



Postpartum Depression Among Mothers Who Gave Birth and Attended Public Health
Facilities of East Shewa Zone, Ethiopia.

Asnake Tesfaye

A Dissertation to be Submitted to the School of Graduate Studies of Addis Ababa University
for the Fulfillment of the Requirements for the Degree of Doctor of Philosophy (Ph.D) in
Social Work and Social Development

Postpartum Depressions among Mothers who Gave Birth and Attending Public Health
Facilities of Eastern Shewa Zone, Ethiopia

By

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DEACLARATION

I, under signed, declare that this dissertation entitled: Postpartum Depressions among Mothers who Gave Birth and Attending Public Health Facilities of East Shewa Zone, Ethiopia, 2019: A Mixed Method Study is my original work, has not been presented for any degree in any other university, and that all sources of materials used for it are duly acknowledged.

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CONFIRMATION AND APPROVAL

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ACRONYMS AND ABBREVIATIONS iii

ANC	Antenatal Care
DHS	Demographic and Health Survey
EDHS	Ethiopia Demographic and Health Survey
IDI	In-depth Interview
LAMICs	Low- and middle-income countries
MMR	Mixed Method Research
PHSW	Public Health Social Work
PPD	Postpartum Depression
PNC	Postnatal Care

TABLE OF CONTENTS

Contents

Deaclaration of Approval Form	i
Acknowledgement	ii
Acronyms and Abbreviations	iii
Table of Contents	iv
Tables and Figures	viii
Abstract	ix
CHAPTER ONE: BACKGROUND	1
1.1. Background of the study	1
1.2. Statement of the Problem	3
1.3. Objective of the stud	6
General objective	6
Specific objectives for Quantitative Study	6
Objectives of qualitative study	6
1.4. Research questions	7
1.5. Rationale for the study	7
1.6. Significance of the Study	9
1.7. Scope of the Study	11
1.8. Operational Definitions	13
1.9. Organization of the proposal	14
CHAPTER TWO: LITERATURE REVIEW	16
2.1. Postpartum Depression and Relevance to Social Work	16
2.2. Major symptoms of postpartum depression	18
2.3. Causes of Postpartum Depression	20
2.4. Socio demographic factors	20
2.5. Social Supports	21
2.6. Prevalence of Postpartum depression	23
2.7. Prevalence and Contributing factors of PPD in Ethiopia	24
2.9. Treatment for postpartum depression	26
2.10. Coping mechanisms with PPD	27

2.11. Midwives' views and Perceptions about Postpartum Depression	29
2.12. Theories of Postpartum depression	29
2.13. Conceptual framework.....	35
CHAPTER THREE: METHODOLOGY.....	36
3.1. Description of Study Area and Study period	36
3.2. Research Paradigm.....	39
3.3. Research Approach	39
3.4. Research Designe	39
3.5. Quantitative Study	41
3.5.1. The source population	41
3.5.2. Study Population.....	41
3.5.3. Inclusion and Exclusion Criteria.....	41
3.5.4. Sampling	41
3.6. Study Period	44
3.7. Instrument.....	44
3.8. Reliability and Validity Testing.....	46
3.9. Variables of the study	48
3.10. Quantitative Data Analysis	47
3.11. Qualitative Study	49
3.12. Selection of Study Participants	48
3.13. Criteria within the target groups	49
3.14. Sampling for qualitative part	49
3.15. Qualitative Data Analysis	50
3.16. Data Quality Control for-Qualitative Study.....	52
3.17. Integrating Quantitative and Qualitative Data	53
3.18. Limitations of the study	54
3.19. Ethical Considerations	57
CHAPTER FOUR: RESULTSvariate	58
4.1. Overview of Results	58
4.2. Socio-demographic and economic characteristics of the participants	58
4.3. Obstetric Characteristics of study participant	60

4.4. Previous history of depression, substance abuse and social support	62
Intimate partner violence	63
Social support	64
4.5. Factors related to family	64
4.6. Prevalence of postpartum depression.....	65
4.7. Predictors of Postpartum depression	65
4.7.1. Postpartum depression by Socio-demographic variables	65
4.7.2. Postpartum Depression by obstetric characteristics	66
4.7.3. Postpartum Depression by previous history, substance abuse and Social Support.....	67
4.7.4. Postpartum Depression by Family-Related Factors	68
4.7.5. Multivariable logistic regression analysis Model predicting Postpartum Depression..	68
4.8. Qualitative Study	72
4.9. Experience of postpartum depression among mothers in East Shewa Zone	74
4.10. Mothers' Experience of Emotional Distress	75
4.11. Related to the newborn	79
4.12. Domestic Violence	81
4.13. Socio- economic status	84
4.14. Economic instability in the country / continuous inflation/ living cost	85
4.15. Mothers' Experience of Social support	86
4.16. Mothers experience in the Hospital	89
4.2. Part two of the qualitative study	90
4.2.1. Characteristics of the seven Professional Midwives	90
4.2.2. General views about their professional life as Midwives	91
4.2.3. Midwives on their views of Postpartum depression	96
CHAPTER FIVE: DISCUSSION.....	101
5.1. Magnitude of postpartum depression	101
5.2. Factors Associated with PPD	103

