMed	((("Depression"[Mesh] OR "Depressive Disorder"[Mesh] OR "Anxiety"[Mesh] OR "Anxiety Disorders"[Mesh] OR "Stress, Psychological"[Mesh] OR "Mood Disorders"[Mesh] OR "Stress Disorders, Post-Traumatic"[Mesh]) OR ("Depression"[tiab] OR "Depressions"[tiab] OR "Depressive"[tiab] OR "Anxiety"[tiab] OR "Anxieties"[tiab] OR "Hypervigilance"[tiab] OR "Nervous"[tiab] OR "Nervousness"[tiab] OR "Distress"[tiab] OR "Distresses"[tiab] OR "Dysphoria"[tiab] OR "Dysphorias"[tiab] OR "Mood"[tiab] OR "Affective"[tiab] OR "Post-Traumatic"[tiab] OR "Post Traumatic"[tiab] OR "Posttraumatic"[tiab] OR "PTSD"[tiab] OR "Traumatic Stress"[tiab] OR "Trauma and Stress Related Disorder"[tiab] OR "Trauma and Stress Related Disorders"[tiab])) AND (("Pregnant Women"[Mesh] OR "Pregnancy"[Mesh] OR "Pregnancy Complications"[Mesh] OR "PreEclampsia"[Mesh] OR "Obstetric Labor, Premature"[Mesh] OR "Premature Birth"[Mesh]) OR ("Pregnant"[tiab] OR "Prenancy"[tiab] OR "Pregnancies"[tiab] OR "Antenatal"[tiab] OR "Antepartum"[tiab] OR "PreEclampsia"[tiab] OR "Preeclampsia"[tiab] OR "Pre Eclampsia"[tiab] OR "Toxemia"[tiab] OR "Toxemias"[tiab] OR "Edema-ProteinuriaHypertension Gestosis"[tiab] OR "Edema Proteinuria Hypertension Gestosis"[tiab] OR "Premature"[tiab] OR "Prematurity"[tiab] OR "Preterm"[tiab] OR "Pre-Term"[tiab] OR "Pre Term"[tiab])) AND (("Inpatients"[Mesh] OR "Hospitalization"[Mesh]) OR ("Inpatient"[tiab] OR "Inpatients"[tiab]OR "Hospitalization"[tiab] OR "Hospitalizations"[tiab] OR "Hospitalized"[tiab] OR "Hospitalisation"[tiab] OR "Hospitalisations"[tiab] OR "Hospitalised"[tiab])))	6.258

