

ADDIS ABABA UNIVERSITY

COLLEGE OF HEALTH SCIENCES

SCHOOL OF NURSING AND MIDWIFERY

DEPARTMENT OF PEDATRICS AND CHILD HEALTH NURSING AND MIDWIFERY

PREVALENCE OF ANTENATAL ANXIETY AND DEPRESSION AND ASSOCIATED FACTORS AMONG HIGH-RISK PREGNANT WOMEN AT TIKUR ANBESSA SPECIALIZED HOSPITAL, ADDIS ABABA, ETHIOPIA, 2026

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THIS THESIS REPORT IS SUBMITTED TO ADDIS ABABA UNIVERSITY, COLLEGE OF HEALTH SCIENCE, SCHOOL OF NURSING AND MIDWIFERY, DEPARTMENT OF PEDIATRICS AND CHILD HEALTH NURSING AND MIDWIFERY FOR PARTIAL FULFILLMENT OF MSC DEGREE IN MATERNITY HEALTH NURSING.

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APPROVAL SHEET

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This thesis report have been done by Adugna Fikadu Abate and is accepted in its present form by the board of examiners as a satisfying thesis writing requirement for the degree of masters in Maternity Health Nursing Track.

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By my signature below, I declare and affirm that this thesis report is entirely my original work. I have followed all ethical principles of scholarship in the preparation. All scholarly matter that is included in the thesis report has been given recognition through citation. I confirm that I have cited and referenced all sources used in this document. Every effort has been made to avoid plagiarism in the preparation of this thesis. This thesis has been accepted in a partial fulfillment of the requirements for the MSc degree in Addis Ababa University, College of Health Sciences, School of Nursing and Midwifery, Department of Pediatrics and Child Health Nursing and Midwifery. It has never been presented and submitted in a whole or in part in this or any other university for the award of a degree, diploma, or other qualification certificates.

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ABBREVIATIONS AND ACRONYMS

AAU	Addis Ababa University
ACOG	American College of Obstetrics and Gynecology
ANC	Antenatal Care
EPDS	Edinburgh Postnatal Depression Scale
FMoH	Federal Ministry of Health
HADSA	Hospital anxiety sub-scale
OSSS	Oslo social support scale
SPSS	Statistical Package for Social Sciences
TASH	Tikur Anbessa Specialized Hospital
WHO	World Health Organization

ABSTRACT

Background: Pregnant women are highly susceptible to developing or relapsing mental health problems. The most common mental health problems during pregnancy are antenatal anxiety and depression, and their prevalence is higher in high-risk pregnancies.

Objective: This study aimed to assess the prevalence of antenatal anxiety and depression and associated factors among high-risk pregnant women at Tikur Anbessa Specialized hospitals in Addis Ababa, Ethiopia, 2026.

Methods: A cross-sectional study was conducted from February to April 2026 at Tikur Anbessa Specialized Hospital among 418 participants. Data were collected consecutively using Kobo toolbox and analyzed using SPSS. Anxiety, depression, and social support were evaluated using Hospital Anxiety Sub-Scale, Edinburgh Postnatal Depression Scale, and Oslo social support scale, respectively. Bivariable and multivariable logistic regression analyses identified associated factors, and findings were presented in figures, tables, and graphs.

Results: Antenatal anxiety and depression were found in 28% and 24.4% of participants, respectively. Antenatal anxiety was significantly associated with unwanted pregnancy (AOR = 3.50, 95% C.I: 1.43-8.58), abortion history (AOR = 2.49, 95% C.I: 1.43-4.35), family history of mental illness (AOR = 2.67, 95% C.I: 1.16-6.13), poor and moderate social support (AOR = 4.34, (95% C.I: 2.07-9.12), 1.92, (95% C.I: 1.10-3.35)), and being merchant (AOR = 0.32, 95% C.I: 0.10-0.99). Being housewife (AOR = 2.69, 95% C.I: 1.02-7.10), 2nd trimester pregnancy (AOR = 0.34, 95% C.I: 0.120-97), stillbirth history (AOR = 3.68, 95% C.I: 1.35-10.07), poor social support (AOR = 2.87, 95% C.I; 1.24-6.66), partner unhappiness (AOR = 2.77, 95% C.I: 1.35-5.67), and antenatal anxiety (AOR = 4.65, 95% C.I: 2.60-8.35) were significantly associated with antenatal depression.

Conclusions: Approximately three in ten and one in four participants had antenatal anxiety and depression, respectively. Health care providers should give due attention to screening for these conditions and ensure that affected women receive appropriate and timely interventions.

Keywords: Prevalence, antenatal anxiety, antenatal depression, high-risk pregnancy, pregnant women.

1. INTRODUCTION

1.1 Background

Pregnancy is usually a joyful event in women's life (1). In addition to being an essential period in women's life, it involves many biological, physical, psychological and social changes (1, 2, 3). Pregnant women are more vulnerable to developing or relapsing of anxiety, depression or other psychological disorders associated with pregnancy related physiological, psychological and social changes (3, 4, 5, 6). So maintaining a healthy mental status in pregnant women is crucial for both maternal and fetal wellbeing (7).

Antenatal anxiety and depression are the most common types of mental health problems in pregnant women (6, 8). Antenatal anxiety is a form of anxiety that develops during pregnancy and is characterized by maternal persistent fears and worries about pregnancy, delivery, baby's health, and transition to motherhood (9, 10). Antenatal depression is a mental health condition develops during pregnancy and is characterized by feelings of unhappiness, disturbed sleep, irritability, agitation, and difficulty maintaining organized daily activities (11, 12)

Even though evidence indicated that the prevalence of antenatal anxiety and depression varied across different studies, the overall study findings show that the prevalence of antenatal anxiety (3, 13) and antenatal depression (13, 14) were high in high-risk pregnant women. A high-risk pregnancy refers to a pregnancy affected by medical, obstetric, or social conditions that arise before conception or during gestation and have the potential to negatively influence maternal, fetal, or neonatal outcomes (15, 16, 17). Such types of pregnancy remain a significant global reproductive health concern (16). High-risk pregnancy increases the risk of illness and death in women, their fetus, and neonates (18). It also negatively affects the physical, emotional, and psychological well-being of mothers (15, 19). Most of the time, fear, stress, anxiety, and depression are commonly experienced in high-risk pregnancy due to possible complications associated with it (15).

The previous studies conducted in our country documented the prevalence and associated factors of antenatal anxiety and depression among all pregnant women (20, 21, 22, 23, 24, 25, 26). However, evidences regarding the prevalence and associated factors of antenatal anxiety and depression among high risk pregnant women remains limited, even though they are particularly vulnerable for developing these conditions (3, 13, 27, 28, 29).

1.2 Statement of the problem

Antenatal anxiety and depression are the commonest psychological problems during pregnancy, with a high pooled global prevalence of 37% and 27%, respectively (30). These conditions affect many mothers during pregnancy and are related to negative maternal, fetal, social and emotional outcomes (4, 6, 8). However, they have not received adequate attention as important public mental health issues (4).

The WHO identifies pregnant women as a special population that requires special attention in the management of antenatal depression (31), and the ACOG recommends that a standardized full screening of anxiety and depression at least once during pregnancy or postnatal period (32). However, the prevalence and burden of antenatal anxiety and depression remain high and mental health concerns continue to be insufficiently addressed in antenatal care globally, particularly in developing countries due to insufficient availability of mental health care (1, 4, 8, 30, 33).

Antenatal depression is a major predictor for postnatal depression (34, 35). Untreated antenatal anxiety and depression are associated with numerous adverse pregnancy outcomes of postpartum depression (6, 11, 36), preeclampsia (11), low birth weight (4, 6, 11, 37), preterm birth (4, 10, 11, 37, 38), abortion (37), reduced responsiveness to their infants (11, 37, 38), abnormal fetal development, and neonatal hypoglycemia (38). Neonates and children born from women who experienced antenatal anxiety and depression are more vulnerable to poor psychosocial, emotional, and adaptive development (39, 40, 41), as well as toddler sleep disturbances (42). These risk decreased among women received treatment and psychological counseling in the antenatal period than those who did not recive the tretment (39).

Evidence shows that high-risk pregnancy increase the risk of developing antenatal anxiety and depression compared to those with low-risk pregnancies (43). The reported prevalence rate ranging from 29 to 70% for antenatal anxiety (3, 13), and from 12.5 to 44.2% for antenatal depression (3, 13, 14). Antenatal anxiety and depression often develop in the first trimester and may persist throughout the pregnancy period among high-risk pregnancy when compared to normal pregnancy (34). In addition, evidence shows the level of antenatal anxiety in high-risk pregnancy three times higher than in normal pregnancies under the same conditions (43).

The development of antenatal anxiety and depression are adversely affect both maternal and fetal well-being (12, 14, 44), and these conditions are more common in high-risk pregnancy than in normal pregnancies (13, 14, 28, 29). However, previous studies carried out in our country have focused on anxiety and depression among all pregnant women (20, 21, 22, 23, 24, 25, 26, 45), but anxiety and depression among high-risk pregnant women have not been well explored. Therefore, this study aimed to assess the prevalence of antenatal anxiety and depression and associated factors among high-risk pregnant women attending ANC follow up at Tikur Anbessa Specialized Hospital in Addis Ababa, Ethiopia, 2026.

1.3 Significance of the study

- The findings of the study may serve as baseline evidence for policymakers and other stakeholders to conduct large scale studies that may help inform the revision of national antenatal care guidelines.
- The study findings may support efforts to ensure a positive pregnancy experience by highlighting the local burden of antenatal anxiety and depression among high-risk pregnant women.
- The study findings may help as a reference for other researchers conducting further studies on antenatal anxiety and depression among high-risk pregnant women.
- The findings of this study may support healthcare providers to understand the burden of antenatal anxiety and depression and the need to give greater attention to high-risk pregnant women to identify those with these problems and provide appropriate interventions.

2. LITERATURE REVIEW

2.1 Introduction

The 2019 Global Burden of Disease systematic analysis identified mental health disorders as included in the top ten causes of the global burden of disease. It also showed that women experiences higher rate of mental health disorder than men (46). Antenatal anxiety and depression are major psychological disorder during pregnancy (47).

Globally, the prevalence and burden of antenatal anxiety and depression are high. However, the burden is particularly higher in low-income countries due to insufficient availability of mental health care and the lack of adequate attention for antenatal depression and anxiety within the routine antenatal care (1, 4, 8, 30, 33).

Evidence showed that the vulnerability rate to develop antenatal anxiety and depression are particularly higher in women with high-risk pregnancy than those with normal pregnancies (3, 13, 14, 28, 29). If not identified early through screening and managed with timely and appropriate intervention, antenatal anxiety and depression can negatively affect maternal, fetal, and child health (4, 6, 8, 10, 11, 37, 38, 39, 40, 41, 42, 48, 49).

