

ADDIS ABABA UNIVERSITY
COLLEGE OF HEALTH SCIENCE
SCHOOL OF NURSING AND MIDWIFERY

**PREVALENCE AND ASSOCIATED FACTORS OF
POSTPARTUM DEPRESSION AMONG FATHERS WHO
COME TO POSTNATAL FOLLOW UP CLINIC WITH THEIR
PARTNER IN SELECTED PUBLIC HEALTH CENTERS OF
ADDIS ABABA, ETHIOPIA, 2019**

BY: GETAYE WORKU (BSC)

**A RESEARCH THESIS SUBMITTED TO ADDIS ABABA
UNIVERSITY, COLLEGE OF HEALTH SCIENCE, SCHOOL OF
NURSING AND MIDWIFERY DEPARTMENT OF NURSING AND
MIDWIFERY AS PARTIAL FULFILLMENT OF MASTERS
DEGREE IN MATERNITY AND REPRODUCTIVE HEALTH
NURSING**

JUNE, 2019

ADDIS ABABA, ETHIOPIA

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SCIENCE, SCHOOL OF NURSING AND MIDWIFERY**

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POSTPARTUM DEPRESSION AMONG FATHERS WHO
COME TO POSTNATAL FOLLOW UP CLINIC WITH THEIR
PARTNER IN SELECTED PUBLIC HEALTH CENTERS OF
ADDIS ABABA, ETHIOPIA, 2019**

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I, the undersigned MSc student, declare that I have submitted my original work on a title prevalence and associated factors of paternal postpartum depression among fathers who come to postnatal follow up clinic with their partner in selected public health centers of Addis Ababa, Ethiopia, 2019 for the examination.

Submitted by:

Name of student

Signature

Date

This thesis work has been submitted for examination with my approval as an advisor.

Approved by:

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Name of Major Advisor

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Date

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Approval by the board of examination

This thesis by Getaye Worku is accepted in its present form by the board of examiners as satisfying thesis requirement for the degree of Masters of Science in Reproductive and Maternal Health Nursing.

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STATEMENT OF DECLARATION

By my signature below, I declare and affirm that this thesis is my own work. I have followed all ethical principles of scholarship in the preparation, data collection, data analysis and completion of this thesis. All scholarly matter that is included in the thesis has been given recognition through citation. I affirm 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 is submitted in partial fulfillment of the requirement for a graduate degree from the Addis Ababa University at College of Health Sciences, School Nursing & Midwifery. The thesis is deposited in the Addis Ababa University Digital Library and is made available to local, national and international scientific community. I solemnly declare that this proposal has not been submitted to any other institution anywhere for the award of any academic degree, diploma or certificate.

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LIST OF ABBREVIATIONS AND ACRONYMS

AA	Addis Ababa
AAU	Addis Ababa university
AOR	Adjusted Odds Ratio
ANC	Antenatal care
CESD	Center for Epidemiologic Studies Depression Scale
COR	Crude Odds Ratio
CI	Confidence Interval
DSMIV	Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition
EPDS	Edinburg Postnatal Depression Scale
GA	Gestational Age
HC	Health center
PHAA	Public health centers of Addis Ababa
PPPD	Paternal postnatal depression
PPND	Paternal postpartum depression
PPPD	Paternal postpartum depression
SPSS	Statistical package for social sciences

ABSTRACT

Background: Paternal postpartum depression is a serious public health problem which has a significant effect on mortality and morbidity level and its effect is not limited to the father, but it also affects the family, the marriage relationship and present and future child development.

Objective: To assess the prevalence and associated factors of paternal postpartum depression among fathers who come with their partner in selected public health centers of Addis Ababa, Ethiopia, 2019.

Methodology: Institution based cross sectional study design was conducted among 423 fathers. Lottery sampling method was used to select the health center; the samples were proportionally allocated to each health center. Finally the study participants were selected by systematic sampling method. The collected data was entered to Epidata version 4.2.2.0.0 and exported to SPSS for further analysis. The Edinburgh Postnatal Depression Scale (EPDS) was considered at a cutoff point ≥ 9 to detect depression. Descriptive statistics and Logistic regression analyses was used to see the association of different variables.

Result: 423 fathers were interviewed in this study and 410 (97 %) were correctly completed the questionnaire. 70(17%) of the participants had paternal postpartum depression. This study showed that; family income [AOR= 3.0(95% C.I: 1.1- 8.2)], substance use [AOR=4.5 (95% C.I: 1.5- 13.3)], family support [AOR= 3.9(95% C.I: 1.3-11.3)], marital relation [AOR= 4.1(95% C.I: 1.5- 11.0)], unplanned pregnancy [AOR= 3.5(95 % (C.I: 1.4- 8.7)], infant sleep problem [AOR =10.0(95% C.I: 4.1- 24.0)], were significantly associated with paternal postnatal depression.

Conclusion and recommendations:

This study results revealed paternal postpartum depression is a public mental health problem. This suggests the need to provide paternal mental health assessment and screening, further efforts to decrease substance use and on family planning utilization, and pre marriage counseling during this period.

Key; Paternal postpartum depression, Edinburgh Postnatal Depression Scale, fatherhood

1. INTRODUCTION

1.1. Background

Paternal postpartum depression (PPPD) also known as “paternal postnatal depression (PPND)” is one of non-well recognized mental illness in fathers that occurs with major depressive symptom which has the onset occurring within four weeks of child birth and may extend to one year (1-4).

These depressive symptoms are; experiencing the symptoms of fatigue and changes in sleep or appetite, they often but not present always show less sadness, crying, and outward emotional symptoms. And there are other most common symptoms of paternal postpartum depression among these; irritability, unhealthy sexual relationships or infidelity, working more or less, low energy, exhaustion, lack of motivation or poor concentration, weight or appetite change, risk-taking behaviors including using of substance, physical signs (headaches, muscle pain, stomach digestion problems), anger and outbursts, escapist behavior, such as spending excessive time on watching television, on the internet or at work violent behavior, suicidal thoughts (5-7).

Sideways from the occurrence of enjoyments, the postnatal period is noticeable by substantial change and the absence of routine activities. Fathers experience several changes and stresses after child birth, such as sleep problems, fatigue, relationship change and financial difficulties. Even though some fathers expect that they may find it difficult to adapt to parenthood, many fathers are not fully aware of the impact a baby will have on their lives(8-10).

The postpartum period is the transformation to paternity and it is a challenging and vulnerable period for most fathers. Studies showed that fathers suffer in depression after the birth of a child(3, 11).

Usually, postpartum depression was assumed as a mental illness of only for women. But, about one fourth of new fathers could also experience overwhelming depression after the birth of their newborn (3, 12, 13). The concept of paternal postnatal depression recognized in the fore in 1990 (14) .

The transition to paternity may be complex and devastating, and may have negatively influence the men’s health. The change and practice to paternity is considered one of the most

acute change that experienced throughout a man's life(8). The experience is influenced by father itself, relationship, and infant factors(15).

By different researcher the scale mostly used to identify the PPPD was Edinburgh Postnatal Depression Scale (EPDS). There are also other screening measurements in identifying PPPD; Center for Epidemiologic Studies, and Beck Depression Inventory were used by different researchers. Similar to other forms of depression PPPD is a treatable mental illness and it has non pharmacological and pharmacological treatment options.

1.2. Statement of problem

Paternal postnatal depression (PPPD) is a clinically significant problem for fathers, families and community which is currently under screened, underdiagnosed, and under-treated. There was an estimates of the prevalence of paternal PPD in review of different literature vary widely, ranging from 4% to 25% of fathers within the postpartum period (3, 12).

Despite postpartum depression among women has been studied by different researchers in different countries, the prevalence of depression among the fathers of newborn is a phenomenon not well recognized, is under screened and underdiagnosed (14, 16).

Different scholars on prevalence of paternal PPPD extending from 1.2% to 25.5% in community study and become higher among fathers whose partner were had paternal postnatal depression ranges from one fourth to half of father were affected with PPPD(3, 11). And this indicates the existence of maternal postpartum depression increases the incidence of PPPD. In Ethiopia the prevalence of PPND was not conducted, but the prevalence of maternal postpartum depression was ranged from 23.3 to 34 percent of postpartum mothers were have postpartum depression (17-19).

Paternal postpartum depression can increase suicide risk or loss of one self(20). In addition PPPD contributes to negative impacts on the family, poor parenting behaviors, the marriage relationship, reduced parent infant interaction, has implications for healthy child growth and development (21-23). According to different studies the effect of paternal PPD was not limited to negative effect on early development of child, but also on the child's whole future physical growth and healthy socio emotional and psychological development. These impaired parenting practices may lead to difficult child character, including excessive infant crying. And these problems may cause the child impaired behavioral and language development and as well as to psychiatric disorders like emotional and behavioral problems (24, 25).

Several factors have been identified that may precipitate paternal postpartum depression including paternal factors; employment status, relationship factors; poor marital relationships, and infant related problems (26-29).

Although the prevalence of PPPD is not enough studied, according to the recent investigations the problem has advanced considerably over the three decades. The estimates of the prevalence of PPPD within the first year vary widely ranging from 4% to 27% (30-32). This rate of depression among male were higher than those observed in the general male adult population which are estimated at 4.7%(1).

The prevalence of maternal postpartum depression among Ethiopian postpartum women high as compared to global reported figure ranges from 4.5%–20% (17-19, 33). However, PPPD among fathers of a newborn is a new concept in Ethiopia.

Despite there are literatures on paternal postnatal depression has been studied by different researchers in different countries, to our knowledge, there is no study conducted in Ethiopia on the prevalence and associated factors of PPPD, therefore the aim of this study was to assess the prevalence and associated factors of PPPD among father who come to postnatal follow clinic Addis Ababa health centers.