Embase	((('depression'/exp OR 'anxiety'/exp OR 'anxiety disorder'/exp OR 'mental stress'/exp OR 'mood disorder'/exp OR 'posttraumatic stress disorder'/exp) AND ('pregnant woman'/exp OR 'pregnancy'/exp OR 'pregnancy complication'/exp OR 'preeclampsia'/exp OR 'premature labor'/exp OR 'prematurity'/exp)) AND (('hospital inpatients' OR 'hospitalization'/exp) OR (depression:ti,ab,kw OR depressions:ti,ab,kw OR depressive:ti,ab,kw OR anxiety:ti,ab,kw OR anxieties:ti,ab,kw OR hypervigilance:ti,ab,kw OR nervous:ti,ab,kw OR nervousness:ti,ab,kw OR distress:ti,ab,kw OR distresses:ti,ab,kw OR dysphoria:ti,ab,kw OR dysphorias:ti,ab,kw OR mood:ti,ab,kw OR affective:ti,ab,kw OR 'post-traumatic':ti,ab,kw OR 'post traumatic':ti,ab,kw OR posttraumatic:ti,ab,kw OR ptsd:ti,ab,kw OR 'traumatic stress':ti,ab,kw) AND (pregnant:ti,ab,kw OR pregnancy:ti,ab,kw OR pregnancies:ti,ab,kw OR antenatal:ti,ab,kw OR antepartum:ti,ab,kw OR 'pre-eclampsia':ti,ab,kw OR preeclampsia:ti,ab,kw OR 'pre eclampsia':ti,ab,kw OR toxemia:ti,ab,kw OR toxemias:ti,ab,kw OR 'edema-proteinuria-hypertension gestosis':ti,ab,kw OR 'edema proteinuria hypertension gestosis':ti,ab,kw OR premature:ti,ab,kw OR prematurity:ti,ab,kw OR preterm:ti,ab,kw OR 'pre-term':ti,ab,kw OR 'pre term':ti,ab,kw) AND (inpatient:ti,ab,kw OR inpatients:ti,ab,kw OR hospitalization:ti,ab,kw OR hospitalizations:ti,ab,kw OR hospitalized:ti,ab,kw OR hospitalisation:ti,ab,kw OR hospitalisations:ti,ab,kw OR hospitalised:ti,ab,kw))	414
CINAHL	((('MH "Depression+" OR (MH "Anxiety+" OR (MH "Anxiety Disorders+" OR (MH "Stress, Psychological+" OR (MH "Affective Disorders+" OR (MH "Stress Disorders, Post-Traumatic+")) AND ((MH "Expectant Mothers") OR (MH "Pregnancy+" OR (MH "Pregnancy Complications+" OR (MH "Pre-Eclampsia+" OR (MH "Labor, Premature")) AND (MH "Inpatients")) OR ((Depression OR Depressions OR Depressive OR Anxiety OR Anxieties OR Hypervigilance OR Nervous OR Nervousness OR Distress OR Distresses OR Dysphoria OR Dysphorias OR Mood OR Affective OR 'Post-Traumatic' OR 'Post Traumatic' OR Posttraumatic OR PTSD OR "Traumatic Stress") AND (Pregnant OR Pregnancy OR Pregnancies OR Antenatal OR Antepartum OR "Pre-Eclampsia" OR Preeclampsia OR "Pre Eclampsia" OR Toxemia OR Toxemias OR "Edema-Proteinuria-Hypertension Gestosis" OR "Edema Proteinuria Hypertension Gestosis" OR Premature OR Prematurity OR Preterm OR "Pre-Term" OR "Pre Term") AND (Inpatient OR Inpatients OR Hospitalization OR Hospitalizations OR Hospitalized OR Hospitalisation OR Hospitalisations OR Hospitalised))	526
PsycINFO	(Depression OR Depressions OR Depressive OR Anxiety OR Anxieties OR Hypervigilance OR Nervous OR Nervousness OR Distress OR Distresses OR Dysphoria OR Dysphorias OR Mood OR Affective OR 'Post-Traumatic' OR 'Post Traumatic' OR Posttraumatic OR PTSD OR "Traumatic Stress") AND (Pregnant OR Pregnancy OR Pregnancies OR Antenatal OR Antepartum OR "Pre-Eclampsia" OR Preeclampsia OR "Pre Eclampsia" OR Toxemia OR Toxemias OR "Edema-ProteinuriaHypertension Gestosis" OR "Edema Proteinuria Hypertension Gestosis" OR Premature OR Prematurity OR Preterm OR "Pre-Term" OR "Pre Term") AND (Inpatient OR Inpatients OR Hospitalization OR Hospitalizations OR Hospitalized OR Hospitalisation OR Hospitalisations OR Hospitalised)	124
ClinicalTrials.gov	(Depress* OR Anxiet* OR Nervous* OR Distress* OR Dysphoria* OR Mood OR Affective OR 'Post-Traumatic' OR 'Post Traumatic' OR Posttraumatic OR PTSD OR "Traumatic Stress") AND (Pregnan* OR Antenatal OR Antepartum OR "Pre-Eclampsia" OR Preeclampsia OR Toxemia* OR Prematur* OR Preterm OR "Pre-Term" OR "Pre Term")	1.477

Eligibility Criteria

All studies were assessed for eligibility. The inclusion criteria of the included studies were: (1) only studies (cross-sectional, case-control, cohort, quasi-experimental and randomized controlled trials) and studies that were conducted for purposes other than determining the prevalence of depression or anxiety in our population of interest (such as randomized clinical trials of an intervention) were included when they reported on relevant outcomes; (2) full-text articles available; and (3) published in English. The exclusin criteria were Non-English language manuscripts, mixed-methods and qualitative studies, conference abstracts, doctoral dissertations, guidelines, expert opinions, editorials, letters to the editor, and comments. The research selection was carried out in three successive phases. The titles and abstracts of all search results were initially screened and evaluated for relevance. Second, complete access was gained to all potentially eligible studies. Finally, the systematic review included only those studies that met our inclusion criteria.