2.2 Prevalence of antenatal depression and anxiety

A systematic review and meta-analysis conducted at Rochester University, New York; to determine the prevalence of antenatal depression and anxiety among high-risk hospitalized pregnant women by including studies conducted in any countries up to March 2020 revealed that the estimated prevalence of antenatal depression and anxiety was 34% and 29%, respectively (13).

A study conducted in Tunisia using a cross-sectional design to determine anxiety and depression among 95 high-risk hospitalized pregnant women showed that 39% and 20% of the participants developed antenatal anxiety and depression, respectively (50).

An observational cross-sectional study conducted to assess depression and anxiety among high-risk pregnant women attending a tertiary care center in the North-eastern region of India stated that 42% of high-risk pregnant women had depression and 70% had anxiety (3).

Another study conducted at Mubende Referral Hospital in the Central Region of Uganda using a cross-sectional study design reported that 37.68% of pregnant women attending antenatal care developed symptoms of antenatal depression (37).

Moreover, some studies carried out across different parts of Ethiopia have reported that the prevalence of antenatal depression ranges from 16.8% to 37.6%, while antenatal anxiety ranges from 12.7% to 43.9% (21, 22, 23, 24, 25, 26, 45).

2.3 Factors associated with antenatal anxiety and depression

2.3.1 Socio-demographic factors associated with antenatal anxiety

A multicenter study undertaken in Italy to determine the prevalence of antenatal anxiety and its association with socio-demographic factors found that low educational level, poverty, and jobless/unemployed were significantly associated with antenatal anxiety (51).

A cross-sectional study conducted in Uganda to assess the prevalence and associated factors of antenatal anxiety indicated that women with low socio-economic status had 2.65 folds increased the odds of developing antenatal anxiety (52).

In addition, some studies carried out across different part of Ethiopia have reported that several socio-demographic factors significantly associated with antenatal anxiety were lack of formal education (AOR=3.37), being single (AOR = 2.1 to 2.29), unwanted pregnancy (AOR= 2.5), urban residency (AOR = 2.1), young age (AOR = 2.14), and low household income (AOR = 2.01) (23, 24, 25).

2.3.2 Socio-demographic factors associated with antenatal depression

A scoping review conducted at Aristotle University in Greece, based on 21 selected published literatures in 10 different countries up to 31/12/2018 to assess the prevalence and associated factors of antenatal depression among high-risk pregnancies, revealed that the prevalence of

antenatal depression was between 12.5% and 44.2%. The review identified socio-demographic factors associated with antenatal depression, including maternal age, maternal educations, living place, couple relationship, and smoking (14).

A study carried out in São Paulo, Brazil, using a cross-sectional study design among pregnant women attending a high-risk antenatal clinic revealed that 78.1% of the participants had antenatal depression, and being married reduced the odds of developing antenatal depression by 89% compared to single women (53).

Another cross-sectional study performed at the Referral Hospital of Mubende in the Central Region of Uganda reported that a socio-demographic factors significantly associated with the likelihood of antenatal depression were age ≤ 20 years (AOR=7.74) , age ≥ 35 years (AOR=3.16), and alcohol consumption (AOR=8.46) (37).

Furthermore, previous studies conducted in different part of Ethiopia have reported that several socio-demographic factors significantly associated with antenatal depression were being unmarried (AOR = 2.22 to 3), widowed (AOR= 2), not educated (AOR = 2.49), and had primary level of education (AOR = 1.8), and married but living separately (AOR= 3) (21, 22, 54).

2.4 Obstetrics factors associated with antenatal anxiety and depression

2.4.1 Obstetrics factors associated with antenatal anxiety

Furthermore, some studies conducted in different parts of Ethiopia have reported that obstetrics factors significantly associated with antenatal anxiety were unplanned pregnancy (AOR = 1.99 to 2.99), Primigravidity (AOR=1.94), history of stillbirth (AOR= 3.56) (23, 24, 25, 26, 55).

2.4.2 Obstetrics factor associated with antenatal depression

A scoping review conducted at Aristotle University in Greece, based on 21 selected published literatures in 10 different countries up to 31/12/2018 to assess the prevalence and associated factors of antenatal depression among high-risk pregnancies due to obstetrics complications, identified several obstetrics factors associated with antenatal depression; such as, thoughts on

termination of pregnancy, preeclampsia, diabetes, oligohydramnios, gravidity, parity, and threatened preterm birth(14).

A cross-sectional study conducted in Chongqing, southwest of China, which identified that second trimester pregnancy and urban residency were reduce the risk of developing antenatal depression symptom by 39% and 21.4 %, respectively. On the other hand findings obtained from this study indicated that antenatal anxiety was risk factor for antenatal depression symptoms and its risk increased when the level of anxiety level increased (56).

Another cross-sectional study conducted at Mubende referral hospital in central region of Uganda reported that obstetrics factors significantly associated with antenatal depression were previous history of abortion (AOR=4.36), preeclampsia history (AOR5.46), and unwanted pregnancy (AOR=12.59) (37).

A systemic review and meta-analysis carried out in Ethiopia, which included both published and unpublished studies until March 30, 2023, reported that the pooled prevalence of antenatal depression was 27.85%. Antenatal depression was significantly associated with unwanted pregnancies, limited social support, poverty, depression history, and history of pregnancy loss (20).

In addition, cross-sectional studies carried out in our country have reported that obstetrics factors significantly associated with antenatal depression were Primigravidity (AOR = 8.9), and unplanned pregnancy (AOR =2.7) (21, 22).

2.5 Mental health, psycho-social, and substance use related factors associated with antenatal anxiety

A study conducted at Shenzhen Baoan Women's and Children's Hospital in China to investigate the prevalence and risk factors of antenatal anxiety among first trimester Chinese pregnant women revealed that 2.54 % of the 42,013 participants developed antenatal anxiety. This study identified that smoking (AOR= 2.94), alcohol used (AOR= 1.52), and absence of family support (AOR= 2.13) were factors significantly associated with antenatal anxiety during first trimester of pregnancy (57).

A study performed in Indonesia using a cross-sectional design to explore factors associated with pregnancy-related anxiety revealed that poor social support increased the risk of developing pregnancy-related anxiety during the first trimester by approximately four times (58).

A cross-sectional study carried out in Sri Lanka to assess risk factors of antenatal anxiety found that mental illness history and poor family support increased the likelihood of developing antenatal anxiety by 2.3 times and 2.2 times, respectively (59).

Another study carried out in Penang, Malaysia using a cross-sectional design among three thousand pregnant women 20% of them developed antenatal depression symptoms. In this finding, poor social support increased the risk of developing antenatal depression symptoms by twofold (60).

Moreover, some cross-sectional studies carried out in Ethiopia showed that history of anxiety (AOR = 2.09 to 2.39) and poor social support (AOR = 2.05 to 3.434) were significantly associated with antenatal anxiety (23, 24, 25, 26).

2.1 Mental health, psycho-social, and substance use related factors associated with antenatal depression

A study carried out in Shenzhen, China, to assessed the prevalence and factors associated with antenatal depression across all trimesters revealed that drinking alcohol before pregnancy (OR= 1.83-2.23) and during pregnancy (OR= 1.44-1.82), being primiparity (OR= 0.82-0.73), having two children (OR= 0.61-0.56), and having three or more children (OR= 0.48-0.19) were associated with antenatal depression (61).

Another cross-sectional study carried out in Dakar, Senegal, revealed that having a psychiatric history approximately five-fold increased the likelihood of antenatal depression (62).

In addition, some studies in Ethiopia showed that being a housewife (AOR = 0.15), having a husband with negative feelings about pregnancy (AOR = 4.94), having a history of depression (AOR = 6.02–8.22), and poor social support (AOR = 3.34) were significantly associated with the development of antenatal depression (21, 63).

2.2 Conceptual framework

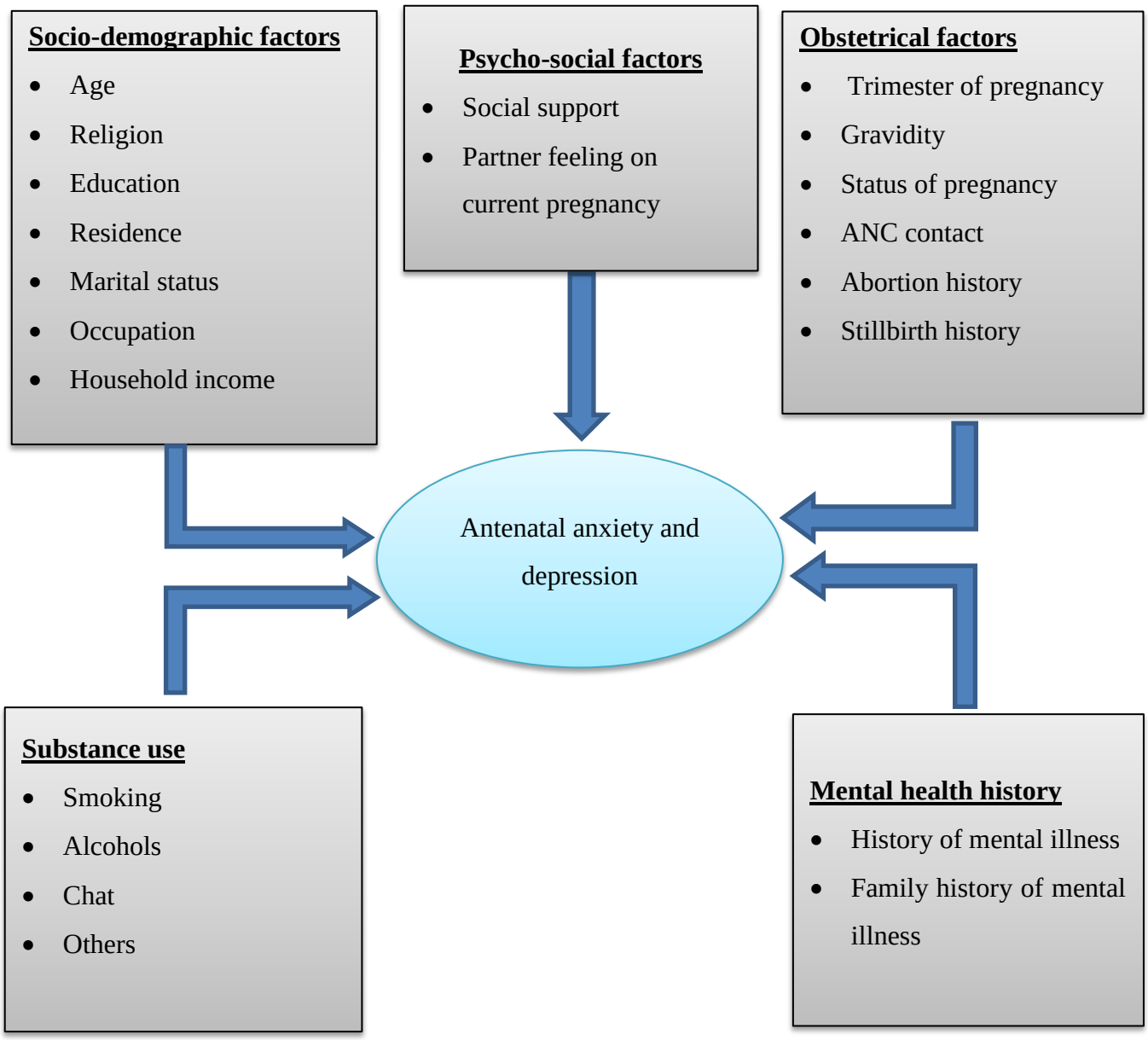


Figure 1: Conceptual frame work constructed from related literatures to assess the prevalence and associated factors of antenatal anxiety and antenatal depression among high-risk pregnant women attending antenatal care follow up at Tikur Anbessa Specialized Hospital in Addis Ababa, Ethiopia, 2026 (6, 20, 21, 22, 23, 24, 25, 26).