5.3. PPD and violence against women	105
5.4. Social support	106
5.5. In relation to the hospital	109
CHAPTER SIX: CONCLUSION, RECOMMENDATIONS AND IMPLICATIONS ..	112
6.1. Conclusion	112
6.2. Implications for Social workers	114
6.3. Implications for social work Education	115
6.4. Implications for health professionals	116
6.5. Implications for local policy development	118
6.6. Implications for future research	120
6.7. Recommendations	122
REFERENCES.....	127
Annexes.....	140
Annex I: Consent form.....	140
Information sheet	141
Annex II: Questionnaires	142
Structured Questionnaire English Version.....	142
Structured Questionnaire Amharic Version.....	161
Structured Questionnaire Afaan Oromo Version.....	183
Assurance of PhD. Candidate (Principal investigator)	206

List of Tables and Figures

Tables

Table 1. Characteristics of postpartum depression and Baby blues.....	19
Table 2: Parameters used to determine the sample size for the second study objective...	42
Table 3. In-Depth Interview Sample for PPD mothers	49
Table 4: Summary of the Mixed Method Study Procedure	56
Table 5: SD characteristics of study participants (n=500)	58
Table 6: Factors related to pregnancy among depressed mothers	60
Table 7: Factors related to delivery	61
Table 8: Factors related to previous history of depression	61
Table 9: Family related factor for PPD.....	63
Table 10. Multivariable logistic regression model predicting PPD	69
Table 11: displays the participants' profile for the qualitative study.....	72
Table 12: Themes and sub-themes from PPD IDPs.....	74
Table 13: Characteristics of Midwives who participated in the qualitative part	90
Table 14: Themes and sub-themes from Midwives IDPs.....	91

I. Figures

Figure 1: Conceptual frame work	35
Figure 2: map of the stud area	37
Figure 3: Pragmatism with its corresponding research designs, strategies and methods...	40
Figure 4: Sampling Technique.....	43
Figure 5: Qualitative and Quantitative Integration diagram	52
Figure 6: Diagrammatic presentation of sampling system	53
Figure 7: Intimate partner violence.....	62
Figure 8: Social support	62
Figure 9: Prevalence of PPD	64

Abstract

Postpartum depression (PPD) is a pervasive disease in the big picture of reproductive health. The World Health Organization declared there is no health if the issues of mental health are ignored. Postpartum depression is a serious mental health disability characterized by a prolonged period of emotional disturbance, occurring at a time of major life change and increased responsibilities in the care of a newborn infant. PPD impacts a mother's thinking, feeling or mood and may affect her ability to relate to others and function on a daily basis. Postpartum Depression (PPD) is a serious public health problem that leads to high maternal morbidity and mortality, enormously affecting the infant, family, and society. Thus, the aim of this study was to determine the prevalence and associated factors of PPD. This study also aims to explain mothers' experience of emotional distress in their first postnatal year. A facility-based cross-sectional mixed method approach was employed. Approximately 550 postnatal mothers who gave birth within the past one year had participated in the quantitative part of the study, with 10% non-response rate i.e. 500 participant and 17 research participants were involved in the qualitative part of the study, out of which 10 are postpartum mothers and seven of them are professional midwives. For the quantitative data, a simple random sampling (SRS) technique was used to identify the sampling units from the public health facilities based on their pre-determined patient flow rate. An SRS technique was used to identify study participants using a lottery method. The data were cleaned accordingly and then exported to SPSS Windows version 20.0 for further analysis. The magnitude of postpartum depression among the study population was 23.2%. Postpartum depression is higher among mothers with age below 28 years. domestic violence, unplanned pregnancy, baby with sleeping problems, health of the baby, lack of social support and partner's substance use has significant association with postpartum depression. The magnitude of postpartum depression in East Shewa zone, East Ethiopia was high. This underline the

necessity of giving attention to PPD by policy makers, health professionals and social care planners for integrating of screening strategies for depression following childbirth.

Keywords: East Shewa Zone, Ethiopia, Emotional distress, Postpartum depression (PPD) and Social support.