1.3. Significant of the study

This study is useful in adding the knowledge on the regarding level of depression among fathers after they have newborn. This study will be important for different stakeholders (policy makers, the health institution, health care providers, and community) in addressing the issues related to paternal morbidity and mortality during postpartum period, the result will show prevention measures that are important for decreasing the occurrence of depression among father of the new born. The result will provide information for strategic planning of comprehensive postnatal care and follow up, support and care of fathers with new born. It is also expected that, the findings will be important for further psychiatric evaluation and hence, advanced mental health care and support will be integrated with the routine postnatal care and follow up management guidelines, it may also important to design curriculum, training, and to provide evidence based practice. The study results may also show solutions for the paternal postpartum related depression at the community level. And prevention of paternal depression is important for house hold or family development. And it also will be a baseline source for additional further research regarding paternal postpartum depression.

2. LITERATURE REVIEW

2.1. The prevalence of paternal postpartum depression

The cross sectional study conducted in Brazil using Beck Depression Inventory (BDI) showed that the prevalence of depression among father was 11.9%, this figure also extend more than 40% among fathers who had depressed partner(13). The cross sectional study in Saudi Arabia on the prevalence of paternal postnatal depression among fathers of newborn conducted in Saudi Arabia using EPDS measurement scale prevalence was 16.6%(34).

The study done in Japan revealed that the prevalence of paternal depression among fathers were 7.5% using the Center for Epidemiologic Studies Depression Scale (CESD) scores, and 11.6% of them were depressed using the Edinburgh Postnatal Depression Scale EPDS score (35). The longitudinal study conducted in 2017 Japan on Prenatal and early postnatal depression and child maltreatment using the EPDS showed that the prevalence of paternal postnatal depression were 8.8(36). The longitudinal study conducted in Japan on 2016 using EPDS scale 16.7% of fathers were have symptoms of depression(37). Another study conducted on the prevalence and risk factors for postpartum depression among 1023 fathers in Japan showed that 11.2 % of participants were symptoms of depression by using the EDPS measurement scale(38).

The study conducted northwest china in 2016 on postpartum depression and the psychosocial predictors in first-time fathers showed the prevalence of 13.6% by using the EPDS(39).

The meta-analysis conducted on Prevalence of paternal depression in pregnancy and the postpartum by using different studies reported as the prevalence of 8.4% (2).

The prevalence of depression in fathers during postpartum period was conducted in different measurement scale in different countries. For example the prevalence of Paternal postpartum depression by using the Center for Epidemiologic Studies Depression Scale (CESD) was 10.3%, which was more than doubled that of the general adult male population in the US(12). Another study conducted in Australian fathers showed that 9.7% of fathers were had depression by using Kessler-6 scale in the first year after birth of a child (40).

The meta analysis conducted in 2010, showed that, estimated rate of paternal postpartum depression was 10 %, with CI of 8.5%, 12.7% with a mix of studies reporting depression rates at single versus two or more time points during the antenatal/postpartum period(41).

Another cross-sectional study design conducted in Ireland showed that the prevalence of paternal postnatal depression using the EPDS scale cut of point greater or equal to nine was 28%(4).

2.2. Factors associated with paternal postpartum depression

Even though the exact interconnection between identified factors is not clearly known; there were factors contributing to paternal postpartum depression by different studies. Different risk factors have been identified in the associated with PPND, such as unemployment, unplanned pregnancy, poor marital relationship, poor social support, lack of family support, previous history of depression, joint family versus nuclear family (34, 35, 41, 42). These predictors are categorized in to three categories as follows depending on reviewing different literatures.

Father related factors

The paternal postpartum depression was significantly associated with those fathers who were struggling to survive financially than that of financially comfortable fathers, and being unemployment were greater prevalence of PPPD, which was not statistically significant. Paternal postnatal depression was higher in prevalence among those who not receive paternal leave than that of received. Being a lower educational level was higher in prevalence of PPND but it was not statistically significant, and having history of previous depression were statistically significant factor for PPND(4, 43).

The study in Saud Arabia showed that the demographic (age, experience of being a father before, educational status, economic status) and employment- related characteristics were not significantly different between fathers with and without depression. but the employment status; permanent versus temporary, was significantly different between fathers with and without depression(34).

On the other hand the study in Japan on 2010 showed that those fathers with temporary employment or unemployment were significantly more likely to be depressed than permanent employees(35). The study in Brazil showed that paternal postpartum depression was not associated with socio demographic characteristics of the father.

Different studies revealed that paternal postnatal depression were significantly associated with personal or paternal predictors such as history of history of psychiatric illness and treatment such as depression, substance use such as alcohol use and smoking(13).

The study in Japan on 2016 also showed that fathers with a history of depression. were significantly more likely to experience postnatal depression(37). But the fathers' socio demographic characteristics, obstetric characteristics were not associated with paternal depression(37).

Relationship factors

According to the study conducted in Saudi Arabia there were no statically significant association with PPND among those who were marital status, marital relationship, number of wife or partner, wife went to her mother's house for delivery, family setup, relationship with parents, friend support difference (34). But another study in US paternal depression was associated with poor marital relationships(40).

On the other side the study in Japan revealed that relationship with partners were not associated with paternal postpartum depressive symptoms(37).

Another study in Ireland showed that unplanned pregnancy, and friend support were not statistically associated with PPND, but in that study being single, partner support, private healthcare for partner and family support were statically significant association with PPND(4).

Infant related and environmental predictors

Environmental and infant related risk factor for PPPD by the study conducted in Ireland was the infant itself sleeping problem were statistically significant risk factor, but having full term infant and having an infant that did not have sleeping problem were not risk factor for PPPD. Other infant factor that did not have statistical significance was type of delivery. Living in rented accommodation and certain types of housing such as an apartment were found to be statistically significant risk factors for PPPD(4).

According to the study conducted in Saudi Arabia there were no statistically significant change between depressed fathers and non-depressed father among those who were planned versus unplanned pregnancy, attending the ANC check up with their partner or not, attending the new born delivery or not, mode of the delivery, history of loss of child before, presence of congenital problem with new born(34). In other hand study in Japan showed that unintended pregnancy were associated with an increased risk of depression in fathers than that of had planned pregnancy(35).

2.3. Conceptual framework

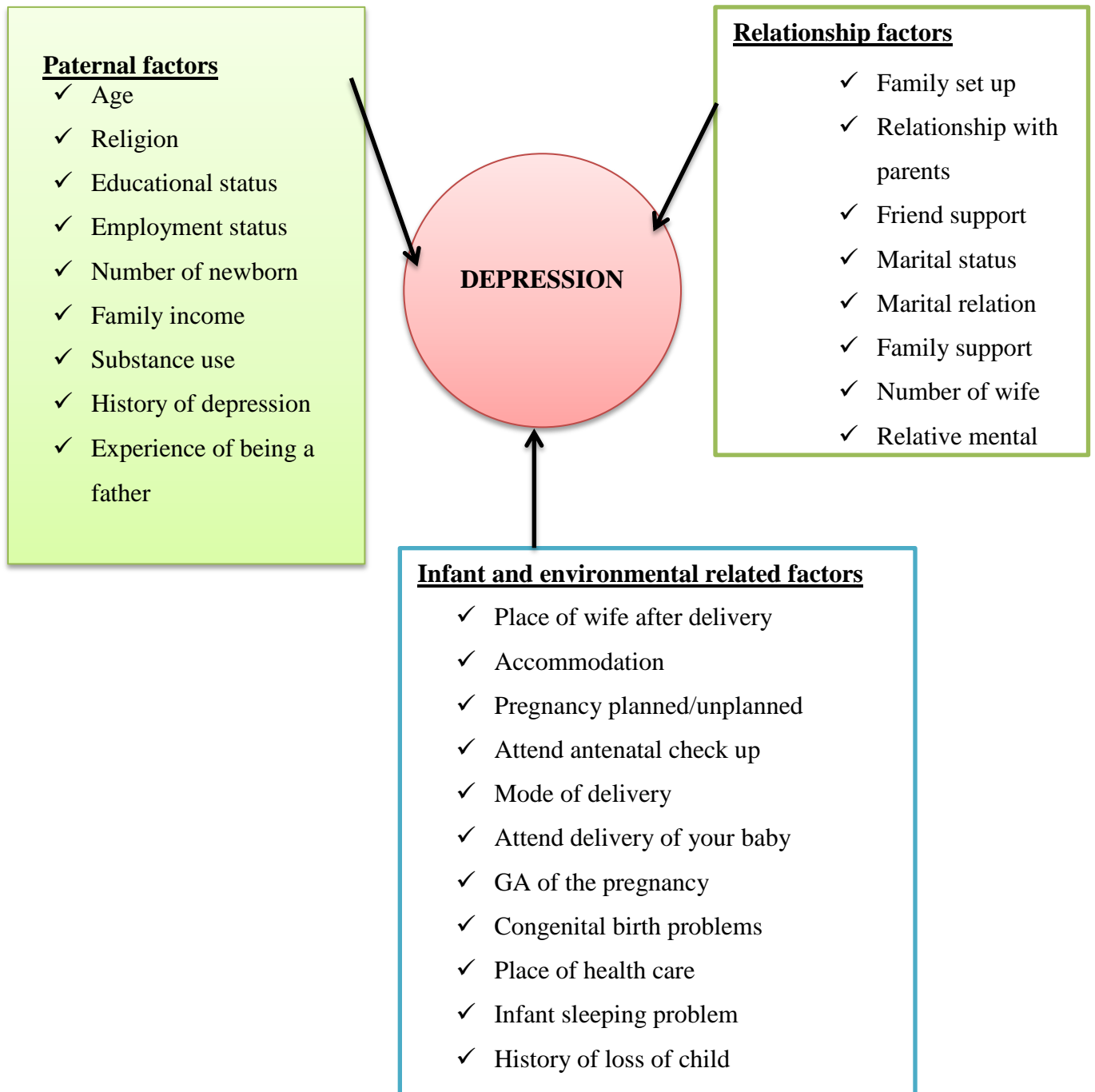


Figure 1 Conceptual frame work.