Data extraction and Parameter Measured

All the authors extracted the data from the articles. The following parameters were taken into account: publication year, type of study, aims and objectives of the study, and study findings and conclusion. All disagreements regarding the methodology, article retrieval, and statistical analysis were resolved by consensus among the authors.

Results

Initially, 8,799 publications were chosen with the possibility of being included in this study, with 7,612 surviving the following exclusion by repetition. The titles and abstracts were examined, and 7,533 publications were eliminated for failing to meet the inclusion criteria suggested by these writers, leaving 79 articles. As a result, 61 item was rejected because not evaluating the focus interest and other inclusion criteria not met, left 18 publications to be read in full, all of which were included in the research (Figure 1). Table 1 presents an overview of the main findings of the selected studies.

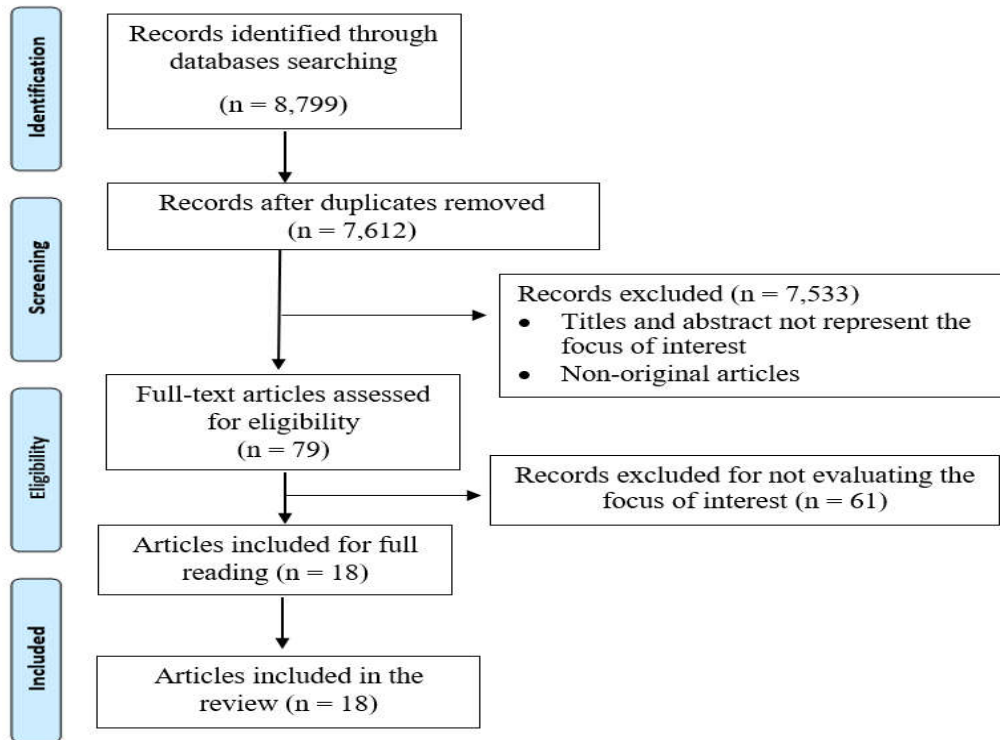


Figure 1. PRISMA flow diagram

Table 2. Summary of the studies on the depression during antepartum hospitalization