CHAPTER ONE

1.1 Background of the study

Globally, maternal mental health problems like depression and anxiety are very common in the course of the postnatal period. Maternal mental health issues are a major health and social challenges that is necessary to be considered. Appropriate prevention and treatment is important to reduce a devastating impact on mothers, newborns, families, and societies. Maternal mental illnesses are one of the causes of maternal death during pregnancy and after childbirth (Howard, Piot & Stein, 2014). In high-income countries, about one in ten mothers have mental health problems while in low and middle-income countries one in three to one in five mothers have a mental health problem during pregnancy and after childbirth. For example, African countries such as Ethiopia, Nigeria, Senegal, South Africa and Uganda have high rates of maternal mental health problems during pregnancy (World Health Organization WHO, 2008). Poor perinatal mental health has an undesirable impact on women in raising their child and on the growth and development of the child. The consequence of perinatal mental health problems is severe in children and associated with a range of adverse outcomes such as childhood depression, nutritional problems, issues with breastfeeding, cognitive and motor delays, behavioural problems, and low academic achievement (Husain, Cruickshank, Tomenson, Khan & Rahman, 2012). In low income countries, it is estimated that approximately 16% of pregnant mothers and 20% of postpartum mothers are affected by a common perinatal mental disorder such as anxiety and depression (Fisher et al., 2012).

According to Hanlon (2012), one of the major common mental health conditions to affect mothers globally is depression. Depression is one of the major health problems that is twice as common in women of childbearing age than in men, and is estimated to become the

second most prevalent of all general health problems globally by 2020 (Norhayati, Hazlina, Asrenee & Emilin, 2015). These maternal depressive conditions include antenatal depression, postpartum depression, and postpartum psychosis. Depression during pregnancy and after childbirth increase the suffering and disability of the mother and reduce the mother's response to newborn needs. Studies showed that early diagnosis and intervention with mothers leads to improved raising and development of the child and reduces the occurrence of diarrhea and malnutrition (Rahman, Bunn, Lovel & Creed, 2007). Maternal mental health problems could be alleviated by giving appropriate advice and social support during antenatal care visits to new mothers and mothers at risk of perinatal depression (Rahman, Malik, Sikander, Roberts & Creed, 2008)

The sustainable development goal 3(SDG3, target 3.4) indicated that by 2030 the target goal is to reduce by one-third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being in prevention methods of common mental health problems (WHO, 2016). This goal shows a strong focus on preventing and reducing mortality related to common mental health problems. Evidence indicating that some low-income countries have started offering integrated maternal mental health services for the prevention of maternal mental health problems. Low cost interventions that involve primary health care providers influence not only the health of the mothers but also the growth and development of children (Shrivastava, Ramasamy&Shrivastava, 2015)

Women of childbearing age are susceptible to antenatal and postnatal depression and anxiety. Early identification and management of depression during antenatal visits is essential for the health of women, their newborn and family, and as well as for the community as a whole. There are simple and reliable tools and cost-effective interventions to recognize maternal mental health problems during pregnancy and after childbirth at a primary health care level. For instance, health care workers working at maternal and child health care

services can be trained to identify the symptoms and signs of mental health problems and counsel women about their anxiety and stress and about coping methods. Hence, maternal mental health approaches are simple to integrate into ongoing maternal health care services and require strengthening of basic health-care systems (Howard, et al, 2014).

As per the researcher's knowledge in this specific study area, maternal mental health has suffered from a lack of research as evidenced by the search conducted via electronics on the current status of postpartum depression and communication with zonal health offices. The study seeks to explore mothers' experience of emotional distress in their first postnatal year, the type of social support used to prevent or minimize PPD on East Shewa Zone and also aimed to determine the risk factors for PPD among mothers attending public health facilities in East Shewa zone. This is important as base line data to inform social work practice and to assist stakeholders in improving the health care of women using antenatal care services in health facilities.

1.2. Statement of the Problem

Postpartum depression (PPD) is a global problem that demands a worldwide response. Depression is reported as second after HIV/AIDS in its total disability for women in the reproductive age group (WHO, 2001, 2017). PPD is also associated with the transition to parenthood as a stressful time wherein parents are presented with a range of new challenges (Doss, Cicila, Hsueh, Morrison & Carhart, 2014). Kessler (2003) asserted that depression is a prominent source of disease among mothers with an occurrence twofold greater than in men. Postpartum depression can have serious mental health consequences for populations that are of concern to social workers. These populations include financially vulnerable women, adolescent girls, and single mothers (Abrams & Curran, 2007).

The postpartum stage is usually recognized as an amplified season of risk for the occurrence of severe mood disorders. Postpartum depression can have adverse long-term effects. For the mother, the episode can be the precursor of chronic recurrent depression. For her children, a mother's ongoing depression can contribute to emotional, behavioral, cognitive, and interpersonal problems in later life (Jacobsen, 1999). Postpartum depression affects the quality of life of mothers, has negative consequences for the emotional, behavioral, and cognitive functioning of their infants, and threatens the healthy functioning of the entire family (Sobey, 2002).