Source, Adapted from different literatures (4, 13, 34, 37, 44).

3. OBJECTIVE

3.1. General objectives

To assess the Prevalence and associated factors of paternal postpartum depression among fathers who come to postnatal follow up clinic with their partner in selected Addis Ababa health facility, Ethiopia, 2019

3.2. Specific objectives

1. To determine the prevalence of PPPD among fathers who come to postnatal follow up clinic with their partner in selected Addis Ababa health facility, Ethiopia, 2019.
2. To identify the associated factors with PPPD among fathers who come to postnatal follow up clinic with their partner in selected Addis Ababa health facility, Ethiopia, 2019.

4. METHODOLOGY

4.1. Study area and study period

The study was conducted in public health centers of Addis Ababa city administration; which is capital of Ethiopia. The city has an estimated total population size of 7 Million as estimated in 2018 (source: populationof2018.com/addis-ababa-population-2018.html), and the city is divided in to 10 sub cities. There are 6 hospitals and 98 health centers under Addis Ababa health bureau, and 8 hospitals under federal government: five hospitals under a Federal Ministry of Health, and three hospitals under defense force and police. There are also over 34 private hospitals and over 700 private clinics in Addis Ababa city.(source Addis Ababa health bureau informally).

This study was conducted in selected public health centers of Addis Ababa, which have postnatal follow up unit from April 1 to May 2, 2019.

4.2. Study design

Institutional based cross-sectional quantitative study was employed.

4.3. Population

4.3.1. Source population

All fathers who come to postnatal clinics with their partner in public health centers of Addis Ababa.

4.3.2. Study population

All fathers who come to postnatal clinics with their partner in selected public health centers of Addis Ababa.

4.3.3. Study subjects

The study subjects were father who present at time of data collection in selected public health centers of AA.

4.3.4. Eligible criteria

4.3.4.1. Inclusion criteria

Father who come to postnatal follow up unit during 3rd visit with his partner and had infant greater or equal to 4 week.

4.3.4.2. Exclusion criteria

Fathers who were not able to respond to questions were excluded.

4.4. Sample size and sampling techniques

The required sample size of eligible participants for the study was determined by using a single population proportion formula.

Therefore:-

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

Where,

n= the desired sample size

Z $\alpha/2$ = is standardized normal distribution value for the 95% CI =1.96

d= was the margin of error to be tolerated (5%)

P= by considering 50%, since prevalence of PPPD in Ethiopia is not known.

$$n = \frac{(1.96)^2 0.5(1-0.5)}{(0.05)^2}$$

$$n = 384$$

None response rate 10%, there for the total sample size was **423**

4.5. Sampling procedure

The total numbers of public health centers (HC) in Addis Ababa was 98. From these three of them had no postnatal follow up figure in the previous month report. From the rest 25 HCs were selected by lottery method. The selected health centers were Addis ketema health center (AKHC), Kality HC(KHC), Gelan HC (GelHC), Nifas Silk Lafto Number 02 HC(N/S/L/no 02), Nifas Silk Lafto Woreda 02 HC (N/S/L/ W 02 HC), Nifas Silk Lafto Woreda 10 HC (N/S/L/ W 10), Nifas Silk Lafto Woreda 12HC (N/S/L W 12), Kotebe HC(Kot HC), Yeka Woreda 12 HC(YWo12 HC), Yeka Woreda 13 (YWo13 HC), Yeka HC (YekHC), Addisu Gebiya HC(AdGHC), Alem Bank HC(AlBHC), Cherchil HC(CrHC), Kolfe HC (KolHC), Kolfe W01HC(KolW01HC), Kolfe woreda 09 HC (kolW09HC), Bole 17/20 HC(B17/18), Jan meda HC(JMHC), Bolebulbula HC(BulHC), Entoto no 02 HC(En01HC), Ferese meda HC(FMHC), Meri HC (MrHC), Lideta HC (LHC), and Semen HC(SmHC) were selected. The study subjects were allocated proportionally to each health center according to the previous month (March) clients follow up record in postnatal care unit and the study subject from selected health center was selected by systematic random sampling method. The first father was selected by lottery method and the others were selected every two.

➤ To know the proportional sample=>

The average population to each HC *Total sample size (423) divided by total clients attending the selected (25) HC (828)

Addis ketema HC= $\frac{33*423}{828}$ => 17 fathers

828

Kality HC= $\frac{15*423}{828}$ =8 fathers

828

Gelan HC = $\frac{30*423}{828}$ ==> 15 fathers

828

Nifas Silk Lafto no 02= $\frac{50*423}{828}$ = 26 fathers

828

Nifas Silk Lafto W 02= $\underline{90*423}$ ====→46 fathers

828

Nifas Silk Lafto W 10= $\underline{35*423}$ ===→ 18 fathers

828

Nifas Silk Lafto W 12= $\underline{40*423}$ =→ 20 fathers

828

Kotebe HC= $\underline{30*423}$ =====→ 15 fathers

828

Yeka w12 HC= $\underline{35*423}$ =====→ 18 fathers

828

Yeka w13= $\underline{35*423}$ =====→ 18 fathers

828

Yeka HC= $\underline{30*423}$ =====→ 15 fathers

828

Addisu Gebiya HC= $\underline{25*423}$ ==→13 fathers

828

Alem Bank HC = $\underline{60*423}$ ==→ 31 fathers

828

Cherchil HC = $\underline{8*423}$ ==→4 fathers

828

Kolfe HC= $\underline{90*423}$ ====→46 fathers

828

Kolfe Wor01= $\underline{30*423}$ =====→ 15 fathers

828

Kolfe Wor 09= $\underline{32*423}$ = 16 fathers

828

Bole 17/20 HC= $\underline{20*423}$ => 10 fathers

828

Jan meda HC= $\underline{15*423}$ =8 fathers

828

Bolebulbula HC = $\underline{15*423}$ =8 fathers

828

Entoto no 02= $\underline{15*423}$ =8 fathers

828

Ferese meda HC= $\underline{18*423}$ =====> 9 fathers

828

Meri HC = $\underline{31*423}$ =====> 16 fathers

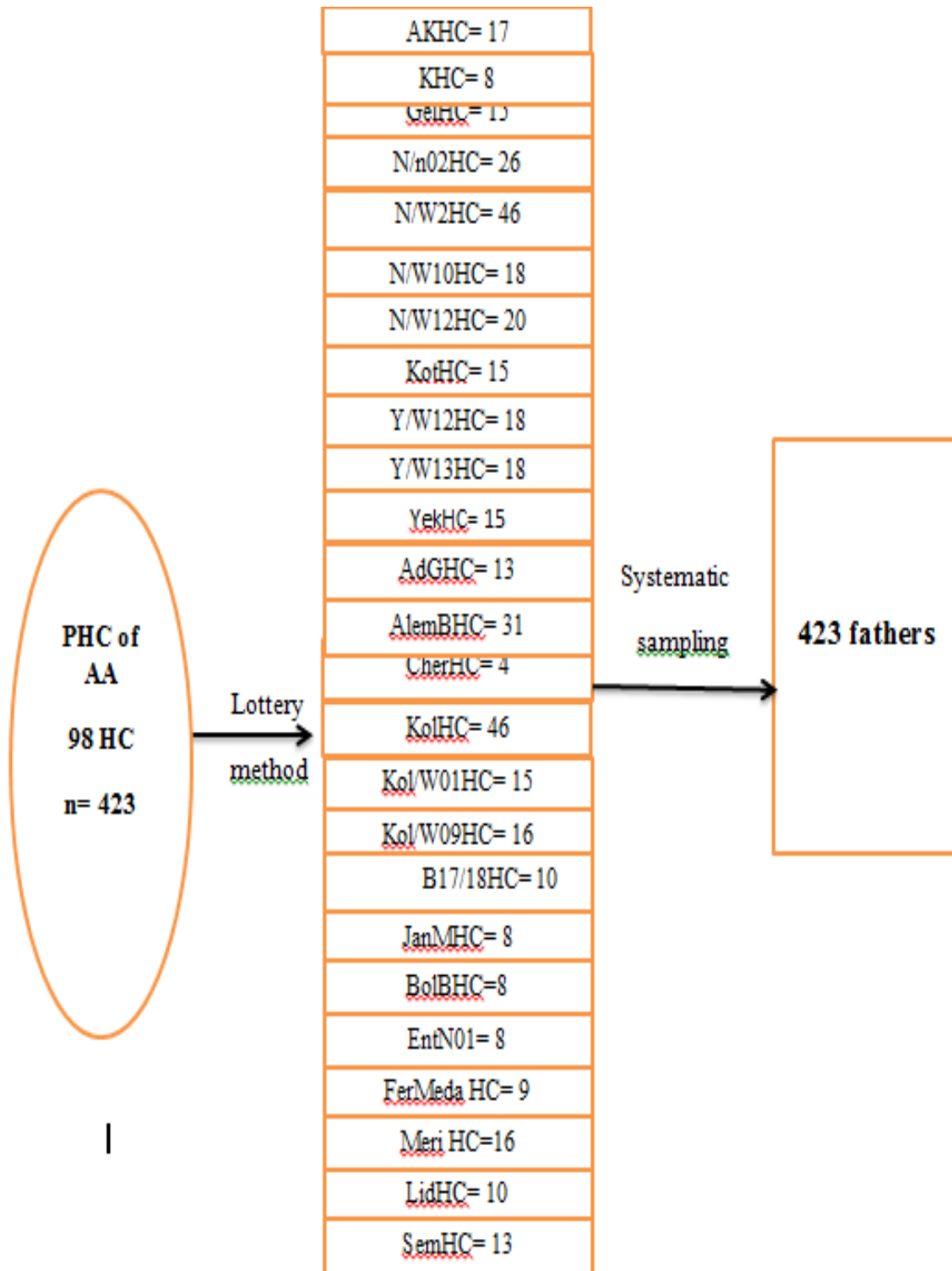
828

Lideta HC = $\underline{20*423}$ => 10 fathers

828

Semen HC= $\underline{26*423}$ =====> 13 fathers

828



Key; PHC = Public health centers of Addis Ababa

Figure 2 Schematic presentation of sampling procedures

4.6. Variables

4.6.1. Dependent variable

- Paternal postpartum depression

4.6.2. Independent variables

➤ Paternal factors

- ✓ Age, religion, educational status, employment status, number of newborn, family income, substance use, history of depression, experience of being a father.