3. OBJECTIVES

3.1 General objective

To assess the prevalence of antenatal anxiety and depression and associated factors among high-risk pregnant women attending antenatal care follow up at Tikur Anbessa Specialized Hospital in Addis Ababa, Ethiopia, 2026.

3.2 Specific objectives

- To determine the prevalence of antenatal anxiety among high risk pregnant women attending antenatal care follow up at Tikur Anbessa Specialized Hospital in Addis Ababa, Ethiopia, 2026.
- To determine the prevalence of antenatal depression among high risk pregnant women attending antenatal care follow up at Tikur Anbessa Specialized Hospital in Addis Ababa, Ethiopia, 2026.
- To identify factors associated with antenatal anxiety among high risk pregnant women attending antenatal care follow up at Tikur Anbessa Specialized Hospital in Addis Ababa, Ethiopia, 2026.
- To identify factors associated with antenatal depression among high risk pregnant women attending antenatal care follow up at Tikur Anbessa Specialized Hospital in Addis Ababa, Ethiopia, 2026.

4. METHODS

4.1 Study setting

This study was conducted at Antenatal Care (ANC) unit of Tikur Anbessa Specialized Hospital (TASH) in Addis Ababa, Ethiopia. TASH is the leading specialized teaching and referral hospital in Ethiopia. TASH provides comprehensive antenatal, intrapartum, postpartum care, and neonatal intensive care unit service under the Obstetrics and Gynecology department. For this study, TASH was purposively selected for data collection because it provides care for a diverse group of high-risk pregnant women and receives referrals of these women from across the country, as well as from health centers and other hospitals in Addis Ababa. The ANC unit of TASH provides ANC services to more than 1,025 clients monthly (64), including an average of 465 new high-risk pregnant women per month.

4.2 Study period

The study was conducted from February 25 to April 22, 2026.

4.3 Study design

An institutional based cross-sectional study design was used.

4.4 Population

4.4.1 Source population

All pregnant women who received antenatal care services in Tikur Anbessa Specialized Hospital were the source population.

4.4.2 Study population

All high-risk pregnant women who received antenatal care services at Tikur Anbessa Specialized Hospital from February 25 to April 22, 2026, were the study population.

4.4.3 Study participants

All high-risk pregnant women who met the inclusion criteria were the study participants.

4.4.4 Eligibility criteria

4.4.4.1 Inclusion criteria

All diagnosed high-risk pregnant women attending antenatal care follow-up in the antenatal care units of Tikur Anbessa Specialized Hospital during the study period were included in the study.

4.4.4.2 Exclusion criteria

- High risk pregnant women with known psychiatric illness, and
- Critically ill high-risk pregnant women and those requiring emergency interventions were excluded from the study.

4.5 Sample size determination

The sample size of the study was calculated by using a single population proportion formula with an assumed prevalence of 50%, a 5% margin of error, a 95% confidence interval, and a 10% non-response rate. A 50% assumed prevalence was used to calculate the sample size in order to ensure adequate sample representativeness. This decision was made because of previous studies conducted in our country were carried out among the general population of pregnant women rather than high-risk pregnant women, and they reported the estimated prevalence of all pregnant women. In addition, using the prevalence estimated from studies conducted in other countries to calculate the sample size would result in a smaller sample size, which could compromise the quality and representativeness of the study.

The required sample size of the study was calculated as follow:

$$n = \frac{Z(\frac{\alpha}{2})^2 \times \mathrm{P}(1-\mathrm{P})}{d^2}$$

$$n = \frac{(1.96)^2 \times (0.5) \times (0.5)}{(0.05)^2} = 384.16 = 384$$

When a 10% non-response rate was added to the calculated minimum sample size, the final required sample size of the study was 427.

nf = n/1-r where r; non-respondent rate.

nf = 384/ (1-0.1) = 384/0.9 = 426.666.. = 427.

Where: n: a minimal required sample size

Z: a standard normal distribution corresponding to the significant level of α = 0.05

d: a margin of error, assumed to be 5%

P: prevalence assumed to be 50%, and

nf: final sample size

4.6 Sampling technique and procedure

High-risk pregnant women attending antenatal care follow-up at Tikur Anbessa Specialized Hospital who met the study eligibility criteria and provide informed consent were involved in the study. A consecutive sampling technique was used to select the study participants until the required sample-size was reached. Before data collection, data collectors were identified high-risk pregnant women by reviewing the participant medical records. After taking informed consent from the participant, data were collected in a private area after participants had completed their ANC service provided on that date, to obtain relevant information and to maintain the privacy of the participants.

4.7 Variables

4.7.1 Dependent variables

- Antenatal anxiety
- Antenatal depression

4.7.2 Independent variables

- **Socio-demographic factors:** Age, religion, educational level, residence, marital status, occupational status, household income.

- **Obstetric factors:** Trimester of pregnancy, gravidity, pregnancy status, number of ANC contact, abortion history, and stillbirth history.
- **Mental health history:** History of mental illness and family history of mental illness.
- **Psycho-social factors:** Social support and partner feeling on current pregnancy.
- **Substance use related factors:** Smoking, alcohols, chat, and others

4.8 Operational definition

High-risk pregnancy: a pregnancy complicated by one or more conditions that increase the risk of maternal, fetal, or neonatal morbidity or mortality. These conditions can be pre-existing medical conditions (heart disease, diabetes mellitus, kidney disease, thyroid disorders, lung disease, liver disease, and autoimmune diseases); demographic factors (adolescent pregnancy (≤17 years) and advanced maternal age among primigravida women (≥35 years); adverse obstetric history (history of congenital anomalies, history of pregnancy loss, obstructed labor, and previous C/S); pregnancy-related conditions (GDM, PROM, preeclampsia, placenta previa, abruptio placentae, gestational hypertension, twin or multiple pregnancies); fetal factors (fetal malpresentation in the third trimester, congenital anomalies, IUGR); and lifestyle-related factors (smoking and substance use, obesity, and malnutrition) (16, 65, 66, 67).

Antenatal anxiety: Hospital anxiety sub-scale (HADS-A) is a 7 item screening tool used to assess anxiety experienced by pregnant women. Pregnant women who score ≥8 from the possible total score of 21 were considered to have antenatal anxiety, whereas those who score below 8 were considered not to have antenatal anxiety (24).

Antenatal depression: Edinburgh Postnatal Depression Scale (EPDS) is a 10 item screening tool used to determine depressive symptoms experienced by pregnant mother in the past week. Pregnant women who score ≥ 13 on EPDS were considered to be experiencing antenatal depression; whereas those score < 13 were considered not to have antenatal depression (22, 68).

Social support: The Oslo Social Support Scale (OSSS-3) is a three-item screening tool used to assess social support. Pregnant women who score < 9 out of the total possible sum of 14

were classified as having poor social support, scores ranging from 9 to 11 were categorized as having moderate social support, and scores ≥12 were classified as having strong social support.

Partners feeling on the current pregnancy: This refers to the feeling of pregnant women about her partner emotional reaction towards current pregnancy. It was assessed by asking the women rate whether her partner felt happy or unhappy about the pregnancy (69).

4.9 Data Collection Tools, Procedure, and Methods

The data were collected through using a review of medical records and a pretested, structured, interviewer administered questionnaires adapted from a review of previous relevant literatures (6, 20, 21, 22, 23, 24, 25, 26). The questionnaire consisted of seven parts: socio-demographic factors, obstetric factors, mental health related factors, psycho-social related factors, substance use related factors, the HADS-A for screening antenatal anxiety, and the EPDS for screening antenatal depression.

Antenatal anxiety was assessed by using a Hospital anxiety sub-scale (HADS-A), which used to identify anxiety in patients who have no psychiatric disorders and aged between 16 and 65 years. It is simple to administer, requires only two to five minutes, and can be utilized by non-psychiatric health care providers. The Amharic version of the tool was validated in 2011 among HIV infected patients, with a reliability test Cronbach's alpha result of 0.78 (70). Hospital anxiety sub-scale (HADS-A) is a reliable tool to assess antenatal anxiety and has been used by Ethiopian researchers to assess antenatal anxiety (24). The scale has seven items, each scored from 0 to 3, and giving a possible total sum of 21. Pregnant women who score ≥8 are considered to have antenatal anxiety, whereas those who score below 8 are considered not to have antenatal anxiety.

Antenatal depression was assessed by using 10- items Edinburgh Postnatal Depression Scale (EPDS). The EPDS is an easily administered and validated tool for screening antenatal depression. It is an effective and efficient tool for detecting women having antenatal depression. The Amharic version of the tool was validated in 2008 among postnatal women, with 84.6% sensitivity and 77.0% specificity at a 7/8 cutoff score (71). Most studies carried out in our country have used this tool to assess antenatal depression (69, 72, 73, 74). Each item

is scored on a 4 point scale ranging from 0 to 3. Items without an * are scored from 0 to 3, whereas items marked with an * are scored reversely from 3 to 0. The total possible score, obtained by summing all items, ranges from 0 to 30. Pregnant women who score ≥13 on the EPDS are considered to have antenatal depression, where as those who score < 13 are considered not to have antenatal depression (22, 68).

The Oslo Social Support Scale (OSSS-3) was used to assess the social support of pregnant women. OSSS-3 was used to assess social support during pregnancy in Ethiopia and shown good utility (4). It consists of 3 items, with a possible total score ranging from 3 to 14 points. Women with a sum score < 9 are categorized as poor social support, those with a score ranging from 9 to 11 are categorized as moderate social support, and those with a score ≥12 are categorized as having strong social support.

4.10 Data quality management

The Data quality was assured prior to, during, and after the data collection process. Prior to data collection, a structured interviewer-administered questionnaire was developed through a review of relevant literature. First, the questionnaire was prepared in the English language, then translated into Amharic by language and content experts, and subsequently back-translated into English language by other language and content experts to ensure consistency and accuracy. The data were collected by three senior midwives who received training on the objectives and relevance of the study, data collection procedures, confidentiality of the information and informed consent. A pretest was conducted on 5% of the calculated sample size at Gahandi Memorial Hospital before the actual data collection. This was done to assess the clarity, appropriateness, and acceptances of questionnaires with in the community. Based on the findings of the pretest, some questionnaires were modified to remove ambiguity for obtaining relevant and appropriate responses. The principal investigator continuously supervised the data collection process, checked the completeness of the data, and rechecked the data before entry into SPSS. Then after the data were transferred to SPSS version 27 and each questionnaire was assigned to a non-overlapping numerical code for further analysis.