Several contemporary research articles are reporting depression as one of the crucial public health problems. (Andersson, Sundstrom-Poromaa, Wulff, Astrom & Bixo, 2004; Dayan, Creveuil, Herlicoviez, Herbel, Baranger, Savoye, et al. 2002). Postpartum depression attacks mothers by disabling her normal life and daily functions. (Senturk, Hanlon, Medihin, Dewey, Araya, Alem, Prince & Stewart, 2012). The severity of the problem of postpartum depression is; it will not end with limiting the daily life. But also come up with manners of less self-care, such behaviors are considered as a health risk behavior that has long term consequences on the mothers. (Katon, Russo, Gavin, Melville &Katon, 2011). From this we can infer that PPD is a challenge for not only mothers but affects family and community in general.

Moreover, several literatures are witnessing the adversative bearings of postpartum depression on the babies as well, in this sense, we can say PPD is a serious problem that affect the future generation (Grote, Bridge, Gavin, Melville, Iyengar & Katon, 2010). PPD is affecting one mothers out of four, affecting mothers will affect the children in a numerous way, and hence, we are seeing PPD has great implication in impacting the generations to come as well.

As Illechukwu (1991), depicted postpartum depression is a substantial public health problem that throw hostile impact on mothers' daily activity and her self-care and also the impact arrays child health and development including family cohesion. PPD is a problem which brings unsafe condition to a family. Once mothers are with PPD they totally loss their motivation and interest with daily life and become careless. (Carney, Freedlanda, Millerb & Jaffec, 2002)

Furthermore, mothers with emotional distress exhibits trouble of attachment and interacting with her newborn; which implies developmental problems of her child. (Luskin et al., 2007). On the other hand, we are seeing some literatures who are suggesting long-lasting postpartum depression which can result with deprived language skills among children. Postpartum depression, if left untreated, negatively impacts the mothers' ability for proper maternal responsibility. Hence, PPD negatively affects her self-esteem while putting the child at unnecessary risks in both psychologically and physically (Perfetti, et al., 2004).

Some mothers disguise the real symptoms of PPD and this makes the diagnosis process difficult. Midwives and mothers might not always distinguish indirect symptoms of postpartum depression (Chaudron et al., 2005). Mothers who are unable to recognize or identify depression often cannot articulate their feelings, thus postpartum depression persists untreated. Therefore, such research is important in creating awareness to start a proper screening for postpartum (Howell et al., 2005). Underestimating symptoms of PPD or lacking of knowledge towards PPD will have a devastating impact as evidenced by the literatures from all over the world.

The Ethiopian demographic and health survey report of 2016 revealed that; mothers and their babies are most defenseless during postnatal period. Many other long-term

conditions also disable women who survive delivery-related complications including depression (EDHS, 2016).

The magnitude of PPD is quite alarming in both developed and developing nations (WHO, 2008). The problem in developing countries like Ethiopia is widespread and associated with socioeconomic status and other factors. As to the researcher's knowledge, despite the wide scope of the problem, there are insufficient social work studies which describe the mothers' experience with PPD in the study area and disclose the severity of PPD. Therefore, we need to study the problem of postpartum depression as it has multiple impacts. The impact is not only on mothers but the children's, the future generations, family, community and the nation at large. The researcher of this study believed that, there are no research in the current study area; hence conducting such study will help to have a better understanding of the problem of PPD in the study area. Henceforth, this study aimed to explore on the magnitude and the associated factors of postpartum depression in East Shewa Zone of Ethiopia.

1.3. Aim and Objective of the study

General objective

To Investigate Postpartum Depression Among Mothers Who Gave Birth and Attended Public Health Facilities of East Shewa Zone, Ethiopia, 2019.

Specific objectives for Quantitative Study

- To determine the magnitude of postpartum depression among mothers who gave birth and attended public health facilities in East Shewa Zone.
- To assess factors associated with PPD in relation to obstetric characteristics, previous history of depression, substance abuse, social support and family among mothers who gave birth and attended public health facilities of East Shewa Zone

Objectives of qualitative study

- To explore the experience of postpartum depression among mothers in East Shewa Zone
- To explore the type of social support mothers received during the postpartum period in East Shewa Zone.
- To explore the views and experiences of midwives' about postpartum depression among mothers in East Shewa Zone.

1.4. Research questions

- What is the current magnitude of postpartum depression among mothers in East Shewa Zone?
- What are the factors associated with postpartum depression among mothers in East Shewa Zone?

- How do women experience the postpartum depression within their first postnatal year in East Shewa Zone?
- How do mothers view their experiences of social support during the postpartum period in the East Shewa Zone?
- How do professional midwives view postpartum depression among mothers in East Shewa Zone?