➤ Relationship factors

- ✓ Family set up, relationship with parents, friend support, marital status, marital relation, family support, number of wife, and relative mental illness.

➤ Infant and environmental factors

- ✓ Place of wife after delivery, accommodation, pregnancy planned/unplanned, attend antenatal checkup, mode of delivery, attend delivery of your baby, GA of the pregnancy, congenital birth problems, place of health care, infant sleeping problem, and history of loss of child.

4.7. Operational definitions

- ❖ Depression was considered if the cumulative score of Edinburg Postnatal Depression Scale (EPDS) was 9 or more. EPDS has 10 items and each item of the EPDS was scored from 0 to 3, yielding a total range of 0–30. The score of questions number 1, 2 and 4 were; the first choice scored as 0, the second choice scored as 1, the third choice scored as 2 and the last choice scored as 3 and the score of question number 3, 5, 6, 7, 8, 9, and 10 were scored the first as 3, second as 2, third as 1 and the last 0.
- ❖ Substance use was considered when the fathers were used any one or more of the substance (alcohol, chat, and or cigarette).

4.8. Data collection instruments

A structured interviewer administered questionnaire was adapted from previously published literatures (4, 13, 34). The Edinburg Postnatal Depression Scale (EPDS) was used to assess the depressive symptoms. The EPDS has 10 questions and each question has four possible responses, which are scored from 0 to 3; the total score ranges from 0 to 30, and it is useful in identifying depression during postnatal period and has acceptable internal consistency for men by different studies(45-47). It measures the feeling of fathers during the previous seven days of postnatal period.

The questionnaire has four parts; the father related, relationship, infant and environmental factors with the EPDS and it was prepared in English and translated into the local language Amharic by experts, then retranslated back into English by a different expert to insure the consistency. The Amharic version of the EPDS questionnaire was adopted and rechecked from previous study and was used for data collection(17).

4.9. Data collection procedure

A total sample of 423 fathers was interviewed. The designed questionnaire contains close ended and some open ended questions. The questionnaire was pre-tested in Nifas Silk Lafto sub city Woreda 05 Health center among 22 (5%) fathers determine the reliability of the questions, clarity of terminology and the securing and orderliness of the questions. Data collectors and supervisors were recruited; they are expected to have experience of data collection. A total of twenty five midwives were selected for data collection and four MSc in maternity and reproductive health was selected for supervisor and training was given for supervisor and data collectors by principal investigator. The training was comprised interpretation and detailed explanation of every question with clear understanding by the interviewers. The training includes interpretation of the questions which is prepared and translated into Amharic. The data collection was conducted from April 1 to May 2, 2019. The principal investigator was supervised throughout the data collection period.

4.10. Data quality assurance

Data collectors were selected among trained health care provider who were working on the other facility and, who have previous experience of data collection and participation in research. Training was also given for data collectors. Then, the research tool was pre-tested in Nifas Silk Lafto subcity woreda 05 health center among 22 fathers & the necessary arrangements & corrections were made to standardize & ensure its validity. The quality of data collection process was supervised by the principal investigator.

4.11. Data analysis

Data was entered and coded into a computer using Epidata version 4.2.0.0 and was analyzed after it is exported in to SPSS version 20. Exploration of relationships between variables was made with descriptive statistics. Tables and cross-tabulations and percentages were used, and a logistic regression statistical model was employed for analysis. The outcome variable is based on EPDS score that a cutoff point ≥ 9 was taken as presence of depression and less than this cutoff point was taken as absence depression. Therefore, the association of covariates with depression was estimated using logistic regression models and Odds ratios with 95% confidence intervals was calculated to identify associated factors PPPD.

4.12. Ethical clearance

Permission was obtained from the Research and Ethics Committee of school of Nursing and Midwifery, Addis Ababa University. An official letter from the school of nursing and midwifery at Addis Ababa University was written to Addis Ababa health Bureau and the objective of the study was communicated to the ethical committee members of the Addis Ababa health Bureau and the corresponding health centers. Protection of the rights of individuals was ensured by giving due freedom to participate in the study or not to participate oral consent was asked to start the interview. Privacy and confidentiality was maintained during interview. The subjects were informed that any information they provide kept confidential. Any personal identification of the study participants was not being recorded during data collection.

4.13. Dissemination of the result

The study result will be submitted to Addis Ababa University College of Health Sciences, school of Nursing and Midwifery as a partial fulfillment of the requirements for Master Degree in maternity and reproductive health in Nursing. It will also be disseminated to Addis Ababa health Bureau and the health facilities. All attempts will be made to present on different professional conferences and publishing on local or international journals.

5. RESULT

5.1. paternal factors of the participant

A total of 423 fathers were interviewed in this study and out of them 410 were correctly completed making the response rate of 97%. The mean age of the participants was 32.02 ± 5.36 year and two third of respondents were in between 25 to 34 years, the mean time of the fathers interviewed was 44.49 ± 3.037 days ranges from 36 to 59 days of delivery. Out of 410 reported, 153 (37.3%) were first-time fathers, while 257 (62.7%) were experienced fathers, the majority of them 385 (93.9%) fathers had one newborn, and the rest were had twin and triple new born, and 210 (51.2%) of father were orthodox by religion, 180 (43.9%) of fathers were completed higher education, 370 (90.2%) of fathers were employed. among employed 331 (89.5%) were permanent employees and 39 (9.5%) of them were temporary. Of these 312 (76%) were received paternal leave. The average family income of the respondents were 5064 ± 2669.41 Ethiopian Birr, ranges from 1000 to 26,000 and 257 (62.7%) of the respondents were not comfortable by their family income, 42 (10.2) of the participant were using at least one of the substance (alcohol, chat, cigarette) (Table 1).

Table 1 paternal factors of fathers who come to postnatal follow up clinic with their partner in Addis Ababa public health centers, Ethiopia.

Variable	Frequency (n=410)	Percent
Paternal age		
20-24	14	3.4
25-29	150	36.6
30-34	130	31.7
35-39	61	14.9
40-44	42	10.2
45-49	13	3.2
Number of children in household		
One	153	37.3
≥two	257	62.7
Religion		
Orthodox	210	51.2
Muslim	114	27.8
Protestant	71	17.3
Other	15	3.7
Educational status		
No formal education	13	3.2
Read and write	17	4.1
Completed primary education	60	14.6
Completed secondary education	140	34.1
Completed higher education	180	44.0
Number of new born		
One new born	385	93.9
Twin new born	25	6.1
Employment status		
Employed	370	90.2
Unemployed	40	9.8
Family income		
≤1650	11	2.6
1,651-3,200	77	18.8
3,201-5,250	186	45.4
5,251-7,800	96	23.4
7,801-10,900	24	5.9
>10,900	16	3.9
Comfortable to your family income		
Yes	153	37.3
No	257	62.7
Substance use		
Yes	42	10.2
No	368	89.8
History of depression		
Yes	17	4.1
No	393	95.9

5.2. Relationship characteristics of the participants

All of the respondents were married and almost all of them 408 (99.5 %) were living together with their partner and almost all of the respondents 407 (99.3%) were one wife and, Almost all of fathers, 409 (99.8%) reported as nuclear family setup. 407 (99.3) of them were one wife and 355(86.6%) of the respondents were respond good marital relation. About three fourth of the respondents were good relationship with their parents, support of friend and family support; 70.2%, 72.9%, 73.4 % respectively (Table 2).

Table 2 Relationship characteristics of fathers who come to postnatal follow up clinic with their partner in Addis Ababa public health centers, Ethiopia.

Variables	Frequency (n=410)	Percent
Family setup		
Nuclear family	409	99.8
Joint family	1	0.2
Good relationship with parents		
Yes	288	70.2
No	122	29.8
Support of friends		
Yes	299	72.9
No	111	27.1
Marital status		
Married living together	408	99.5
Married living separately	2	0.5
Good marital relation		
Yes	355	86.6
No	55	13.4
Support of family		
Yes	301	73.4
No	109	26.6
Relatives diagnosed with mental illness		
Yes	8	2.0
No	402	98.0
Number of wife		
One	407	99.3
More than one	3	0.7

5.3. Infant and environmental related characteristics of the participants

270 (65.9) of the respondents were living on rented houses, and Only 25 (6.1%) respondents wife were went to her mother or family house for delivery, more than three third of pregnancy were planned 316(77.1%), and 340 (82.9 %) and 342 (93.4%) of fathers were present at the time of antenatal checkup and delivery of infant respectively. Of all respondents 336 (82%) reported that the delivery of their child were vaginal delivery and the major time (301) 73.4% of delivery were term, most 334(81.5%) of infants were delivered at governmental health institution and only 7(1.7%) of respondents had congenital problems. 82(20%) of infants had sleeping problem (Table 3).

Table 3 Infant and environmental related characteristics of fathers who come to postnatal follow up clinic with their partner in Addis Ababa public health centers, Ethiopia.