Article Citation	Objective	Study Design	Study Time, Setting, and Location	n	Instrument	Cut-off	Elevated score (%)
Araujo et al. ¹⁵ (2016)	To analyze the effects of relaxation on depression levels in hospitalized women with high-risk pregnancies.	Randomized controlled trial	April-June 2013; University Hospital, Vitória, Espírito Santo, Brazil.	23	EPDS	≥12	52.0%
Barber et al. ¹⁶ (2017)	To examine the relationship between maternal ratings of health and emotional distress and midwives' ratings of those characteristics.	Cross-sectional	July, 2009 – January, 2010; New Zealand.	68	EPDS	≥11	41.2%
Brandon et al. ¹⁷ (2008)	To evaluate depressive symptoms and known risk factors for depression in a group of women hospitalized with severe obstetric risk.	Cross-sectional	October, 2005 – December, 2006; University Hospital, Texas, USA	129	EPDS, SCID	≥11	44.2%
Byatt et al. ¹⁸ (2014)	To assess the following among women hospitalized antenatally due to high-risk pregnancies: (1) rates of depression symptoms and anxiety symptoms, (2) changes in depression symptoms and anxiety	Prospective cohort	June, 2011 – October, 2012. University Hospital, Massachusetts, USA.	62	EPDS	≥10	29.0%

	symptoms and, (3) rates of mental health treatment.						
Dagklis et al. ¹⁹ (2016)	To screen for depressive symptoms in pregnant women admitted in a high-risk pregnancy unit.	Cross-sectional	September, 2014 – November, 2015; University Hospital, Greece.	157	EPDS	≥13	28.0%
Dagklis et al. ²⁰ (2018)	To screen for depressive symptoms among pregnant women hospitalized in a high-risk pregnancy.	Cross-sectional	September, 2014 - August 2016; University Hospital, Greece.	103	EPDS	≥13	24.3%
Doty et al. ²¹ (2020)	To compare symptoms of anxiety and depression levels among 3 groups of pregnant women: 1) lowrisk outpatient, 2) high-risk outpatient, and 3) inpatient.	Cross-sectional	Not reported (abstract)	60	EPDS	≥10	30.0%
Fiskin et al. ²² (2017)	What is the level of psychosocial adaptation and frequency of depression in high-risk pregnant women.	Cross-sectional	January - May 2014; Istanbul, Turkey.	122	CES	≥16	58.2%
Gourounti et al. ²³ (2015)	To assess the emotional state (anxiety and depression) of women admitted to antenatal ward with high risk pregnancies.	Cross-sectional	February - June 2014; Two large public hospitals, Athens, Greece	133	EPDS	≥11	54.9%
Hanko et al. ²⁴ (2020)	To determine if women with or without signs of threatened preterm birth differ in depression, anxiety, and stress perception during pregnancy and in the postpartum period.	Case control	August 2015–2017; University Hospital, Dresden, Germany.	75	EPDS	≥10	49.3%
Hermon et al. ²⁵ (2019)	To estimate the risk of maternal depression among women hospitalized in a high-risk pregnancy department.	Cross-sectional	November, 2016 – July, 2017; University Hospital, Israel.	279	EPDS	≥10	28.3%
Nagle-Yang et al. ²⁶ (2019)	To examine the prevalence of depression, anxiety, attachment issues, and associated factors among pregnant women hospitalized on an antepartum unit.	Cross-sectional	January – November, 2016; University Hospital, Cleveland, Ohio, USA.	98	EPDS	≥10	35.7%
Nie et al. ²⁷ (2017)	To identify possible risk factors that contribute to resilience in women with threatened preterm labor.	Cross-sectional	March-August 2016; Three tertiary hospitals, Chongqing, Southwest China,	126	EPDS	≥13	33.3%
Thiagayson et al. ²⁸ (2013)	To determine the prevalence of major depression in high-risk pregnant inpatients	Cross-sectional	September, 2011 – March, 2012; KK Women’s and Children’s Hospital, Singapore	200	MINI	n/a	18.0%