1.5. Rationale for the Study

From my experience, I learned about PPD when I was Master of Social Work (MSW) student in India. As a second year MSW trainee in 2011, I have joined Government hospital named Krishna Teaching Hospital Department of Psychiatry, Mysore, India for one year. Thereby, I worked with health professionals who specialized in mental health. Within the psychiatric inpatient and outpatient departments there were mothers with postpartum depression and postpartum psychosis. I had an opportunity to work with health workers and other professionals as a team member in the psychiatry department. At that time such exposure gave me great insight into the role of a social worker in mental health settings. Though I joined as a course requirement, I developed an interest since then. In addition, I had taken the course Preventive Medicine and Medical Social Work and also psychiatric social work with four credit hours. Such classroom and hospital level engagement spurred an interest in me and inspired me to contribute at this level.

On the other hand, the literature review in the area of PPD in Ethiopia revealed that PPD is a pervasive disease across the country. The World Health Organization report also gave emphasis as PPD is a serious mental health disability characterized by a prolonged period of emotional disturbance, occurring at a time of major life change and increased responsibilities in the care of a newborn infant. PPD impacts a mother's thinking, feelings

or mood, and may affect her ability to relate to others and function on a daily basis.

Postpartum Depression (PPD) is a serious public health problem that leads to high maternal morbidity and mortality, enormously affecting the infant, family, and society.

These issues in the literature convinced me to do more research to confirm the prevalence and factors associated with PPD.

Furthermore, my background as a social worker also accentuates the need to consider the vulnerable and neglected groups of the society in our research and practice. As a social work student, the present and emerging social problems and health problems such as negative effects of globalization, unemployed youth, drug addiction, vulnerable mothers, and disasters are affecting us in complex ways. These have brought questions regarding the adequacy of Social workers to work with public health professionals. I also share the views that claim Social work and public health share a social justice mission to improve, defend, and enhance well-being, working together to ameliorate social health problems (Keefe & Jurkowski, 2013). In Ethiopia it is necessary to open the platform for PHSW. Therefore, I believe it is necessary to conduct research that are linked with both Social work's and Public Health's concern, and the combination of the two as an emerging branch of Social Work i.e. Public Health Social Work (PHSW).

Generally, the three points, i.e. The review literature on the ground, My academic background of social work and my experience with public health setting practical attachment contributed to the emergence of this study. Hence, I would like to give voice and make contribution in doing research in PPD among postpartum mothers.

1.6. Significance of the Study

A study conducted in Melbourne, Australia on PPD pointed to a need for a broader assessment of distress in the PPD with a view to prevention and early intervention (Miller, Pallant & Negri, 2006). Therefore, to mention some of the significance of the current study

includes to the postpartum mothers, to health care practitioners, social work professionals, knowledge production and policy makers as well. Below discussed each of the significances shortly.

Significance for postpartum mothers: The results of the current study may come up with vital benefits for postpartum mothers in many aspects. Exploring the associated factors of postpartum depression that has practically affecting mothers can be exposed through the available means to reach mothers. This could be exposed by local government who requested the researcher to bring the dissertation in hard and soft copy up on the approval of data collection. Hence, the result will help mothers to be aware about the impact of postpartum depression and they can easily manage with necessary consultations once they know PPD symptoms in their own.

Significance for health care practitioners: Our study finding portrays on the current status and activities of midwife by provide insight to inform the impact of PPD. This research also can help health care providers to design appropriate intervention strategies that appreciate postpartum mothers screening and proper actions for those who are with PPD. Furthermore, our research findings will help health care practitioners to raise up to date awareness on PPD and can develop a working screening tools, once they know the prevalence of PPD.

Significance for Social Work Professionals: Traditionally, Social Work has been a field of study concerned with helping the needy to help themselves. This kind of help was similar to the informal help provided by the given community. But, currently the field of Social Work practice is developed and professionalized with empirically-based knowledge. In spite of the trend that social workers have an established history of delivering services to mothers and children, there is limited research published in social work journals to inform

social workers in their work with mothers with PPD (Keefe, Brownstein-Evans, Lane, Carter, & Rouland Polmanteer, 2015). The effects of postnatal depression (PPD) on mothers, their marital relationship, and their children make it an important condition to diagnose, treat, and prevent (Robinson & Stewart, 2001).

Social Workers primarily strive to bring about social welfare of the disadvantage. Therefore, as a social worker our commission is attaining the leading goal of the profession, that is enhancing the overall well-being of all people by responding to the needs of vulnerable members of a society and people living in abject poverty (Rubin, & Babbie, 2012). Such kinds of study will inform the social worker for zooming in to an important focal point to do the needful in the health settings, especially issues related to postpartum depression. Besides, the current finding will help to intensify the social work profession's responsibility with settings such as maternal health. The result we obtain from this study can be important one to activate facility benefactors such as government, non-governmental, and voluntary community-based associations to design appropriate interventions to address the identified magnitude and associated factors of PPD that the current East Shewa dweller mothers are facing during their seasons following delivery.