4.11 Data processing and analysis

The completeness of the collected dataset was checked and cleaned for errors and then transferred to SPSS version 27 for further analysis. The descriptive statistics (means, percentages, and frequency) were calculated. Bivariable and multivariable binary logistic regression analysis were performed to determine the association between dependent and independent variables. Those variables having a p-value of ≤ 0.25 in bivariable logistic regression analysis were considered to have an association with the dependent variables and entered to multivariable logistic regression analysis. The strength of the association was measured by using an odds ratio and interpreted using a 95% C.I and p- value < 0.05 was considered as statistically significant in multivariable analysis. Model of fit was checked by using Hosmer–Lemeshow goodness-of-fit test and the test showed that the model adequately fit the data with p-value of 0.580. Prior to performing multivariable regression analysis, multi-collinearity was checked with the Variance Inflation Factor (VIF) and the result showed all values were less than 2. Finally, the findings of the study were represented by text, figures, and tables.

4.12 Ethical considerations

Ethical approval was obtained from Addis Ababa University, College of Health Sciences, School of nursing and midwifery research ethics committee under protocol number of PCHN/MID/057/18. A written consent request to conduct the research was submitted to Tikur Anbessa Specialized Hospital. The aim of the study, the risks and benefits of the study, were clearly informed to the participants before asking their willingness. Informed consent was received from each participant before data collection. After providing informed consent, the right of the participants to refuse to give answers to some or all questions was respected. Only voluntary participants were involved in the study and their confidentiality was assured. For participants whose age was less than 18 years, assent was obtained in addition to their informed consent, and they were interviewed in a private room without their parents. The collected data were password protected and only principal investigator and the research team had an access.

4.13 Dissemination of the result

The study finding is presented to Addis Ababa University College of Health Sciences, School of Nursing and Midwifery, department of Pediatrics Child Health Nursing and Midwifery for partial fulfillment of MSc degree in Maternity Health Nursing. In addition the results will be presented at appropriate health-related conference when opportunities are available. Furthermore, the study findings will be submitted for publication in peer-reviewed journals.

5. RESULTS

5.1 Socio-demographic characteristics of the participants

In the study 418 high-risk pregnant women were participated, which made 98% response rate. The ages of the participants ranged between 17 and 48 years, with a mean age of 30.91 (± 5.647), and 61.2% of the participants were in age group of 25–34 years. More than half (58.9%) of the study participants were Orthodox in religious, followed by Muslims (29.4%) and Protestants (11.7%). Only 8 (1.9%) of the participants were not formally educated. Nearly half (48.8%) of the participants were housewives, followed by private and government employee at 19.6% and 16.7%, respectively. The majority (88.5%) of the participants was married and lived with their husbands, and almost all (93.1%) lived in urban areas. Most (87.6%) of the study participants had a monthly household income of 4000 ETB or above.

Table 1: Socio-demographic characteristics of high-risk pregnant women attending ANC follow up at Tikur Anbessa specialized Hospital in Addis Ababa, Ethiopia, 2026.

Variables	Categories	Frequency	Percent (%)
Age	15-24	51	12.2%
	25-34	256	61.2%
	≥ 35	111	26.6%
Religion	Orthodox	246	58.9%
	Muslim	123	29.4%
	Protestant	49	11.7%
Educational level	Not formally educated	8	1.9%
	1-8	136	32.5%
	9-12	135	32.3%
	College and above	139	33.3%
Occupation	Government employee	70	16.7%
	Employee at private sector	82	19.6%
	Merchant	42	10.0%
	Student	7	1.7%

	Housewife	204	48.8%
	Jobless	13	3.1%
Marital status	Married and living together	370	88.5%
	Married but living separately	31	7.4%
	Single	7	1.7%
	Divorced	7	1.7%
	Widowed	3	.7%
Residence	Urban	389	93.1%
	Rural	29	6.9%
Monthly household income	≤ 2000	36	8.6%
	2001-3999	16	3.8%
	≥ 4000	366	87.6%

5.2 Obstetrical related factors

More than half (58.4%) of the participants had 3rd trimester pregnancy, while the rest of 33.5% and 8.1% were 2nd and 1st trimester, respectively. Only 17.2% of study participants were pregnant for the first time, and 7.4% of study participant had unwanted pregnancy. More than three fourths (77.8%) of the participants had four or more ANC contact, and 37.1% and 7.2% of the study participants had a history of abortion and stillbirth, respectively.

Table 2: Obstetric characteristics of high-risk pregnant women attending ANC follow up at Tikur Anbessa specialized Hospital in Addis Ababa, Ethiopia, 2026.

Variables	Categories	Frequency	Percent (%)
Gestational age	1st Trimester	34	8.1%
	2nd Trimester	140	33.5%
	3rd Trimester	244	58.4%
Gravidity status	Primi-gravida	72	17.2%
	Multi-gravida	309	73.9%
	Grand multi-gravida	37	8.9%

Pregnancy status	Intended	253	60.5%
	Mistimed	134	32.1%
	Unwanted	31	7.4%
Number of ANC contact	< 4	93	22.2%
	≥ 4	325	77.8%
History of abortion	No	263	62.9%
	Yes	155	37.1%
History of stillbirth	No	388	92.8%
	Yes	30	7.2%

5.3 Mental health, psycho-social, and substance use related factors of the participants

Among 418 study participants, 2.6 % and 7.4% had a history of mental illness and a family history of mental illness, respectively. Nearly half (45.5%) of the participants had strong social support, followed by moderate social support (41.6%) and poor social support (12.9%). Almost one in five (19.1%) participant partners were feeling unhappy with their current pregnancy. Among the study participants, 9.3% (n = 39) used substances during pregnancy; specifically, 7.9% used alcohol and 1.4% used Chat.

Table 3: Mental, psycho-social, and substance use related factors of high-risk pregnant women attending ANC follow up at Tikur Anbessa Specialized Hospital in Addis Ababa, Ethiopia.

Variables	Categories		Frequency	Percent (%)
Mental health related factors				
History of mental illness	No		407	97.4%
	Yes		11	2.6%
Family history of mental illness	No		387	92.6%
	Yes		31	7.4%
Psycho-social factors				
Levels of social support	Strong social support		190	45.5%
	Moderate social support		174	41.6%
	Poor social support		54	12.9%
Partner feelings on pregnancy	Happy		338	80.9%
	Unhappy		80	19.1%
Substance use related factors				
Substance used during pregnancy	Yes	Alcohol	33	7.9%
		Chat	6	1.4%
	No		379	90.7%

5.4 Prevalence of antenatal anxiety

The prevalence of antenatal anxiety among 418 high risk pregnant women participated in the study was 28% (117) (95% C.I: 24-32%). The following figure shows the prevalence of antenatal anxiety among study participants.

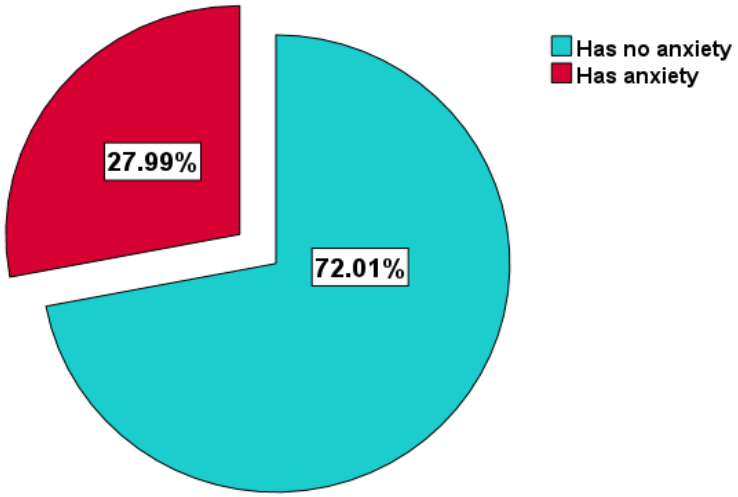


Figure 2: prevalence of antenatal anxiety among high-risk pregnant women attending ANC follow up at Tikur Anbessa Specialized Hospital in Addis Ababa, 2026.

5.5 Prevalence of antenatal depression

The prevalence of antenatal depression among 418 high risk pregnant women participated in the study was 24.4% (102) (95% C.I: 20-29%). Figure 3 shows the prevalence antenatal depression among high-risk pregnant women participated in the study.

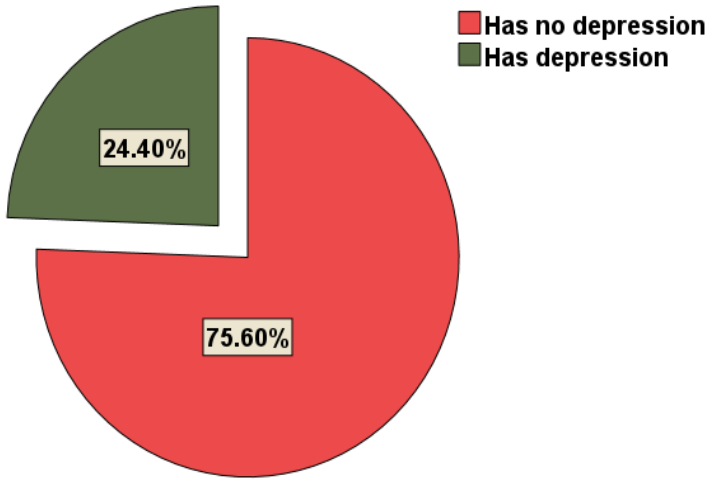


Figure 3: Prevalence of antenatal depression among high-risk pregnant women attending ANC follow up at Tikur Anbessa Specialized Hospital in Addis Ababa, 2026.

5.6 Factors associated with antenatal anxiety among high-risk pregnant women

In bivariable logistic regression analysis, only twelve of the eighteen independent variables; such as, age, religious, occupational status, monthly household income, gestational age, number of previous pregnancies, pregnancy status, history of abortion, mental illness history, family history of mental illness, levels of social support, and partner feeling about the pregnancy, were associated with the outcome variables of antenatal anxiety at p-value of ≤ 0.25. However, in multivariable binary logistic analysis, only five independent variables, namely, occupational status, status of pregnancy, abortion history, family history of mental illness, and level of social support were significantly associated with antenatal anxiety symptoms at p-value of < 0.05.