Variables	Frequency (n= 410)	Percent (%)
Wife went to her mother's house after delivery		
Yes	25	6.1
No	385	93.9
Housing		
Own house	140	34.1
Rental	270	65.9
Was the pregnancy planned		
Yes	316	77.1
No	94	22.9
Attend antenatal check up		
Yes	340	82.9
No	70	17.1
Mode of delivery		
Vaginal delivery	336	82.0
Cesarean section	74	18.0
Attend delivery of your child		
Yes	342	83.4
No	68	16.6
GA of the pregnancy		
Preterm	59	14.4
Term	301	73.4
Post term	50	12.2
Congenital birth problems		
Yes	7	1.7
No	403	98.3
Place of health care		
Governmental	334	81.5
Private	76	18.5
Infant sleeping problem		
Yes	82	20
No	328	80
Loss of child before this pregnancy		
Yes	28	6.8
No	382	93.2

5.3. Prevalence of paternal postpartum depression

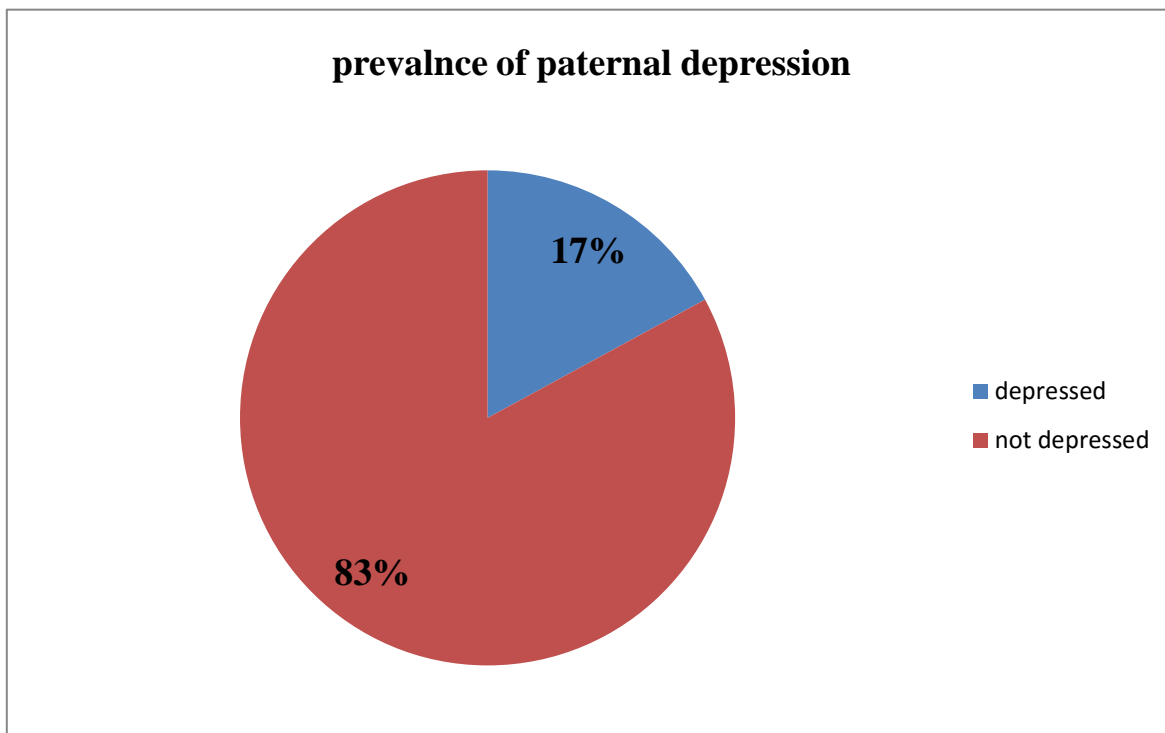


Figure 3 prevalence of paternal postpartum depression among fathers who come to postnatal follow up clinic with their partner in Addis Ababa public health centers, Ethiopia, (N= 410).

From the overall participants 70 (17%) of respondents were scored above cut off point for paternal postpartum depression (≥ 9), and 340 (83%) participants were scored below the cut off point for paternal postpartum depression. (Figure 3)

5.4. Factors associated with paternal postpartum depression

In this study to know the factors associated with paternal postpartum depression first each independent variable was compared with the dependent variable (paternal postpartum depression) using binary logistic regression. The variables that showed the significant level ($p < 0.25$) were exported to multivariate regression model.

There were total of thirteen (13) variables (employment status, comfortable to family income, substance use, history of depression, relationship with parents, friend support, family support, good marital relationship, planned pregnancy, attend antenatal check up with your partner, attend delivery of child delivery, infant sleep problems, and lost child before the birth of this child) were exported to multivariate regression model. From these variables seven (7) of them (employment status, history of depression, relationship with parents, friend support, attending antenatal check up with their partner, attending delivery of child, and lost child before the birth of this child) were no significantly associated with paternal postpartum depression by multivariate regression analysis model, and only six variables were significantly associated with paternal postpartum depression.

The resulted of this study showed that fathers who were not comfortable in family income were three times more likely to develop depression than that of fathers who were comfortable with family income [**AOR= 3.0(95% C.I: (1.1- 8.0))**].

Those fathers who were currently using at least one of substance were five times more likely to develop depression than that of not using substances [**AOR= 5.0 (95% C.I: 1.7- 14.5)**].

In addition fathers who had no family support were also nearly four times more depressed than that of father who had family support [**AOR= 3.8(95% C.I: 1.3-11.1)**].

Furthermore marital relation was also the variable affecting paternal postpartum depression. Those fathers who had no good marital relationship with their partner were 4.4 times more depressed than that of fathers with good marital relation [**AOR= 4.4(95% C.I: 1.6- 11.7)**].

Those fathers who had unplanned pregnancy (delivery) 3.5 times more to be depressed than that of fathers who were planned pregnancy or planned delivery [**AOR= 3.5(95 % (C.I: 1.4 - 8.8)**].

Fathers who had infant with sleep problem were also affect the outcome variable. Those fathers who had infant sleep problem were nearly eleven times more to develop paternal postpartum depression as compared to fathers who had no infant with sleeping problems [AOR =10.9(95% C.I : 4.6- 25.8)].

The other variables such as; employment status, history of depression, relationship with parents, friend support, attending antenatal check up with their partner, attending delivery of child and lost child before the birth of this child were not show statistically significant association with the dependent variable (table 4).

Table 4 Bivariate and multivariate logistic regression analysis of paternal postpartum depression among fathers who come to postnatal follow up clinic with their partner in Addis Ababa public health centers, Ethiopia, (N= 410).

Variables	Depressed n (%)	Not depressed n (%)	COR(95% C.I)	AOR(95%CI)
Employment status				
Employed	56 (15.1)	314(84.9)	1	1
Unemployed	14(35)	26(65)	3.01 (1.48, 6.13)	1.89(0.6,5.6)
Comfortable to family income				
Yes	15 (9.8)	138 (90.2)	1	1
No	55 (21.4)	202(78.6)	2.50(1.36, 4.61)	3.0(1.1, 8.0) *
Substance use				
Yes	24(57.1)	18(42.9)	9.33(4.70, 18.51)	5.0(1.7, 14.5) *
No	46(12.5)	322(87.5)	1	1
History of depression				
Yes	7(41.1)	10 (58.9)	3.66(1.34, 9.99)	3.0(0.5, 16.3)
No	63(16)	330(84)	1	1
Good r/ship with parents				
Yes	42(14.6)	246(85.4)	1	1
No	28 (22.9)	94(77.1)	1.74 (1.02, 2.97)	0.7(0.2, 1.8)
Friend support				
Yes	27(8.8)	279(91.2)	1	1
No	43(41.3)	61(58.7)	7.28(4.18,12.69)	2.7(0.9,8.0)
Family support				
Yes	25(8.3)	276(91.7)	1	1
No	45(41.3)	64(58.7)	7.76 (4.43, 13.58)	3.8(1.3, 11.1) *
Good marital relation ship				
Yes	41(11.6)	314(88.4)	1	1
No	29(52.7)	26(47.3)	8.54(4.58, 15.90)	4.4(1.6, 11.7) *
Planned pregnancy				
Yes	31(9.8)	285(90.2)	1	1
No	39(41.5)	55(58.5)	6.51(3.75, 11.33)	3.5(1.4, 8.8) *
Attend antenatal check up with your partner				
Yes	42(12.4)	298(87.6)	1	1
No	28(40)	42(60)	4.73(2.65, 8.42)	1.5(0.5, 4.1)
Attend delivery of child delivery				
Yes	53(15.5)	289(84.5)	1	1
No	17(25)	51(75)	1.8 (0.9, 3.3)	1.6(0.6, 4.5)
Infant sleep problems				
Yes	45(54.9)	37(45.1)	14.7(8.1, 26.7)	10.9(4.6, 25.8) *
No	25(7.7)	303(92.3)	1	1

Lost child before the birth of this child

Yes	15(53.6)	13(46.4)	6.86(3.0-15.2)	3.9(0.99-11.47)
No	55(14.4)	327(85.6)	1	1

Key 1= reference

Note: * statistically significant at 95% CI, $P < 0.05$ with paternal postpartum depression

6. DISCUSSION

The result of current study showed that the prevalence and associated factors of paternal postnatal depression among fathers who came to postnatal follow-up clinic with their partner in different public health centers of Addis Ababa, Ethiopia. The finding of study showed the current levels of paternal postpartum depression, and its associated factors.

In this study, 70(17%) of fathers had depression; this showed that significant proportion of fathers were suffering from paternal postnatal depression. This figure was nearly similar with which was conducted in Saudi Arabia, Japan, and Northwest china where the levels of paternal postnatal depression were 16.6% (34), 16.7% (37) and 13.6% (39) respectively. The reason for consistency might be due to similarity on the assessment tool.

On the other hand, this proportion was lower when compared with other similar study conducted in Ireland where the level of paternal postnatal depression were 28% (4). This might be due to the population difference, sample size and study period difference.