Tsakiridis et al. ²⁹ (2019)	To determine the prevalence of depressive symptoms in women admitted to a University highrisk pregnancy unit.	Cross-sectional	August 2016, - February, 2018; University Hospital, Northern Greece	73	EPDS	≥13	32.9%
Weidner et al. ³⁰ (2010)	To determine whether a short-term psychosomatic intervention during pregnancy had effects on characteristics of labor and delivery as well as on the longterm course of anxiety depression and physical complaints in pregnant inpatient women	Randomized controlled trial	September 2003–2004. University Hospital, Dresden, Germany.	238	HADS	≥11	6.7%
Young et al. ³¹ (2017) ¹⁸	To define rates of depression and social support in a historically understudied, primarily lowincome, AfricanAmerican population.	Cross-sectional	Not reported (abstract)	50	EPDS	≥10	24.0%

Noted:

EPDS – Edinburgh Postnatal Depression Scale

HADS – Hospital Anxiety and Depression Scale

CES – Center for Epidemiologic Study Depression Scale

MINI – Mini International Neuropsychiatric Interview

Table 3. Summary of the studies on the anxiety during antepartum hospitalization

Article Citation	Objective	Study Design	Study Time, Setting, and Location	n	Instrument	Cut-off	Elevated score (%)
Byatt et al. ¹⁸ (2014)	To assess the following among women hospitalized antenatally due to high-risk pregnancies: (1) rates of depression symptoms and anxiety symptoms, (2) changes in depression symptoms and anxiety symptoms and, (3) rates of mental health treatment.	Prospective cohort	June, 2011 – October, 2012. University Hospital, Massachusetts, USA.	62	GAD	≥10	29.0%
Cornsweet Barber et al. ³² (2015)	To identify psychosocial factors associated with anxiety during pregnancy among women who are hospitalized for medical complications, as well as nonhospitalized pregnant women.	Cross-sectional	July, 2009 – April, 2010; Regional Hospital, New Zealand.	118	STAI	≥41	47.5%
Doty et al. ²¹ (2020)	To compare symptoms of anxiety and depression levels among 3 groups of pregnant women: 1) lowrisk outpatient, 2) high-risk outpatient, and 3) inpatient.	Cross-sectional	Not reported (abstract)	60	STAI	≥40	55.0%
Hanko et al. ²⁴ (2020)	To determine if women with or without signs of threatened preterm birth differ in depression, anxiety, and stress perception during pregnancy and in the postpartum period.	Case control	August 2015–2017; University Hospital, Dresden, Germany.	75	STAI	≥47	18.7%
Nagle-Yang et al. ²⁶ (2019)	To examine the prevalence of depression, anxiety, attachment issues, and associated factors among pregnant women hospitalized on an antepartum unit.	Cross-sectional	January – November, 2016; University Hospital, Cleveland, Ohio, USA.	98	STAI	≥40	46.9%

Thiagayson et al. ²⁸ (2013)	To determine the prevalence of major depression in high-risk pregnant inpatients	Cross-sectional	September, 2011 – March, 2012; KK Women’s and Children’s Hospital, Singapore	200	MINI	n/a	12.5%
Weidner et al. ³⁰ (2010)	To determine whether a short-term psychosomatic intervention during pregnancy had effects on characteristics of labor and delivery as well as on the longterm course of anxiety depression and physical complaints in pregnant inpatient women	Randomized controlled trial	September 2003–2004. University Hospital, Dresden, Germany.	238	HADS	≥11	15.5%

Noted:

- GAD – Generalized Anxiety Disorder – 7 Scale
- STAI – State-Trait Anxiety Inventory
- MINI – Mini International Neuropsychiatric Interview
- HADS – Hospital Anxiety and Depression Scale

Discussion

Women admitted to antepartum units with pregnancy problems frequently exhibit prenatal sadness or anxiety symptoms. Our systematic analysis found only a few studies that reported the longitudinal connection between hospital length of stay and mood disorder symptoms. There were trends toward increased depression symptoms with increasing hospitalization duration³³, improved depressive symptoms over the hospitalization period¹⁸, and no change in depressive symptoms over the hospitalization period³⁴. Depressive symptoms worsened in the early postpartum period after hospital discharge³⁵, eventually improving in the later postpartum period.^{24,35} In contrast, anxiety symptoms improved throughout hospitalization¹⁸ and the postpartum period after hospital discharge^{24,35}.