The study findings revealed that participants who had an unwanted pregnancy increased the odds of developing antenatal anxiety by three and half folds as compared with those who had planned and wanted pregnancies (AOR = 3.50, 95% C.I: 1.43-8.58). In the same manner, those participants who had abortion history had two and a half times higher odds of developing antenatal anxiety than those with no history of abortion (AOR = 2.49, 95% C.I: 1.43-4.35). The findings of the study also showed that those participants who have family history of mental illness had 2.67 times higher odds of developing antenatal anxiety than those who did not have this type of family history (AOR = 2.67, 95% C.I: 1.16-6.13). In addition, participants who had poor and moderate social support had 4.34 and 1.92 times higher odds of developing antenatal anxiety as compared to those who had strong social support, respectively (AOR = 4.34, (95% C.I: 2.07-9.12), 1.92, (95% C.I; 1.10-3.35)). On the other hand, high-risk pregnant women who were merchants in occupation status reduced the odds of developing antenatal anxiety symptoms by 68% as compared with those who were employed at government sector (AOR = 0.32, 95% C.I: 0.10-0.99).

Table 4; Factors significantly associated with antenatal anxiety among high-risk pregnant women attending ANC follow up at Tikur Anbessa specialized Hospital in Addis Ababa, Ethiopia, 2026.

Variables		Antenatal anxiety		COR (95% CI)	AOR (95% CI)	p-value
		Yes	No			
Occupation	Gov't employee	20	50	1	1	1
	Private employee	22	60	0.917 (.45, 1.869)	.731 (.323, 1.658)	0.454
	Merchant	7	35	0.5 (.191, 1.310)	.320 (.104, .989)	**0.048**
	Student	1	6	0.417 (.047, 3.684)	.976 (.083, 11.54)	0.984
	Housewife	60	144	1.042 (.572, 1.897)	.949 (.467, 1.928)	0.885
	Jobless	7	6	2.92 (0.87, 9.76)	1.772 (0.42, 7.57)	0.440
Pregnancy status	Intended	59	194	1	1	1
	Mistimed	41	93	1.45 (0.91, 2.32)	1.25 (0.71, 2.19)	0.445
	Unwanted	17	14	3.99 (1.86, 8.58)	3.50 (1.43, 8.58)	**0.006**
Abortion history	No	59	204	1	1	1
	Yes	58	97	2.07 (1.34, 3.20)	2.49 (1.43, 4.35)	**0.001**
Family mental illness Hx	No	102	285	1	1	1
	Yes	15	16	2.62 (1.25, 5.49)	2.67 (1.16, 6.13)	**0.021**
Social support	Strong	37	153	1	1	1
	Moderate	55	119	1.91 (1.18, 3.09)	1.92 (1.10, 3.35)	**0.021**
	Poor	25	29	3.57 (1.87, 6.79)	4.34 (2.07, 9.12)	< **0.001**

5.7 Factors associated with antenatal depression among high-risk pregnant women

In bivariate logistic analysis, fifteen variables from the nineteen independent variables, namely age, education, occupation, marital status, gestational age, numbers of ANC contact, status of pregnancy, abortion history, stillbirth history, history of mental illness, family history of mental illness, levels of social support, partner feeling about pregnancy, substance use, and status of antenatal anxiety were associated with the outcome variables of antenatal depression at p-value of ≤ 0.25. However, in multivariable binary logistic analysis, only six independent variables were significantly associated with antenatal depression at p-value of < 0.05. These variables are occupational status, gestational age, history of stillbirth, level of social support, partner felling on pregnancy, and status of antenatal anxiety.

The study findings indicate that participants who were housewife in occupational status had 2.69 times higher odds of developing antenatal depression as compared with those who employed in the government sector (AOR = 2.69, 95% C.I; 1.02-7.10). Similarly, participants who had a stillbirth history had 3.68 fold higher odds of developing antenatal depression than those with no such type of history (AOR = 3.68, C.I; 1.35-10.07). In the same manner, the findings indicate that participants who had poor social support had 2.87 times higher odds of developing antenatal depression when compared with those who had strong social support (AOR = 2.87, 95% C.I; 1.24-6.66). In addition, participants who had unhappy partners regarding the pregnancy and those who had antenatal anxiety symptoms had 2.77 and 4.65 times higher odds of developing antenatal depression, respectively, compared with those who had happy partners and no antenatal anxiety (AOR = 2.77, (95% C.I: 1.35-5.67), 4.65, (95% C.I: 2.59-8.35)). On the other hand high-risk pregnant women who were in the 2nd trimester of pregnancy had reduced the odds of developing antenatal depression by 66% as compared with those who were in the 1st trimester pregnancy (AOR = 0.34, 95% C.I: 0.12-0.97).

Table 5: Factors significantly associated with antenatal depression among high-risk pregnant women attending ANC follow up at Tikur Anbessa Specialized Hospital in Addis Ababa, Ethiopia, 2026.

Variables		Antenatal depression		COR (95% C.I)	AOR (95% C.I)	p-value
		Yes	No			
Occupational status	Gov't employee	11	59	1	1	1
	Private employee	19	63	1.62 (0.71, 3.68)	1.48 (0.53, 4.16)	0.458
	Merchant	5	37	0.73 (0.23, 2.25)	0.89 (0.22, 3.60)	0.872
	Student	2	5	2.15 (0.37, 12.49)	7.81 (0.92, 66.11)	0.059
	Housewife	58	146	2.13 (1.05, 4.34)	2.69 (1.02, 7.10)	**0.045**
	Jobless	7	6	6.26 (1.76, 22.20)	7.05 (0.78, 63.44)	0.081
Gestational age	1st trimester	16	18	1	1	1
	2nd trimester	30	110	0.31 (0.14, 0.67)	0.34 (0.12, 0.97)	**0.044**
	3rd trimester	56	188	0.34 (0.16, 0.70)	0.37 (0.11, 1.22)	0.103
Stillbirth history	No	89	299	1	1	1
	Yes	13	17	2.57 (1.20, 5.49)	3.68 (1.35, 10.07)	**0.011**
Social support	Strong	37	153	1	1	1
	Moderate	41	133	1.28 (0.77, 2.11)	1.01 (0.53, 1.92)	0.989
	Poor	24	30	3.31 (1.73, 6.31)	2.87 (1.24, 6.66)	**0.014**
Partner feeling	Happy	62	276	1	1	1
	Unhappy	40	40	4.45 (2.65, 7.47)	2.77 (1.35, 5.67)	**0.005**
Antenatal anxiety	No	43	258	1	1	1
	Yes	59	58	6.10 (3.76, 9.92)	4.65 (2.59, 8.35)	< **0.001**

6. DISCUSSION

The WHO recommends that antenatal care should include the provision of emotional and psycho-social supports in a respectful way to ensure a positive pregnancy experience, in addition to other ANC services provided to pregnant women (75). However, evidence shows that the prevalence of mental health problems; particularly the most common antenatal anxiety and depression were not well screened and did not receive effective treatment (4, 6). In addition, evidence indicates that high-risk pregnant women are more vulnerable to develop antenatal anxiety and depression compared with normal pregnant women (3, 13, 14). Therefore the aim of the study was to assess the prevalence of antenatal anxiety and depression and associated factors among high-risk pregnant women attending ANC follow up at Tikur Anbessa Specialized Hospital in Addis Ababa.

The findings of the study revealed that 28% of high-risk pregnant women had antenatal anxiety. This is higher than the 12.7% obtained from a study conducted at Addis Ababa public health centers among all pregnant women who were visiting ANC clinics (24). This difference may be related to the fact that this study was exclusively conducted among high-risk pregnant women, who are more vulnerable to developing antenatal anxiety than those with normal pregnancies (15, 43). On the other hand, this prevalence was lower than the 39% reported in a similar study conducted among 95 high-risk hospitalized pregnant women in Tunisia (50). This might be related to the fact that hospitalization increases the risk of developing anxiety (76, 77), differences in sample size, or cultural variations.

In this study, women with unwanted pregnancy had three and a half times higher odds of developing antenatal anxiety than those who had planned and wanted pregnancy. This finding was consistent with similar studies conducted in Ethiopia; Dessie town and Bedelle General and Mettu Karl Compressive specialized hospital, both of which indicated that unwanted pregnancy was significantly associated with antenatal anxiety, with an AOR of approximately 2.8 in each study (25, 26). This may be due to unwanted pregnancy may cause pregnant women to become pregnant without financial, social, and emotional readiness (78).

There is a systematic review which clearly identified a history of pregnancy loss as one of the great risk factors for antenatal anxiety (79). Similarly this study showed that a history of abortion was significantly associated with antenatal anxiety, with two and half times higher odds of developing antenatal anxiety than those who had no abortion history. This may be due to the fact that women fear that the current pregnancy may not continue and may end in an abortion, like a previous one (80).

This study revealed that a family history of mental illness increased the odds of developing antenatal anxiety by 2.67 fold. Another cross-sectional study conducted at Bale zone in Ethiopia strengthened this finding by reported that a family history of psychiatric illness had more than three times higher odds of developing common mental disorders of antenatal anxiety and antenatal depression (81). This might happen because those women who have a family history of mental health are genetically predisposed to developing anxiety disorders (82).

There are several cross-sectional studies reported that poor social support was significantly associated with antenatal anxiety, with two to four fold increase in the odds of developing antenatal anxiety compared with those who had strong social support (23, 25, 26, 57, 58, 59). Similarly, this finding showed that participants with poor and moderate social support had 4.34 and 1.92 times higher odds of developing antenatal anxiety, respectively than those who had strong social support. This may be related with women who have poor social support may feel loneliness, lack emotional support, and lack support from others when they need it (83).

On the other hand, this finding indicated that being a merchant decreased the odds of developing antenatal anxiety by 68% when compared with government employees. Even though we could not find studies that support or oppose this result, this might be due to being a merchant gives economic freedom, which leads life satisfaction, feeling free from others' orders, and able to gain adequate rest when needed (84).

The study found that the prevalence of antenatal depression among high-risk pregnant women was 24.4%. This is consistent with the prevalence of another study conducted in Addis Ababa health centers among all pregnant women, which was 24.9% (69). However, most studies conducted in different parts of Ethiopia revealed that the prevalence of antenatal depression

was less than this finding (22, 63, 85, 86, 87, 88, 89, 90). This deference may be related to the presence of variations in the study population. This study was conducted among high-risk pregnant women who were more vulnerable to developing antenatal depression (14, 15, 43), while the other studies were conducted among all pregnant women.

Being housewife was significantly associated with antenatal depression, with 2.69 time's higher odds of developing antenatal depression as compared with government employees. This finding is strengthen by a similar study conducted in northwest part of Ethiopia, which showed that being employee reduced the odds of developing antenatal depression by 85% than housewives (63). This might be related with being a housewife is associated with lack of personal income, financial dependence, and limited social interaction (91).

In this study, a stillbirth history was significantly associated with antenatal depression. Study participants who had a history of stillbirth had 3.68 times higher odds of developing antenatal depression. Consistently, a similar study conducted in the northeast part of Ethiopia showed that women with a history of stillbirth had 3.56 times higher odds of developing antenatal depression (55). This finding may be due to pregnant women with a history of stillbirth may experience posttraumatic stress disorder (92), or fear that the current pregnancy will end in stillbirth, like the previous one (93).