And this proportion of paternal depression was somewhat higher when compared to other study in japan in 2017 which were 8.8(36), in Australia which were 9.7 (40), in Brazil were (11.9) (13), and in US were (10.3) (12). This discrepancy in prevalence of paternal postnatal depression might be due to the difference in study method, population, assessment tool, and study period. For example, the study conducted in Japan was studied by longitudinal method, and in Australia was used Kessler-6 scale (40), in Brazil was used BDI(13), and in US was used the Center for Epidemiologic Studies Depression Scale (CESD) (12). The current result was also higher when compared with another study conducted in Japan in 2018 which was 11.2% fathers were depressed (38). This difference might be due to cut off point difference, sample size difference, socio-demographic difference.

In the current study paternal postnatal depression were also significantly associated with fathers who were not comfortable to their family income [AOR= 3.0(95% C.I: (1.1- 8.0)]. This finding was consistent with the study done in Ireland(4), and in the University of Lublin(43). It might be because of the fact that after becoming parenthood increases the need of fulfilling the materials needed for the family including the new born basic needs or facilities, due to this

behaving difficulty in economic condition might further affect the mood fathers during this period.

In the current study paternal postnatal depression were also significantly higher among fathers who were using substance than that of nonusers [AOR= 5.0 (95% C.I: 1.7- 14.5)]. This result was in line with the study conducted in Brazil and Japan (13), (48). This might be due taking substance during this period might change the mood of fathers or it might cause them economic crisis and this might result to depression.

Furthermore, fathers who had no family support were also significantly associated with paternal postpartum depression than that of fathers who had family support [AOR= 3.8(95% C.I: 1.3-11.1)]. This result was in line with the a conducted in Ireland(4). This might be due to the fact that feeling of loneliness may change the mood of the fathers. On the other hand, it was not associated in study conducted in Saudi Arabia(34). This might study setting, study period, and population difference.

In addition fathers who had no good marital relationship with their partner were highly associated with paternal postnatal depression [AOR= 4.4(95% C.I: 1.6- 11.7)]. This were not associated in the study conducted in Saudi Arabia(34). This change might due to population, sample size, methodology difference.

In the current study fathers who had unplanned pregnancy significantly associated with paternal postpartum depression than those fathers who had planned pregnancy [AOR= 3.5(95 % (C.I: 1.4 - 8.8)]. This result was in line with the study conducted in 2010 in Japan(35). This might be the similarity in the assessment tool. This result differ from the study conducted in Ireland which no significant association with paternal postpartum depression(4). This might be due to the population difference.

Another association found in the current study was having infant with sleeping problem, father who had an infant with sleeping problem were highly depressed than that of father who had no infant sleeping problems [AOR =10.9(95% C.I : 4.6- 25.8)]. This result was consistent with the study conducted in Ireland (4). These finding shows as might due to the fathers were highly thinking about the healthiness of the child and this further might cause them to develop depression.

7. LIMITATION OF STUDY

Limitation

- ✓ Because the fathers were interviewed in the health facility, there could be social desirability bias.
- ✓ Difficult to establish causal relationship between the independent and the outcome variable.
- ✓ Difficult in making comparisons in prevalence of paternal postnatal depression and its associated factors, due to the limited number of studies.

8. CONCLUSION AND RECOMMENDATION

8.1. Conclusion

Based on this study there was a high proportion (17%) of paternal postnatal depression among fathers. Paternal factors such as; economic problems and substance use, relationship factors family support and marital relationship ; and infant factors planned pregnancy and infant sleeping problems were a significant predictors of paternal postnatal depression in this study. On the other hand paternal postpartum depression was no association with employment status, history of depression, relationship with parents, friend support, attending antenatal check up with your partner, attending during of child delivery, and lost child before the birth of this child.

8.2. Recommendation

Depending on the findings of this study, the issues are recommended for the Addis Ababa health bureau, health professionals, different NGO's and researchers working on health and other sectors.

To Addis Ababa health bureau

- In collaboration with ministry of health is recommended to develop guideline for postnatal follow up which should be integrated with mental and reproductive health screening for both partners (father and mother).
- In collaboration with Addis Ababa city administration is recommended to offer basic facilities needed for child care with acceptable cost during postnatal period for fathers.
- Recommended to provide further health education on the effects of substance use by using different mass media and making it accessible easily by low cost.
- In collaboration with other sectors is better to provide pre marriage counseling service.
- And different NGOs working on sexual and reproductive health (SRH) are better to provide further attention on utilization of family planning to minimize unplanned pregnancy.
- Better to provide training for health care providers regarding paternal postpartum depression and related issues.

To health care professionals

- Are recommended to provide mental health screening for fathers, especially fathers who had economic problem, substance users, unplanned deliveries, and infant sleeping problems.

To researchers

- The researchers are recommended to conduct further research by using different design (community based, mixed study), setting, location to identify further risk factors to paternal postpartum depression.

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10. ANNEXES

Annex I- English version information sheet

Addis Ababa University College of Health Science School of Nursing Department of Nursing and Midwifery: This sheet is to be ready for the participants of the study.

Good morning/afternoon, my name is _____ and I am one of the data collector for the study being conducted by Addis Ababa University, College of Health Sciences, school of Nursing and Midwifery for partial fulfillment of MSc in Maternity and Reproductive Health Nursing, on a topic entitled “Prevalence and associated factors of paternal postpartum depression among fathers who come to postnatal follow up clinic with their partner in selected public health centers of Addis Ababa, Ethiopia, 2019”. For this study, you are selected as a participant and before getting your consent to participate in the study, all the necessary information that you need to know related to the study is stated as follows;

Objective: to Prevalence and associated factors of paternal postpartum depression among fathers who come to postnatal follow up clinic with their partner in selected public health centers of Addis Ababa, Ethiopia, 2019.

Significance of the study: The study can be useful in adding the knowledge on the regarding level of depression father with the new born. It also important to design training for health care providers who are giving care and support for postnatal clinics. This study can be used as a reference for other researchers to do further study on the topic area. This questionnaire might take 10 -15 minutes. Your name will not be written anywhere in the study and all the information you give us is confidential except for the purposes of this study and it will never be disclosed for the third parity. In addition, I would like to inform you that by participating in this study, you will get no short term or long term risk or benefit. I also would like to inform you that you have a full right to withdraw from the study at any time. Your cooperation and willingness to participate for the study is very helpful.

Name of principal investigator: Getaye Worku **Date:** _____
Signature _____

Address of PI: Mobile: +251920763582, E-Mail: getaye.mw2014@gmail.com

Annex II- Consent

ADDIS ABABA UNIVERSITY COLLEGE OF HEALTH SCIENCE SCHOOL OF
NURSING DEPARTMENT OF NURSING AND MIDWIFERY

QUESTIONNAIRE PREPARED TO ASSESS PREVALENCE AND ASSOCIATED
FACTORS OF DEPRESSION AMONG FATHER WHO COME TO POSTNATAL CLINIC
WITH THEIR PARTNER IN SELCTED ADDIS ABABA PUBLIC HEALTH CENTERS,
ETHIOPIA, 2019.

Consent

My name is ----- I am MSc student in Addis Ababa University,
College of Health Sciences, School of Nursing, Department of Nursing and Midwifery. I am
conducting a study to determine prevalence and associated factors with depression among
fathers who come to PP clinic with their partner. If you decide to participate in the study, you
will be asked some questions on the questionnaire below.

Any information you provide will be kept confidential. Your name will not appear on the
questionnaire. Any information you provide will not be used against you. Your responses will
not bring any harm to you and will not affect your job.

You are free to choose whether or not you to participate in the study.

Do you agree in this study?

Yes No

Thank you for Your Cooperation!

Name of the Interviewer _____Signature _____date _____

Name of the supervisor _____Signature _____date _____

Questions related to Prevalence and associated factors of paternal postpartum depression

Facility code _____ Date: _____

Paternal socio demographic and related characteristics

S no.	Questions	Response option	Code
101	Father's age in years	-----	
102	Newborn's age in days	-----	
103	Number of children in household	-----	
104	What is your Religion?	Orthodox Christian Protestant Muslim Other (specify...	
105	What is the father's educational status;	1. No formal education 2. Read and write 3. Completed primary education 4. Completed secondary education 5. Completed higher education	
106	Number of newborn babies	1. single 2. Twin 3. Other (specify...	
107	Father's employment status (Are you currently employed	1. Employed 2. Unemployed 3. Other (speci..	Skip to 110 If unemployed
108	Employment status if employed	1. Permanent 2. Temporary	
109	If employed are you received paternal leave	1. Yes 2. No	
110	How much your average family income in Birr?	-----	
111	Are you comfortable to your family income?	1. Yes 2. No	
112	Residence	1. urban 2. rural	
113	Your housing / accommodation condition.	1. your own home 2. rental home 3. Other (specify...	