Significance for knowledge production: According to the researcher's knowledge, there is no study conducted in the current study area. By considering the limited study with the subject of postpartum depression in the current study area, our research could be one of the first study conducted within East Shewa Zone on PPD. This will help as a baseline for many studies to come. With this research we have conducted both qualitative and quantitative data and explored both statistical and thematical analysis on PPD.

Significance for policy and further research development: In the Ethiopian context, the researcher has communicated with higher officials and observed annual reports

from Oromia Health bureau. According to the report, there is no scientific research on PPD in this specific study area. Hence, studying PPD will bring usable findings that are important for stakeholders in their efforts to overcome such health challenges. This paper may be useful for raising community awareness by disseminating the findings. In addition, the present study will be published in reputable journals and be disseminated to other research groups and the academic community in general. Further, the database generated from the study will be made available to other users for more in-depth analysis. In addition, since this research findings came up with valuable information, it can be valuable for policy advocates and policy makers to design timely and relevant policy for combating PPD.

1.7. Scope of the Study

The current research aimed to study postpartum depression among mothers who gave birth and attended public health facilities of East Shewa Zone, Ethiopia. Within this study magnitude of PPD, factors associated with PPD, social support, and midwives' and mothers' view towards PPD were covered. An institution-based cross-sectional study with a concurrent mixed method design was employed. The study sample for the quantitative study is 500 postpartum mothers who gave birth and attended public health facilities of East Shewa Zone within one year after delivery. The sample size for the qualitative study was 17, i.e., qualitative data were collected from 10 postpartum mothers with diverse sociodemographic characteristics and 7 professional midwives. The data collection period was from August 1-2019 up to August 30-2019.

1.8. Operational definitions

- **Postpartum Depression (PPD):** is a condition that impacts thinking, feeling or mood and may affect one's ability to relate to others and function on a daily basis. PPD is also an affective mood disorder with symptoms of a major decrease or increase in appetite, moderate to severe anxiety, headaches, and chest pains. The onset is generally within four weeks after delivery up to one year.
- **Postpartum period:** is defined as one hour following the delivery of the placenta through the first six weeks of an infant's life and up to one year (WHO, 1998).
- **Social support:** operationalized as a well-intentioned action that is given willingly to postpartum mothers. The support can be either in the form of personal help in doing needed activities, instrumental and financial assistance, or emotional empathy and understanding offered to mothers during the postpartum period. The source of social support may include intimate relationships, friendships, relatives and neighbourhood or community contacts.
- **Emotional support:** referred to postpartum women's access to provision of empathy, caring, love, and trust. Emotional support also included receiving encouragement, approval, and feeling of togetherness with others during the postpartum period.
- **Appraisal support:** drawn from the encouragement and advice given to postpartum period by other mothers who had been in a similar situation.
- **Physical activity:** referred to postpartum women's engagement in daily routines and formal exercises to maintain the balance of their body's weight and increase

strength. Physical activities included any type of activity (e.g., occupational, recreational, child care, indoor and outdoor household activity).

- **Coping:** referred to postpartum women's strategies to respond or cope with stressful life events as a result of the demands of self-care needs, child-care, and parenting roles.
- **Public Health Social Work:** is defined as social work practice that uses an epidemiologic approach to preventing, addressing, and solving social health problems. By emphasizing prevention and health promotion, PHSW is multimethod and transdisciplinary, making it especially relevant to contemporary practice

1.9. Organization of the Dissertation

As this dissertation is for the preparation of Ph.D. dissertation it has the full protocol of dissertation with six chapters including all the preliminary pages. Hence, the paper is organized into six chapters. Chapter One describes the background of the study, including the problem statement, study objectives, rationale for the study, significance of the study, scope of the study, and operational definition of terms.

Chapter Two contains the literature review and it contains both empirical and theoretical evidence on postpartum depression. Therefore, as an empirical evidence we highlighted postpartum depression and its relevance to social work, major symptoms of postpartum depression, causes of postpartum depression, socio demographic factors, social supports, prevalence of postpartum depression, prevalence and contributing factors of PPD in Ethiopia, treatment for postpartum depression, The perception and views of midwives' about postpartum depression. From the theoretical evidence we have precisely highlighted the Psychosocial theory, the biological theory and the behavioral theory.

Chapter Three contains a brief discussion of the research methods. Accordingly, it involves a description of the study area and population, philosophical stance, research approach including the research design, sample size determination and sampling, participant selection criteria, instruments, data collection procedures, data analysis, ethical clearance and issues of confidentiality in protecting the research participant.