There are many studies conducted in Ethiopia and other countries that have identified that poor social support was significantly associated with antenatal depression (21, 60, 94, 95). The finding of our study also showed that participants who had poor social support had 2.87 fold higher odds of developing antenatal depression than those participants with strong social support. This might be associated with feelings of loneliness, lack of emotional support, and lack of support from others when they need it (83).

In the study, participants whose partners were unhappy about the pregnancy had 2.77 fold higher odds of developing antenatal depression than those whose partners were happy. This is supported by a similar study conducted in northwest parts of Ethiopia, which revealed that pregnant women whose husband had poor feeling towards pregnancy had five times higher odds of developing antenatal depression (63). This might be related with pregnant women whose partners have negative feelings about the pregnancy may not receive adequate

financial, social, and emotional support from their partners, and may feel loneliness and rejection by their partners.

In addition, participants who had antenatal anxiety had 4.67 times higher odds of developing antenatal depression. A similar study conducted in Chongqing, southwest China, strongly supported this result by clearly showing that antenatal anxiety increased the odds of developing antenatal depression, and the odds increased as the level of anxiety increased (56). This may be related to persistent felling of anxiety will be changed to mood disorders of depression (96).

On the other hand, the 2nd trimester pregnancy had reduced the odds of developing antenatal depression by 66% as compared with 1st trimester pregnancy. This is in line with a similar study conducted in Chongqing, southwest of China, which identified that 2nd trimester pregnancy reduced the odds of developing antenatal depression by 39% compared with first trimester pregnancy (56). This might be the fact that pregnant women in the first trimester of pregnancy are exposed to sudden changes in reproductive hormones, and minor symptoms of pregnancy, such as mood changes, nausea, vomiting, loss of appetite, and sleeping disturbances are more common during 1st trimester (97).

7. LIMITATIONS AND STRENGTHS OF THE STUDY

7.1 Limitations of the study

The first limitation of the study is that it did not incorporate a qualitative method, which could have helped to assess lived experiences of the participants and how the identified factors emotionally and socially affected women, which cannot be assessed using quantitative methods. Secondly, a consecutive sampling method was applied to collect the data, which may reduce the representativeness of the study findings. Another limitation of the study was that, even though the study participants were considered well represented, the study was conducted only in one institution.

7.2 Strengths of the study

As strength the study was used local language validated international tools to assess the dependent variables. Other Strength of the study was that, as far as our search showed, it was the first study conducted in our country among high-risk pregnant women who were vulnerable to developing antenatal anxiety and depression.

8. CONCLUSIONS AND RECOMMENDATIONS

8.1 Conclusions

Approximately three in ten and one in four high-risk pregnant women developed antenatal anxiety and depression, respectively, which is higher than the prevalence reported in most studies conducted in our country among the general population of pregnant women. Variables significantly associated with antenatal anxiety were being merchant, unwanted pregnancy, history of abortion, family history of mental illness, poor and moderate social support. Whereas, being housewife, second trimester pregnancy, stillbirth history, poor social support, partner feeling unhappy about pregnancy, and antenatal anxiety were significantly associated with antenatal depression.

8.2 Recommendations

For Federal Ministry of Health

At the Federal Ministry of Health (FMoH) level, further efforts are needed to confirm the findings of this study. This work may serve as a baseline for large-scale studies to determine the burden of antenatal anxiety and depression among high-risk pregnant women. Following confirmation, FMoH should consider incorporating appropriate screening tools into routine ANC services for early identification of the affected women.

For Health care providers

All health care providers involved in antenatal care (ANC) services should understand antenatal anxiety and depression are common among high-risk pregnant women. Therefore, they should give due attention to screening for antenatal anxiety and depression and ensure that women identified with these conditions receive appropriate and timely interventions.

For researchers

Antenatal anxiety and depression are common mental health problems, particularly among women with high-risk pregnancies. Therefore, researchers should conduct mixed-methods studies to identify additional risk factors that cannot be adequately assessed through quantitative methods alone.

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10. ANNEX

10.1 Annex I: Information sheet

I am an MSc student at Addis Ababa University, College of health science, Department of Pediatrics and Child health Nursing and Midwifery. I will be conducting research at Tikur Anbessa Specialized Hospitals of Addis Ababa University, Ethiopia, 2026. After getting your permission for participation, I will give you all the necessary information regarding the study. Thus, the information will be detailed as follow;

Purpose of the study: This study is aimed to assess the prevalence and associated factors of antenatal anxiety and depression among high-risk pregnant women attending antenatal care follow up at Tikur Anbessa Specialized Hospital of Addis Ababa University, Ethiopia 2025/2026.

Risk: The study will be carried out by asking your permission with already prepared and structured questionnaire. There will be no physical or psychological harm during the procedure. Besides, you have full right to stop any time you wish and you won't be obliged to give any information which you don't want to answer.

Benefits: For being involved in this study, there is no payment you will be granted with and no special privilege is also given to you. Perhaps, participating and giving information for the questions being asked plays vital role in the effort made to improve quality of antenatal care that will decrease maternal, neonatal, and child morbidity and mortality.

Confidentiality: Any information you give will be kept confidential and won't be accessible to any third party. Your name won't be mentioned anywhere. The information you give is only used for research purpose.

Consent: Your participation in this study will totally be on the basis of your willingness. You can stop anywhere you wish to stop participation, even from the very beginning. No one will force you to give information you don't want to give. Finally, I duly acknowledge your participation and either response.

Name: _____ signature: _____ date: _____

Principal investigator: Adugna Fikadu

Contact address: Cell phone: +251948792857 E-mail: adufk974@gmail.com

Greetings!!!

10.2 Annex II: Participant informed consent sheet

Hello! My name is Adugna Fikadu. I am currently a postgraduate student at Addis Ababa University, College of Health Science, Department of Pediatrics and Child health Nursing and Midwifery.There is a research to be conducted here in Tikur Anbessa Hospitals of Addis Ababa University. I will be undertaking a research aimed to assess the prevalence and associated factors of antenatal anxiety and depression among high-risk pregnant women attending antenatal care follow up at Tikur Anbessa Specialized Hospital of Addis Ababa University, Ethiopia 2025/2026.

As part of this survey, relevant information on socio-demographic factors and obstetric history will be obtained. Therefore, you are kindly requested to participate in this study and provide the information required.

Your participation in this study is completely on voluntary bases and you have a right to refuse, to take part or to stop giving information at any time. For your participation in the study, no payment will be granted or has no any special privilege to you. Besides, you're not obligated to answer any question which you do not wish to answer. If you fill discomfort to respond to any of the questions, please feel free to drop it any time you wish to do so. I assure you that your name will not be mentioned in anywhere. Filling the questionnaire will take about 30 minutes. The information that you give me will be kept confidential and won't be accessible to a third party; only be used for the research purpose and burnt at the end of the survey.

Could I have your permission to continue?

1. Yes 2. No, Stop and thank the respondent.

Witness's signature certifying that the informed consent has been given

Witness: Signature_____ Date _____

Data collector: Name_____ Signature _____

Date_____

10.3 Annex III: English version questionnaire

Questionnaire No_____

Date: _____

Interviewer: _____ sign_____

Supervisor _____ sign _____

The questionnaire has seven parts and for each question; there is column for the response.

Thank you for your participation!

Part I: Questionnaire that assess the socio-demographic factors of participants

Questions	**Alternative responses**
Age	_____
Religion	1. Orthodox 2. Muslim 3. Protestant 4. Others
Educational level	1. Not formally education 2. 1-8 3. 9-12 4. College and above
Occupation	1. Government employee 2. Employee at private sector 3. Merchant

	4. Student 5. Housewife 6. Jobless
Marital status	1. Married and living together 2. Married but living separately 3. Single 4. Divorced 5. Widowed
Residence	1. Urban 2. Rural
Monthly household income	_____

Part II: Questionnaire that assess obstetrics characteristics

Questions	**Answers**
Gestational age	_____
Number of previous pregnancies	_____
Status of pregnancy	1. Intended 2. Mistimed 3. Unwanted
Number of ANC contact	_____

Do you have a history of abortion?	1. Yes 2. No
Do you have a history of still birth?	1. Yes 2. No

Part III: Questionnaire that assess clinical characteristics of the participants

Item no.	Questions	Response options
1	Have you ever been diagnosed with or treated for a mental illness prior to this pregnancy?	1. Yes 2. No
2	Do you know any of your family members have ever been diagnosed with or treated for a mental illness?	1. Yes 2. No

Part IV: Questionnaire that assess psycho-social support

Oslo Social Support Scale (OSSS-3)						
Item no.	**Questions**	**Response options**				
1	How many people are so close to you that you can count on them if you have great personal	None	1-2	3-4	5+	

	problems?					
2	How much interest and concern do people show in what you do?	None	Little	Uncertain	Some	A lot
3	How easy is it to get practical help from neighbors if you should need it?	Very difficult	Difficult	Possible	Easy	Very easy
Partner felling on current pregnancy						
Your partners feeling on current pregnancy.		1. Unhappy 2. Happy				

Part V: Questionnaires that assess the participant behaviors of substance used

Item no.	Questions	Response options
1	Have you used any type of substance during this pregnancy?	1. Yes 2. No
2	If your answer to question No 1 is yes, what type/types of substance did you use during this pregnancy?	1. Smoking (cigarettes/shisha) 2. Alcohol 3. Chat 4. Other : specify_____

Part VI: 7-Items Hospital anxiety sub-scale (HADS-A) used to assess antenatal anxiety.

No.	Questions	Response options			
1	Have you feel tense or "wound up"?	Most of the time	A lot of the time	From time to time, occasionally	Not at all
2	Do you get a sort of frightened feeling, as if something awful is about to happen?	Very definitely and quite badly	Yes, but not too badly	A little, but it doesn't worry me	Not at all
3	Do worrying thoughts go through your mind	A great deal of the time	A lot of the time	From time to time, but not too often	only occasionally
4	Can you sit at ease and feel relaxed	Definitely	Usually	Not often	Not at all
5	Do you got a sort of frightened feeling like "butterflies" in the stomach?	Not at all	Occasionally	Quite often	Very often
6	Do you feel restless, as if you have to be on the	Very much indeed	Quite a lot	Not very much	Not at all

	move?				
7	Do you get sudden feelings of panic?	Very often indeed	Quite often	Not very often	Not at all

Part VII: 10-items Edinburgh Postnatal Depression Scale (EPDS)

No.	Question	Responses options			
1	In the past 7 days, have you been able to laugh and see the funny side of things?	As much as you always could	Not quite so much now	Definitely not so much now	Not at all
2	In the past 7days, have you looked forward with enjoyment to things?	As much as you ever did	Rather less than you used to	Definitely less than you used to	Hardly at all
*3	In the past 7 days, have you blamed yourself unnecessarily when things went wrong?	Yes, most of the time	Yes, some of the time	Not very often	No, never
4	In the past 7 days, have you been anxious or worried for no good reason?	No, not at all	Hardly ever	Yes, sometimes	Yes, very often

*5	In the past 7 days, have you felt scared or panicky for no very good reason?	Yes, quite a lot	Yes, sometimes	No, not much	No, not at all
*6	In the past 7 days, have things been getting on top of you?	Yes, most of the time you haven't been able to cope at all	Yes, sometimes you haven't been coping as well as usual	No, most of the time you have copied quite well	No, you have been coping as well as ever
*7	In the past 7 days, have you been so unhappy that you have had difficulty sleeping?	Yes, most of the time	Yes, sometimes	Not very often	No, not at all
*8	In the past 7 days, have you felt sad or miserable?	Yes, most of the time	Yes, quite often	Not very often	No, not at all
*9	In the past 7 days, have you been so unhappy that you have been crying?	Yes, most of the time	Yes, quite often	Only occasionally	No, never
*10	In the past 7 days, have the thought of harming yourself	Yes, quite often	Sometimes	Hardly ever	Never

	occurred to you?				