114	Did you currently use any kind of substance?	1. Yes 2. No	If no Skip to Ques No. 116
115	If you are using substance specify (cigarette, alcohol)	
116	Did you have known history of Depression	1. yes 2. No	

Part II- Relationship and related characteristics

201	What is your family setup?	1. Nuclear family 2. Joint family	
202	Did you have a good relationship with your parents?	1. YES 2. No	
203	Did you have support of friends?	1. Yes 2. No	
204	Did you have the support of family?	1. Yes 2. No	
205	Have any of your close relatives been diagnosed with mental illness or depression (mother, father, brother, or sister)?	1. yes 2. No	
206	Marital status	1. Married: living together 2. Married: living separately 3. Unmarried 4. Other (specify...	
207	How money wife did you have	1. One 2. More than one	
208	Did you think your marital relationship good?	1. Yes 2. No	

PART III- Infant and environmental related factors

301	Did your wife go to her mother's house post-delivery?	1. Yes 2. No	
302	Was this pregnancy planned?	1. Yes 2. No	
303	Did you attend antenatal checkups with your wife	1. Yes 2. No	
304	What was the mode of delivery?	1. Vaginal delivery 2. Cesarean section	
305	Did you attend the delivery of your child? (Present during delivery of your baby)	1. Yes 2. No	
306	Gestational age at delivery	1. Preterm 2. term 3. post term	
307	Has your newborn child been diagnosed with any of congenital birth problems	1. yes 2. no	If no skip

			to ques. 309
308	If there is congenital birth problem specify it	-----	
309	Place of health care	1. governmental 2. private	
310	Did your infant has Infant sleep problem	1. yes 2. No	
311	Had you ever lost a child before the birth of this child?	1. yes 2. no	

Part IV Part EPDS (Edinburgh postnatal depression scale) responses to assess depression asked in the past 7 days

S no	Questions	0	1	2	3	Code
401	In the past seven days have you ever experienced laugh and see the funny side of things?	As much as I always could	Not quite so much now	Definitely not so much now	Not at all	
402	In the past seven days have you ever looked forward with enjoyment to things?	As much as I ever did	Rather less than I used to	Definitely less than I used to	Hardly at all	
403	In the past seven days have you blamed yourself unnecessarily when things went wrong?	No, never	Not very often	Yes, some of the time	Yes, most of the time	
404	In the past seven days have you ever been anxious or worried for no good reason?	No, not at all	Hardly ever	Yes, sometimes	Yes, very often	
405	In the past seven days have you felt scared or panicky for no very good reason?	No, not at all	No, not much	Yes, sometimes	Yes, quite a lot	
406	In the past seven days things have been getting on top of you?	No, I have been coping as well as ever	No, most of the time I have coped quite well	Yes, sometimes I haven't been coping as well as usual	Yes, most of the time I haven't been able to cope at all	
407	In the past seven days have you been so unhappy that you have had difficulty sleeping?	No, not at all	Not very often	Yes, sometimes	Yes, most of the time	

408	In the past seven days have you felt sad or miserable?	No, not at all	Not very often	Yes, quite often	Yes, most of the time	
409	In the past seven days have you been so unhappy that you have been crying?	No, never	Only occasionally	Yes, quite often	Yes, most of the time	
410	Thought of harming your self	Never	Hardly ever	Sometimes	Yes, quite often	

Annex III- Amharic version information sheet and consent

የጥናቱ ተሳታፊዎች የመረጃ ቅጽ

በአዲስ አበባ ዩኒቨርሲቲ ጤና ሳይንስ ኮሌጅ የነርስ እና ሚድዋይሬሪ ት/ቤት ነርስ እና ሚድዋይሬሪ ት/ት ክፍል፤

እኔ ከዚህ በታች ስሜ የተጠቀሰው በአዲስ አበባ ዩኒቨርሲቲ ፣ጤና ሳይንስ ኮሌጅ ፣የነርስ እና ሚድዋይሬሪ ት/ቤት፣ በነርስ እና ሚድዋይሬሪ ት/ት ክፍል በ “Maternity and Reproductive Health Nursing ” ድህረ ምረቃ ተማሪ ስሆን “Prevalence and associated factors of paternal postpartum depression among fathers who come to postnatal follow up clinic with their partner in selected public health centers of Addis Ababa, Ethiopia, 2019. ”

በሚል ርዕስ በአዲስ አበባ ጤና ጣቢያዎች ጥናት እያካሄድኩ እገኛለሁ ። ለዚህም ጥናት እርስዎ እንዲሳተፉ ተመርጠዋል። በጥናቱ ላይ ለመሳተፍ ፍቃደኛነትዎን ከመግለፅዎ በፊት ከጥናቱ ጋር በተገናኘ የሚያስፈልጎትን መረጃ ከስር እንደሚከለው ተገልጧል።

የጥናቱ አላማ:- በአዲስ አበባ ጤና ጣቢያዎች ከባለቤታቸው ጋር በድህረ ወሊድ ክፍል በሚመጡ አባቶች ላይ የመደበት ስርጭትን እና ተያያዥ ጉዳዮች ለማጥናት ሲሆን፣ የጥናቱ ጠቀሜታ ይህ ጥናት አባቶች ልጅ ከወለዱ በኋላ ያለውን የመደበት ሁኔታ ያሳያል፤ እንዲሁም አባቶች ልጅ ከወለዱ በኋላ በጤና ባለሙያዎች ለሚደረግ ድጋፍ ስልጠና ለመቅረፅ ይረዳል፤ በተጨማሪም ይህ ጥናት ሌሎች አጥኚዎች በዚህ ርዕስ ዙሪያ ጥናታቸውን እንዲያካሄዱ እንደ ማጣቀሻ ሊጠቀሙበት ይችላሉ።

መጠይቁ ከ10 -15 ደቂቃ ሊፈጅ ይችላል። በጥናቱ ላይ የእርሶ ስምና አድራሻ አይጠቀስም። የሚሰጡትም መረጃ ከዚህ ጥናት አላማ ውጭ ለሌላ አካል ተላልፎ አይሰጥም ሚስጥራዊነቱም የተጠበቀ ይሆናል። በዚህ ጥናት ላይ በመሳተፍዎ የሚደርስበት ጉዳት ወይም የተለየ ጥቅም አይኖርም። በዚህ ጥናት መሳተፍ ፈቃደኛ ካልሆኑ ወይም በመሀል ማቋረጥ ከፈለጉ የማቁዋረጥ ሙሉ መብት እንዳሎት ልገልጽሎት እወዳለሁ። በጥናቱ ላይ ለመሳተፍ የእርሶ ትብብር እና ፈቃደኝነት እጅግ ጠቃሚ ነው።

የጥናት አድራጊዉ ስም:- ጌታዬ ወርቁ ቀን -----**ፊርማ** -----**ሰ.ቁ--**
+25120763582 አ.-ሜይል:- getaye.mw2014@gmail.com

ፈቃደኝነት መግለጫ ቅፅ

በአዲስ አበባ ዩኒቨርሲቲ ጤና ሳይንስ ኮሌጅ የነርስ እና ሚድዋይፈሪ ት/ቤት ነርስ እና ሚድዋይፈሪ ት/ት ክፍል

በአዲስ አበባ ጤና ጣቢያዎች ከባለቤታቸው ጋር በድህረ ወሊድ ክፍል በሚመጡ አባቶች ላይ የመደበት ስርጭትን እና ተያያዥ ጉዳዮች ለማጥናት የተዘጋጀ መጠይቅ

ስሜ -----ይባላል። በአዲስ አበባ ዩኒቨርሲቲ ፣ጤና ሳይንስ ኮሌጅ ፣የነርስ እና ሚድዋይፈሪ ት/ቤት፣ በነርስ እና ሚድዋይፈሪ ት/ት ክፍል በ “ Maternity and Reproductive Health Nursing” ድህረ ምረቃ ተማሪ ስሆን “Prevalence and associated factors of paternal postpartum depression among fathers who come to postnatal follow up clinic with their partner in selected public health centers of Addis Ababa, Ethiopia, 2019”. በሚል ርዕስ በአዲስ አበባ ጤና ጣቢያዎች ከባለቤታቸው ጋር በድህረ ወሊድ ክፍል በሚመጡ አባቶች ላይ ጥናት እያካሄድኩ እገኛለሁ ። በዚህም ጥናት ለመሳተፍ ፈቃደኛ ከሆኑ እንዲሞሉ በሚሰጡት መጠይቅ ላይ ከጥናቱ ጋር የተያያዙ አንዳንድ ጥያቄዎችን እንዲመልሱ ይጠየቃሉ።

ማንኛውም የሚሰጡን መረጃ በሚስጥር ይጠበቃል። የእርሶ ስም በመጠይቁ ላይ አይገለፅም ። የሚሰጡን መረጃ በእርሶ ላይ እንደ መረጃ አይወሰድም ። ምላሽ በእርሶ ላይም ሆነ በስራዎች ላይ ምንም አይነት ጉዳትም አይፈጥርም ። በጥናቱ ላይ ለመሳተፍም ሆነ ለመሰጠትም ነፃ ነዎት።

በዚህ ጥናት ለመሳተፍ ፍቃደኛ ነዎት?

አዎ አይደለሁም

ስለ ትብብርዎ እናመሰግናለን !