Chapter Four presents the result of the study. Within this part of the dissertation, the study; the results are portrayed with five different parts. The first part deals with the socio-demographic characteristics of the study participants of the quantitative part. The second part deals with the prevalence of the PPD. The third part displays the contributing factors associated with PPD, the fourth part deals with the socio-demographic characteristics of the qualitative part and the fifth part deals with the results found from PPD mothers and midwives from the in-depth interviews.

Chapter Five contains the discussion part of the study. This part of the study elaborates our findings by various views and findings from previous studies in different settings and countries. In here, alike and opposing research reports are acknowledged from prior studies and discussed in comparison with the current results.

Chapter Six summarizes the conclusion and study implications. At last, references cited inside the dissertation and appendices (questionnaires, interview guide, Ethical clearance, consent form and other supporting documents) are included.

CHAPTER TWO: LITERATURE REVIEW

Introduction

In this chapter, the researcher conducted review of literatures on various aspects of postpartum depression (PPD). The chapter encompasses discussing about PPD and its relevance to social work, major symptoms of postpartum depression, causes of postpartum depression, socio demographic factors, social support, prevalence of postpartum depression, prevalence and Contributing factors of PPD in Ethiopia, treatment for postpartum depression, coping mechanisms with PPD, midwives' views and perceptions about postpartum depression, theories of postpartum depression and conceptual framework.

2.1. Postpartum Depression and Relevance to Social Work

Postpartum depression (PPD) is a pervasive disease in the big picture of reproductive health (Robertson, Grace, Wallington, & Stewart, 2004). The World Health Organization (WHO, 2005) declared there is no health if the issues of mental health are ignored. The American Psychological Association (APA, 2015) describes postpartum depression as a serious mental health disability characterized by a prolonged period of emotional disturbance, occurring at a time of major life change and increased responsibilities in the care of a newborn infant. In addition, the National Alliance on Mental Illness (NAMI, 2015) defined PPD as a condition that impacts a person's thinking, feeling or mood and may affect her ability to relate to others and function on a daily basis.

The period after delivery is regarded as a high time for the occurrence of serious mood disorders. The association between the postpartum period and mood disturbances has been noted since the time of Hippocrates (Miller, 2002). There are three common forms of postpartum affective illness: the blues (baby blues, maternity blues), postpartum (or postnatal) depression, and puerperal (postpartum or postnatal) psychosis. Each has different

manifestation in its occurrence, onset, duration, and treatment. Postpartum depression (PPD) is a significant public health problem which affects approximately 10-15% of women within a year of childbirth, and as such represents a considerable public health problem affecting women and their families (Stewart, Robertson, Dennis, Grace & Wallington, 2003).

Maternal depression is one type of depression that disturbs mothers before or after the birth of their baby. Postpartum depression is a serious disorder with potentially devastating personal and familial consequences (Greenberg & Witztum, 2008). As Sobey (2002) depicted, PPD affects the healthy functioning of the entire family including the quality of life of mothers with negative consequences for the emotional, behavioral, and cognitive functioning of their infants.

Social workers are involved with mothers in a variety of settings (Gruen, 1990). One of the concerns of Social Work is to address personal and family level difficulties. Hence, dealing with such problems is a priority area of Social Work especially in health and mental healthcare settings. Lessons from several western countries indicate that Social workers are employed in health and mental healthcare settings (Abrams & Curran, 2007). In this setting Social Work is very important, because many of the PPD cases are directly linked with the very concern of Social Work, i.e., individuals, families, and communities. Social Workers have an appreciation and understanding of the postpartum context for mothers and their families (Walther, 1997). This puts them in a position to offer proper interventions for postpartum depression including prevention, education, intervention, and referrals, as needed, to other professionals.

Social workers can also develop community awareness of postpartum depression by educating professionals and community leaders (Gruen, 1990). This can promote the professionalism of social workers, as well as treatment rates. Education is important also in

light of the fact that many women experience relief when they are in therapy with a social worker who is knowledgeable about postpartum depression (Walther, 1997).

Another beneficial contribution social workers make in the community is through social support groups for women with postpartum depression. Social support provides an accepting, supportive environment in which participants can share their experiences and assist each other in coping with their depression (Fairchild, 1995). Social workers should also be aware of the low rates of utilizing services and hence promote the importance of social support in a given community.

On the other hand, there is an emerging branch of Social Work, such as Psychiatric Social Work and Public Health Social Work. Both are timely branches of Social Work that we need to build on such researches. Currently there are many emerging social problems and health problems such as the impacts of globalization, unemployed youth, drug addiction, vulnerable mothers, and disasters are affecting us in complex ways. These have brought the importance of working through integration i.e. Social workers to work with public health professionals. Social work and public health share a social justice mission to improve, defend, and enhance well-being, working together to ameliorate social health problems (American Public Health Association, Social work Section Newsletter, 2006). Therefore, studying postpartum depression could be one of the parts and parcel of public health social work in this context.