10.4 Annex IV: Amharic version of Information sheet

እኔ በአዲስ አበባ ዩኒቨርሲቲ ጤና ሳይንስ ኮሌጅ የሕፃናት እና ልጆች ጤና ሕክምና ነርሲንግ እና ሚድዋይፍሪ ትምህርት ክፍል የሁለተኛ ዲግሪ ተማሪ ነኝ። የምርምር ጥናቴን በ2026 ዓ.ም በአዲስ አበባ ዩኒቨርሲቲ ጥቁር አንበሳ ስፔሻላይዝድ ሆስፒታል ዉስጥ እከናውናለሁ። እርስዎ በጥናቱ ለመሳተፍ ፈቃደኛ ከሆኑ፣ ስለ ጥናቱ አስፈላጊ መረጃዎችን በሙሉ እሰጥዎታለሁ። ዝርዝሩም እንደሚከተለው ይቀርባል፡-

የጥናቱ ዓላማ፡ ይህ ጥናት በ 2018 ዓ.ም. በአዲስ አበባ ዩኒቨርሲቲ ጥቁር አንበሳ ስፔሻላይዝድ ሆስፒታል የእርግዝና ክትትል አገልግሎት የሚከታተሉ ከፍተኛ አደጋ ያላቸው ነፍሰ ጡር እናቶች መካከል በእርግዝና ጊዜ የሚከሰት ጭንቀትና ድባቴ መጠንን እና ከእነዚህ ጋር የተያያዙ ምክንያቶችን ለመገምገም የታቀደ ነው።

አደጋ፡ ይህ ጥናት ፈቃድዎን ካገኘን በኋላ ቀድሞ ተዘጋጅቶ የተዋቀረ መጠይቅን በመጠቀም ይከናወናል። በጥናቱ ሂደት ውስጥ ምንም ዓይነት አካላዊ ወይም ስነ-ልቦናዊ ጉዳት አይኖርም። በተጨማሪም፣ በማንኛውም ጊዜ ከጥናቱ ለመውጣት ሙሉ መብት አለዎት፣ እንዲሁም መመልስ ለመስጠት ያልፈለጉትን ጥያቄ መልስ አለመስጠት ይችላሉ።

ጥቅሞች፡ በዚህ ጥናት በመሳተፍዎ ምንም ዓይነት ክፍያ ወይም ልዩ ጥቅም አይሰጥዎም። ነገር ግን፣ ተሳትፎዎ እና የምትሰጡት መረጃ በእርግጥ አስፈላጊ ናቸው፣ ምክንያቱም የእርግዝና አገልግሎት ጥራትን ለማሻሻል የሚደረጉ ጥረቶች ላይ ትርጉም ሊኖረው ይችላል፣ ይህም የእናቶችን፣ የሕፃናትን እና የልጆን ሕመም እና ሞት እንዲቀነስ ሊረዳ ይችላል።

የመረጃ ምስጢራዊነት፡ እርስዎ የሚሰጡት ማንኛዉም አይነት መረጃ በጥብቅ ይጠበቃል እና ለማንኛውም ሶስተኛ ወገን ጋር አይገናኝም። ስምዎ በማናቸውም ቦታ አይገለጽም። የምትሰጡት መረጃም ለጥናት አላማ ብቻ ያገለግላል።

ፈቃድ: ተሳትፎዎ በዚህ ጥናት ሙሉ በሙሉ በእርስዎ ፈቃድ ይሆናል። በማንኛውም ጊዜ ከጥናቱ መውጣት ይችላሉ፣ እንደጀመሩም እንኳ ቢሆን። እርስዎ ማጋራት የማይፈልጉት መረጃ ካለ መረጃ እንዲሰጡ ማንም አያስገድድዎትም። ተሳትፎዎን በመፈቃድዎ መብቶችዎን በግልጽ በመረዳት እና በፈቃድዎ እንደተሳተፉ ታረጋግጣላችሁ።

ስም: _____ ፊሪማ: _____ ቀን: _____

ዋና የጥናቱ ተከታታይ: አዱኛ ፍቃዱ

የመገኛ አድራሻ: ስልክ ቁጥር: +251948792857 ኢሜይል: adufk974@gmail.com

ከሰላምታ ጋር!!!

10.5 Annex V: Amharic version of participant informed consent sheet

ሰላም! እኔ አዱኛ ፍቃዱ እባላለሁ። አሁን በአዲስ አበባ ዩኒቨርሲቲ ጤና ሳይንስ ኮሌጅ የሕፃናት እና ልጆች ጤና ሕክምና ነርሲንግ እና ሚድዋይፍሪ ትምህርት ክፍል የሁለተኛ ዲግሪ ተማሪ ነኝ። በእዚህ በአዲስ አበባ ዩኒቨርሲቲ ጥቁር አንበሳ እስፔሻላይዝድ ሆስፒታል ላይ የሚፈፀም ጥናት አለ። ይህ ጥናት በ 2018 ዓ.ም. በአዲስ አበባ ዩኒቨርሲቲ ጥቁር አንበሳ ስፔሻላይዝድ ሆስፒታል የእርግዝና ክትትል አገልግሎት የሚከታተሉ ከፍተኛ አደጋ ያላቸው ነፍሰ ጡር እናቶች መካከል በእርግዝና ጊዜ የሚከሰት ጭንቀትና ድባቴ መጠንን እና ከእነዚህ ጋር የተያያዙ ምክንያቶችን ለመገምገም የታቀደ ጥናት ነው።

በዚህ የጥናት ምርመር ላይ ስለሚያስፈልጉ ማህበራዊ-ዲሞግራፊ መረጃዎች፡ ስለእርግዝናዎ ታሪክ መረጃዎች እና ስለ ጤና ነክ መረጃዎች መሰብሰብ ይካሄዳል። ስለዚህ፣ በዚህ ጥናት ላይ ተሳትፎ እንዲያደርጉ እና አስፈላጊዉን መረጃ እንዲሰጡን የእርሰዎን ፈቃድ እንጠይቃለን።

የአርስዎ ተሳትፎ በዚህ ጥናት ላይ ሙሉ በሙሉ በፈቃድዎ ላይ ብቻ የተመሰረተ መሆን አለበት፣ ስለዚህ ተሳትፎ ማድረግን፤ አለመሳተፍ ወይም መረጃ መስጠትን በማንኛውም ጊዜ የማቆም መብት እንዳለዎት እናሳስብዎታለን። በጥናቱ ላይ ተሳትፎ ሲያደርጉ ምንም አይነት የገንዘብ ክፍያ አይሰጥዎትም እና ልዩ ጥቅምም አይኖርዎትም። ከሚጠየቁት ጥያቄዎች ዉስጥ መልስ መስጠት የማይፈልጉ ከሆን ያለመመለስ መብት አለዎት። ማንኛውንም ጥያቄ በሚመልሱ ሰዓት ጥሩ ስሜት ካለተሰማዎ በፈቃድዎ በማንኛውንም ጊዜ ማቋረጥ ይችላሉ። ስምዎ በማንኛውም ቦታ እንደማይጠቀስ ልናረጋግጥልዎት እንዎዳለን። ጥያቄዎችን ለመሙላት እስከ 30 ደቂቃ ድረስ ሊወስድ ይችላል። የሚሰጡኝ መረጃዎች ሁሉ በሚስጥር የሚያዙ ስለሆኑ ለሶስተኛ ወገን አይደርሱም፤ በጥናቱ ለሚፈለገው ዓላማ ብቻ የሚዉሉ ይሆናሉ፣ በጥናቱ መጨረሻም የሚቃጠሉ ይሆናሉ።

10.6 Annex VI: Amharic version of the questionnaire

የመጠይቅ መለያ ቁጥር_____

የቅድመ ወልድ የእናቶችን መጨናነቅ እና ድባቴ ጋር የተያያዙ ስሜቶች ለመዳሰስ የሚረዱ መጠይቆች።

መመሪያ፤ ከተጠየቀዉ ጥያቄ ጋር የሚመሳሰለውን መልስ ይመልሱ።

ክፍል 1፤ የተሳታፊዎችን ማህበራዊና እና ዲሞግራፊያዊ ሁነቶችን የሚዳስሱ ጥያቄዎች

ተራ.ቁ	**ጥያቄ**	**መልስ**
101	እድሜዎ በዓመት ስንት ነዉ?	----------
102	ሀይማኖትዎ ምንድን ነዉ?	ሀ. ኦርቶዶክስ ለ. ሙስሊም ሐ.ፕሮቴስታንተት መ. ሌላ ካለ ይጠቀስ……
103	የትምህርት ደረጃዎ?	ሀ. መደበኛ ትምህርት ያልተማሩ ለ. ከ1 እስከ 8 የተማሩ ሐ. ከ9 እስከ 12 የተማሩ መ. ኮሌጅ እና ከዚያ በላይ የተማሩ
104	የእርስዎ የስራ ሁኔታ ምን ይመስላል	ሀ. የመንግስት ሰራተኛ ለ. የግል መስሪያቤት ላይ ተቀጥረዉ የሚሰሩ ሐ. ነጋዴ መ. ተማሪ

		ሠ. የቤት እመቤት ረ. ስራ የሌለዉ
105	የጋብቻ ሁኔታ?	ሀ. ያገባች እና ጋር አብረዉ የሚኖሩ ለ. ያገባች ግን ባለቤቷ ጋር አብረዉ የማይኖሩ ሐ. ያላገባች መ. የተፋታች ሠ. ባሏ የሞተባት
106	የመሚኖሩበት ቦታ የት ነዉ	ሀ. ከተማ----------1 ለ. ገጠር----------2
107	ወርሀዊ የቤትሰብ አማካይ ገቢ በብር ምን ያክል ነዉ	----------