- 01. የመረጃ ሰብሳቢው ስም----- ፊርማ -----
- 02. የተከታታይ ስም-----ፊርማ -----
- 03. ቃለ መጠይቅ የተደረገበት ቀን-----

Annex IV- Amharic version questionnaire

ቃለ መጠይቅ

የመጠይቅ መለያ ቁጥር _____ የጣቢያው ኮድ _____

ከድህረ ወልድ የአባቶች መደበኛ ጋር የተያያዙ ጥያቄዎች

መመሪያ፣ ከተጠያቂው መልስ ጋር የሚመሳሰለውን መልስ መርጠው ያክብቡ።

ክፍል 1: ማህበራዊና የኋሊ ታሪክ ባህሪ ጋር የተገናኙ ጥያቄዎች

ተራቁ	ጥያቄ	መልስ	ኮድ
101	እድሜዎ ስንት ነው? (በዓመት)	----- ዓመት	
102	ልጅዎ ከተወለደ ስንት ቀን ሆነው? (በቀናት)	--- ቀናት	
103	ስንት ልጅ አለዎት?		
104	ሀይማኖትዎ ምንድን ነው?	ሀ. ኦርቶዶክስ-----1 ለ. ፕሮቴስታንት-----2 ሐ. ሙስሊም-----3 መ. ሌላ ካለ ይጠቀስ.....	
105	የትምህርት ደረጃዎ?	ሀ. መደበኛ ትምህርት ያልተማሩ-----1 ለ. ማንበብ እና መጻፍ-----2 ሐ. አንደኛ ደረጃ የጨረሱ-----3 መ. ሁለተኛ ደረጃ የጨረሱ-----4 ረ. ከፍተኛ ደረጃ የጨረሱ-----5	
106	የጨቅላ ሕፃናት ቁጥር ስንት ነበር?	ሀ. አንድ-----1 ለ. ሙንታ-----2 ሐ. ሌላ ካለ.....	
107	የእርስዎ ስራ ሁኔታ (በአሁኑ ስራ አለዎት)?	ሀ. አዎ-----1 ለ. የለኝም-----2 ሐ. ሌላ ካለ...	ስራ ከሌላቸው እባክዎ ወደ ጥ. ቁ 110 ይለፉ
108	ስራ ካልዎት የስራዎ ሁኔታ	ሀ. ቋሚ-----1 ለ. ጊዚያዊ-----2	
109	ድህረ ወልድ የአባት ፈቃድ አግኝተዋል	ሀ. አዎ-----1 ለ. አላገኘሁም-----2	

110	ወርሀዊ የቤትሰብ አማካይ ገቢ ምን ያክል ነዉ (በብር)	---	
111	ያለዎት የገቢ መጠን ቤቶን ለመምራት አስችሎዎታል?	ሀ. አዎ-----1 ለ. የለም-----2	
112	የመሚኖሩበት ቦታ	ሀ. ከተማ-----1 ለ. ገጠር-----2	
113	የሚኖሩበት ቤትዎ ሁኔታስ	ሀ. በራሴ ቤት -----1 ለ. በክራይ ቤት-----2 ሐ. ሌላ ካለ ይጠቀስ.....	
114	አደንዛዥ ዕፅ ይጠቀማሉ?	ሀ. አዎ-----1 ለ. አልጠቀም-----2	አልጠቀም ከሆነ ወደ ጥ. ቁ 116
115	ከተጠቀሙ እባክዎ ይጠቀሱ(ሲጋራ፣ ቢራ....)	----	
116	ድብርት ገጥሞዎት ያዉቃል?	ሀ. አዎ-----1 ለ. አልገጠመኝም-----2	

ክፍል 2፣ ከማህበራዊ ግንኙነት ጋር የተገናኙ መጠየቆች

ተ. ቁ	ጥያቄ	መልስ	
201	እርስዎ የሚኖሩበት ቤተሰብ ሁኔታ?	ሀ. ከባለቤትዎ እና ልጅዎ ጋር-----1 ለ. ከእርስዎ ወይም ከባለቤትዎ ዘመዶች ጋር (አያት፣ አጎት፣ አክስትጋር) -----2	
202	ከወላጅዎ ጋር ጥሩ ግንኙነት አለዎት?	ሀ. አዎ-----1 ለ. የለኝም-----2	
203	የጓደኞች ድጋፍ አለዎት?	ሀ. አዎ-----1 ለ. የለኝም-----2	
204	የቤተሰብ/ የትዳር አጋርዎ ድጋፍ አለዎት?	ሀ. አዎ-----1 ለ. የለኝም-----2	
205	በቤተሰብ (እናት, አባት, ወንድም ወይም እህት) በሀይማኖት በሽታ (ድብርት) ያጋጠመው ሰው ነበር?	ሀ. አዎ-----1 ለ. የለም-----2	

206	የጋብቻ ሁኔታ?	ሀ. የገባ- አብሮ የሚኖር-----1 ለ. የገባ / ለብቻ - የሚኖር-----2 ሐ. የላገባ-----3 መ. ሌላ ካለ ይጠቀስ-----	
207	ስንት ሚስት አለዎት?	ሀ. አንድ-----1 ለ. ከአንድ በላይ-----2	
208	የጋብቻዎ ግንኙነት ጥሩ ብለው ያስባሉ ነው?	ሀ. አዎ-----1 ለ. አይደለም-----2	

ክፍል ሦስት፣ ከሕፃንዎ እና ከአካባቢያዊ ጋር የተገናኙ ጉዳዮች

ተ.ቁ	ጥያቄ		
301	ባለቤትዎ ከወለደች በኋላ ወደ እናቷ ቤት ሄዳለች	ሀ. አዎ-----1 ለ. አይደለም-----2	
302	እርግዝናውን ከባለቤትዎ ጋር አቅደው ነው ያረገዙት?	ሀ. አዎ-----1 ለ. አይደለም-----2	
303	ከባለቤትዎ ጋር ወደ ቅድመ ወሊድ ክትትል ይሳተፉ ነበር?	ሀ. አዎ-----1 ለ. የለም-----2	
304	ልጅዎ የተወለደበት ሁኔታ?	ሀ. በምጥ-----1 ለ. በቀዶ ጥገና-----2	
305	ልጅዎ በሚወለድበት ሰዓት አብረው ነበሩ?	ሀ. አዎ-----1 ለ. አልነበርሁም-----2	
306	ልጅዎ ሲወለድ የእርግዝና ጊዜው ምን ያህል ነበር?	ሀ. ጊዜው ያልደረሰ-----1 ለ. ጊዜው ደረሰ-----2 ሐ. ጊዜው ያለፈ-----3	
307	የተወለደው ልጅዎ በህክምና የተረጋገጠ የአፈጣጠር ችግር አለባት ተብለዋል?	ሀ. አዎ-----1 ለ. የለም-----2	የለም ከሆነ ወደ ጥ. ቁ 309
308	የ308 አዎ ከሆነ ይጠቀስ	
309	ልጅዎ የተወለደው በታ	ሀ. የመንግስት ጤና ተቋም-----1 ለ. የግል ጤና ተቋም-----2	
310	ልጅዎ የእንቅልፍ ችግር አለው?	ሀ. አዎ-----1 ለ. የለውም-----2	
311	ይህን ልጅ ከመወለዱ በፊት ልጅ አጥጠው ያዉቃሉ? (ሞቶብዎት) ያዉቃል?	ሀ. አዎ-----1 ለ. አላጋጠመኝም-----2	

ክፍል አራት፡ የአማርኛ ትርጉም ኢ.ፒ.ዲ.ኤስ.

ተ.ቁ	ጥ.ቁ	0	1	2	3	ከድ
401	ባለፉት ሰባት ቀናቶች ውስጥ መሳቅናየነገሮችን አስደሳች ጎን ማይት ችለዋል?	ሁሌ የምችለውን ያህል	አሁን በጣም ብዙም አይደለም	በእርግጥ አሁን-ብዙም አይደለም	በጭራሽ አይደለም	
402	ባለፉት ሰባት ቀናቶች ውስጥ ነገሮችን ወደፊት በደስታ ያዩ ነበር?	አዎ ሁሌም እንደማደርገው	.በፊት እንደማደርገው ያነሰ	በእርግጥ በፊት ከማደርገው ያነሰ	በአጠቃላይ ከባድ ነው	
403	ባለፉት ሰባት ቀናቶች ውስጥ ነገሮች ወደ አላስፈላጊ ሁኔታ ሲያመሩ ያለምክንያት እራስዎን ወቅሰዋል?	አይደለም መቼም ሆኖ አያውቅም	ብዙ ጊዜ አይደለም	አዎ አንዳንዴ	አዎ ብዙውን ጊዜ	
404	ባለፉት ሰባት ቀናቶች ውስጥ ያለምንም በቂ ምክንያት ተሽብረው ወይም ተጨንቀው ያውቃሉ?	አይደለም መቼም ሆኖ አያውቅም	እምብዛም	አዎ አንዳንዴ	አዎ በጣም ብዙ ጊዜ	
405	ባለፉት ሰባት ቀናቶች ውስጥ ያለምንም በቂ ምክንያት የፍርሀትና የድንጋጤ ስሜት ተሰምቶት ያውቃሉ?	አይደለም በጭራሽ አይሰማኝም	አይደለም ብዙ ጊዜ አይሰማኝም	አዎ አንዳንዴ	አዎ በጣም ብዙ ጊዜ	
406	ባለፉት ሰባት ቀናቶች ውስጥ ነገሮች ከቁጥጥር ውጭ ሆኖብዎት ያውቃል?	አይደለም ሌክ እንደ በፊቱ በጥሩ ሁኔታ ነገሮችን እቋቋማለሁ	አይደለም ብዙ ጊዜ በጥሩ ሆኔታ ነገሮችን እቋቋማለሁ	አዎ ልክ እንደ ብዙ ጊዜአንዴ ነገሮች መቋቋም አልችም	አዎ ብዙ ጊዜ ነገሮችን በአጠቃላይ መቋቋም አልችም	
407	ባለፉት ሰባት ቀናቶች ውስጥ በጣም ደስተኛ ባለመሆንም እንቅልፍ እምቢ ብልዎት ያውቃሉ ?	በጭራሽ አይደለም	በጣም ብዙ ጊዜ አይደለም	አዎ ብዙውን ጊዜ	አዎ በጣም ብዙውን ጊዜ	

408	ባለፉት ሰባት ቀናቶች ውስጥ የሀዘንና ብስጭት ስሜት ተሰምቶት ያውቃሉ?	በጭራሽ አይደለም	በጣም ብዙ ጊዜ አይደለም	አዎ ብዙውን ጊዜ	አዎ በጣም ብዙውን ጊዜ	
409	ባለፉት ሰባት ቀናቶች ውስጥ በጣም ከማዘንዎት የተነሳ አልቅሰው ያውቃሉ?	መቼም አይደለም	አልፎ አልፎ ብቻ	አዎ ብዙ ጊዜ	አዎ አብዛኛውን ጊዜ	
410	ባለፉት ሰባት ቀናቶች ውስጥ እራስዎን ለመጉዳት አስበው ያውቃሉ?	በጭራሽ መቼም	እምብዛም	አንዲንዴ	በጣም ብዙ ጊዜ	