A few studies identified by the systematic review examined depression and anxiety rates between high-risk and high-risk outpatients. However, there was significant diversity in the types of depression and anxiety measures employed by individual research. Several studies found that antepartum outpatient groups had lower mean depression and anxiety scores or rates of a positive screen than antepartum inpatient groups.^{21,30} However, one study found that antepartum outpatients had a nonstatistically significant higher mean anxiety score, and another found no difference in depression diagnoses between high-risk antepartum outpatients and inpatients.²¹ According to our study, one in every three women will have a positive depression or anxiety screening test or diagnostic interview in the hospital. In comparison to previously reported estimates of the frequency of antenatal mood disorders in the general obstetric population, our data show that symptoms of depression and anxiety are twice as prevalent among women hospitalized in the antepartum period with pregnancy problems.

Even with planned a priori subgroup and sensitivity analysis, there was significant heterogeneity across the papers in our systematic review. There was significant clinical variability among the included studies. Subjects were hospitalized for various antepartum problems for varied lengths of stay. The presence of pre-pregnancy or antepartum mood or anxiety symptoms or disorders was neither measured nor controlled. These subject differences may impact the initial and cumulative prevalence of mood and anxiety symptoms reported in the investigations. Subjects were also selected from research conducted in various nations with varying cultural, ethnic, social, and economic characteristics. These could impact baseline rates of depression, anxiety, and symptom reporting due to disparities in universal screening rates (related to subject familiarity with screening scales) or social and mental health stigmas reducing comfort in truthful reporting. In addition, studies had significant methodological diversity that could not be accounted for in sensitivity analysis, such as heterogeneity in study objectives, subject eligibility, inclusion or exclusion criteria, the timing of administration of depression or anxiety screening scales relative to hospital length of stay, and differing cut-off values defined as a positive screening test.

Approximately 18% of the respondents (358/1998) were screened on the day of hospital admission and 34% within 72 hours of admission (680/1998), however survey administration timing relative to hospital admission was not disclosed in more than half of the studies (58%; n=1168 subjects). That suggests that our prevalence estimates may reflect more significant depression and anxiety before admission rather than the hospitalization itself. The current evidence limits our ability to draw consistent conclusions about the relationships between pre-hospitalization depression and anxiety symptoms or diagnoses and the possibility of a transient or long-term change (improvement or worsening) in depression or anxiety symptoms caused by the acute stressor of hospitalization.

Standardizing the screening and longitudinal administration time in future research would assist in clarifying the progression and duration of these symptoms during hospitalization. Furthermore, most research relied on symptom severity screening techniques and did not incorporate clinical diagnoses of depression and anxiety disorders. Instability is a challenge when monitoring symptoms alone because symptoms may fluctuate greatly throughout hospitalization, and future research should include measurement of the diagnosis of depression or anxiety through the diagnostic interview

(such as the MINI) in addition to the use of screening scales, both when characterizing pre-hospital depression or anxiety and trends over hospitalization course.

Screening rates for prenatal mental disorders are low, both in antenatal units and in the outpatient setting. Studies show that up to 50% of patients are not examined or misdiagnosed before delivery.^{36,37} Because evidence suggests that postpartum depression and anxiety disorders are often a continuum of undiagnosed or untreated antenatal mood disorders, the American College of Obstetricians and Gynecologists, American College of Nurse-Midwives, United States Preventative Services Task Force^{38,39}, and other international societies recommend antenatal screening and referral. According to our findings, universal screening at the antepartum unit should be investigated as a potential method for better identifying and treating women at risk of perinatal mood disorders. Furthermore, clinical evaluation in response to positive tests will determine whether the higher symptoms are a transitory stress response or require active intervention.

Conclusion

The current study demonstrates the prevalence of perinatal mood and anxiety disorders in women admitted to antepartum units for obstetric pregnancy complications, emphasizing the need for future research on screening protocols and intervention implementation strategies for this vulnerable population.

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