ክፍል 2፤ ከእርግዝና እና ወሊድ ጋር የተገናኙ መጠይቆች

ተ.ቁ	**ጥያቄ**	**መልስ**
201	የአሁኑ እርግዝና ጊዜዉ በሳምነት (ካርድ ላይ መረጃዉን በማየት)	--------
202	ከዚህ በፊት ስንት እርግዝና ነበረዎት?	--------

203	የእርግዝናዉ ሁኔታ ምን ይመስላል?	ሀ. የሚፈለግ እና ታስቦብት የተረገዘ ለ. የሚፈለግ ግን ባለታሰበበት ሰዓት የተረገዘ ሐ. የማይፈለግ
204	በዚህ እርግዝና ስነት ጊዜ ክትትል አድርገዋል?	----------
205	ከዚህ በፊት ዉርጃ አጋጥሞዎት ያዉቃል?	1. አዎ 2. አይ አያዉቅም
206	ከዚህ በፊት በወሊድ ሰዓት ልጅ ሞቶብዎት ነበር?	1. አዎ 2. አልነበረም

ክፍል 3፡ የተሳታፊዎችን የህክምና ሁኔታ የሚዳስሱ መጠይቆች

ተራ ቁ.	**ጥያቄዎች**	**መልስ**
301	ከዚህ በፊት በህክምና የተረጋገጠ የአምህሮ ህመም ነበረብዎት ወይም ከአምህሮ ጋር በተያያዘ ህክምና ተደርጎልዎት ያዉቃል	ሀ. አዎ ነበር ለ. የለም
302	የቅርብ በቤተሰብዎ ዉስጥ ማለትም እናት ፤ አባት፤ወንድም ወይም እህትዎ ላይ የአምሮ በሽታ ያጋጠመው ሰው ነበር?	1. አዎ 2. የለም

ክፍል 4፡ የአምህሮ እና ማህበራዊ ድጋፎችን የሚዳስሱ መጠይቆች

የ ኦ.ስ.ስ.ስ-3 አማርኛ መጠይቅ ትርጓሜ						
ተራቁ.	**ጥያቄዎች**	**መልስ**				
401	ከባድ የግል ችግር ቢያጋጥምዎት ከጎንዎ ይሆናሉ ብለዉ የሚተማመኑባቸው ስንት የቅርብ ሰዎች አሉዎት?	ምንም	ከ1 እሰከ 2	ከ3 እሰከ 4	5 እና ከዚያ በላይ	
402	እርስዎ በሚያደርጉት ነገር ላይ ሰዎች የሚያሳዩት ፍላጎትና ትኩረት ምን ያክል ነዉ	ምንም	ትንሽ	እርግተኛ አደለሁም	መጠነኛ	በጣም
403	የጎረቢትዎ እርዳታ ቢያስፈልግዎት ከጎረቤቶችዎ እርዳታ ማግኘት ምን ያህል ለእርስዎ ቀላል ነው	በጣም ከባድ ነዉ	ከባድ ነዉ	ይቻላል	ቀላል ነዉ	በጣም ቀላል ነዉ
ባለቤትዎ ስለ እርግዝናዉ ያለዉ ስሜት						
501	የእርስዎ ባለቤትዎ ስለ እርግዝናዉ ምን ይሰማዋል				ሀ. ደስተኛ ነዉ	

		ለ. ደሰተኛ አደለም

ክፍል 5፡ የተሳታፊዎችን አእምሮ ሊነዱ የሚችሉ ንጥረ ነገሮችን አጠቃቀም የሚዳስሱ ጥያቄዎች

ተራቁ.	**ጥያቄዎች**	**መልስ**
601	በዚህ እርግዝና ወቅት እርሰዎ ማንኛውንም አይነት ጎጂ ንጥረ ነገር ተጠቅመዉ ያዉቃሉ?	ሀ. አዎ ለ. ተጠቅሜ አላዉቅም
602	ለጥያቄ ቁጥር ቁጥር 1 የእርስዎ መልስ አዎ ከሆነ፣ የተጠቀሙት የንጥረ ነገር አይነት/አይነቶች ምንድን ነዉ/ናቸው?	ሀ. ማጨስ (ሲጋራ/ሺሻ) ለ. አልኮል ሐ. ጫት መ. ሌላ፡ ይግለጹ----------

ክፍል 6፤ ባለ 7 ንጥል መደበኛ የእናቶችን የቅድመ ወሊድ የመጨነቅ ስሜትን የሚዳስሱ የ ኤች.ኤ.ዲ.ኤስ.ኤ መጠይቆች

ተራቁ.	**ጥያቄዎች**	**መልስ**			
1	ባለፉት ሰባት ቀናቶች ዉስጥ የመጨነቅ ወይም ውጥረት ውስጥ እንዳለሽ ስሜት	አብዛኛውን ጊዜ	ብዙ ጊዜ	አንዳንድ ጊዜ አለፎ ለፎ	በፍፁም አልተሰማኝም

	ተስምቶዎታል?				
2	ባለፉት ሰባት ቀናቶች ዉስጥ አስፈሪ ነገር ሊከሰት እንደሚችል የፈርሃት ስሜት ይሰማዎት ነበር?	አዎ በጣም እና እጅግ ከባድ የሆነ	አዎ ግን ከባድ አይደለም	ትንሽ ነበር ግን አልተጨነቅ ሁም	በጭራሽ አልነበረም
3	ባለፉት ሰባት ቀናቶች ዉስጥ የሚያስጨንቅ ሀሳብ በአምሮዎ ዉስጥ ይመላለስ ነበር?	በጣም አብዛኛዉን ጊዜ	ብዙ ጊዜ	ከጊዜ ወደ ጊዜ የጨመረ ግን ከባድ አልነበረም	አለፎ አልፎ ብቻ
4	ባለፉት ሰባት ቀናቶች ዉስጥ በሰላም መቀመጥ እና ዘና ማለት ትችይ ነበር?	ሁልጊዜ	አብዛኛዉን ጊዜ	አንዳንድ ጊዜ	በፍፁም አልችልም ነበር
5	ባለፉት ሰባት ቀናቶች ዉስጥ ሆድዎት ዉስጥ መርበትበት ወይም የሚበር ቢራቢሮ የሚመስል የፈርሃት ስሜት ይሰማዎት ነበር?	በፍፁም	አንዳንድ ጊዜ	ብዙ ጊዜ	አብዛኛዉን ጊዜ
6	ባለፉት ሰባት ቀናቶች ዉስጥ እረፍት የማጣት እና መንቀሳቀስ እንዳለብዎት አይነት ስሜት	እጅግ በጣም	ብዙ	ትንሽ	በፍፁም አይሰማኝ

	ይሰማዎት ነበር?				ም ነበር
7	ባለፉት ሰባት ቀናቶች ዉስጥ በድንገት የሚመጣብዎት የፍርሃት ስሜት ነበር?	በጣም ብዙ ጊዜ	ብዙ ጊዜ	አንዳንድ ጊዜ ግን ከባድ አልነበረም	በፍፁም አልነበረም

ክፍል 7፤ ባለ 10 ንጥል መደበኛ የእናቶችን የቅድመ ወሊድ ድባቴን የሚዳስሱ የ ኢ.ዲ.ፒ.ኤስ መጠይቆች

ተ.ቁ	**ጥያቄዎች**	**መልስ**			
1	ባለፉት ሰባት ቀናቶች ውስጥ መሳቅ እና የነገሮችን አስደሳች ጎን መመልከት ችለዋልን?	እንደ በፊቱ የምችለውን ያህል	አሁን ላይ እንደበፊቱ አይደለም ትንሽ ቀንሷል	አሁን ላይ ከበፊቱ በጣም ቀንሷል	በጭራሽ አልቻልሁም
2	ባለፉት ሰባት ቀናቶች ውስጥ ነገሮቸችን በደስታ ወደፊት መመልከት ችለዉ ነበር?	አዎ በፊት እንደነበርዉ	በፊት ከነበረዉ ጋር ሲነጣጠር ትንሽ ቀንሷል	ከበፊቱ ጋር ሲነፃፀር በጣም ቀንሷል	በአጠቃላይ ከባድ ነው
3	ባለፉት ሰባት ቀናቶች ውስጥ ነገሮች ወደ አላስፈላጊ ሁኔታ ሲያመሩ ያለአግባብ እራስዎን ይወቅሱ	አዎ አብዛኛዉን ጊዜ	አዎ አንዳንድ ጊዜ	እምብዛም አይደለም	አይ በፍፁም

	ነበር?				
4	ባለፉት ሰባት ቀናቶች ውስጥ ያለምንም በቂ ምክንያት ተሸብረው ወይም ተጨንቀው ያውቃሉ?	አይ በፍፁም	እምብዛም	አዎ አንዳንዴ	አዎ በጣም ብዙ ጊዜ
5	ባለፉት ሰባት ቀናቶች ውስጥ ያለምንም በቂ ምክንያት የፍርሀት እና የድንጋጤ ስሜት ተሰምቶዎት ያውቃል?	አዎ በጣም ብዙ ጊዜ	አዎ አንዳንድ ጊዜ	ብዙ ጊዜ አይሰማኝም	በጭራሽ ተሰምቶኝ አያዉቀም
6	ባለፉት ሰባት ቀናቶች ውስጥ ነገሮች ከቁጥጥርዎ ውጭ ሆኖብዎት ያውቃል?	አዎ አብዛኛዉን ጊዜ ነገሮችን እንደበፊቱ መቋቋም አልችም ነበር	አዎ አንዳንድ ጊዜ ነገሮቸሀን ልክ እንደ በፊቱ ነገሮች መቋም አልችም ነበር	አይ አብዛኛዉን ጊዜ ነገሮችን በጥሩ ሁኔታ እቋቋማለሁ	ልክ እንደ በፊቱ ነገሮችን በጥሩ ሁኔታ እቋቋማለሁ

7	ባለፉት ሰባት ቀናቶች ውስጥ በጣም ደስተኛ ካለመሆንዎ የተነሳ እንቅልፍ መተኛት እምቢ ብልዎት ያዉቃል ?	አዎ አብዛኛዉን ጊዜ	አዎ አንደንድ ጊዜ	እምብዛም አደለም	በጭራሽ እምቢ ብሎኝ አያዉቅም
8	ባለፉት ሰባት ቀናቶች ውስጥ የሀዘን እና የብስጭት ስሜት ይሰማዎት ነበር?	አዎ አብዛኛዉን ጊዜ	አዎ ብዙ ጊዜ	ቢዙ ጊዜ አይደለም	በጭራሽ
9	ባለፉት ሰባትቀናቶች ውስጥ በጣም ከማዘንዎት የተነሳ አልቅሰዉያውቃሉ ?	አዎ አብዛኛውን ጊዜ	አዎ ብዙ ጊዜ	አልፎ አልፎ ብቻ	በጭራሽ
10	ባለፉት ሰባት ቀናቶች ውስጥ እራስዎን ለመጉዳት አስበዉ ያውቃሉ?	በጣም ብዙ ጊዜ	አንዳንዴ	እምብዛም	በጭራሽ መቼም አስቤዉ አላዉቅም