2.2. Major symptoms of postpartum depression

Many women experience some affective symptoms during the postpartum period, 4 to 6 weeks following delivery. Women may develop the baby blues, a transient mood disturbance characterized by mood lability, sadness, dysphoria, subjective confusion, and tearfulness (Sadock & Sadock, 2007). These feelings, which may last days, have been

ascribed to rapid changes in women's hormonal levels, the stress of childbirth, and the awareness of the increased responsibility that motherhood brings. For the baby blues no medical treatment is required but only education and support for the new mother during their few days after delivery. If the symptoms persist longer than 2 weeks, evaluation is indicated for postpartum depression (Stewart, et al, 2003).

Postpartum depression is characterized by a depressed mood, excessive anxiety, insomnia, and change in weight. The onset is generally within 12 weeks after delivery. No conclusive evidence indicates that baby blues will lead to a subsequent episode of depression. Several studies do indicate that an episode of postpartum depression increases the risk of lifetime episodes of major depression (Sadock & Sadock, 2007). According to the Diagnostic and Statistical Manual of Mental Disorders Fifth Edition (DSM-5) (APA, 2013), Postpartum depression is a depressive episode with moderate to severe severity that begins four weeks after delivery. Patel et al.(2012) indicated some of the major quantifiable manifestations of postpartum depression include: lack of sleeping or sleeping too much, mood swings, change in appetite, fear of harming, extreme concern and worry about the baby, sadness or excessive crying, feelings of doubt, guilt and helplessness, difficulty concentrating and remembering, loss of interest in hobbies and usual activities, and recurrent thoughts of death, which may include suicidal ideation. Table 1 is adapted from Sadock and Sadock (2007) to throw light on postpartum depression and baby blues.

Table 1.Characteristics of Postpartum Depression and Baby blues

Characteristic	Baby blues	Postpartum depression
Incidence	30% to 75% of women who give birth	10% to 15% of women who give birth
Time of onset	3 to 5 days after delivery	Within 3 to 6 months after delivery
Duration	Days to weeks	Months to years, if untreated
Associated stressors	No	Yes, especially lack of support
Sociocultural influence	No; present in all cultures and socioeconomic classes	Strong association
History of mood disorder	No association	Strong association
Family history of mood disorder	No association	Some association
Tearfulness	Yes	Yes
Mood lability	Yes	Often present, but sometimes mood is uniformly depressed
Anhedonia	No	Often
Sleep disturbance	Sometimes	Nearly always
Suicidal thoughts	No	Sometimes
Thoughts of harming the baby	Rarely	Often
Feelings of guilt, inadequacy	Absent or mild	Often present and excessive

(Adopted from Sadock & Sadock 2007, p. 865)

2.3. Causes of Postpartum Depression

Studies have described contributing factors to PPD but the exact causes seem unclear and no specific cause of PPD has come forward (Soares & Zitek, 2008). But, a number of contributing factors have been proposed as contributing to the severity of the depression that

is experienced by the recently delivered mother, including the mother's health, the health of the infant, and the number of additional stressful life events that occur during pregnancy and the postpartum period (Cutrona, Beth & Troutman, 1986). In a cross-sectional study conducted in Ethiopia, unplanned pregnancy, experiencing the death of an infant, and unstable marital conditions were found to have a significant association with postpartum depression (Kerie, Menberu, & Niguse, 2018).

2.4. Socio demographic factors

Various studies have reported factors associated with PPD including demographic and some socioeconomic factors such as maternal age, parity, maternal educational attainment, place of residence as well as husband's educational attainment (Fiala, et al. 2017, Giri, et al. , 2015; Muneer, et al. , 2009 & Patel, Rodrigues & DeSouza, 2002). A cross-sectional study conducted on the prevalence and associated factors of postpartum depression in Southwest, Ethiopia revealed that PPD is associated with socio- demographic factors such as age, marital status, economic status, and educational level of both the postpartum mothers and their spouses (Kerie, et al, 2018). Factors associated with anxiety during pregnancy, stressful recent life events, poor social support, previous history of depression, early life abuse, abuse by an intimate partner, maternal low educational attainment, low socioeconomic status at the time of pregnancy, and a history of mental illness have also been associated with postpartum depression (Gelaye, Rondon, Araya Ricardo, & Williams, 2016).

2.5. Social Supports

Most popularly, the accepted notion that a new baby brings happiness is observed in many cultures. But, there can also be highly stressful times soon after birth (Miller & Sollie, 1980). One resource that has been shown effective in helping women cope with a range of stressors following childbirth is social support (O'Hara, Neunaber & Zekoski, 1984).

Studies have documented associations between psychological distress and weak social

support. It is unclear, however, whether good social support can improve psychological distress. Studies pointed that social support has an important impact on mental health. Lack of social relationships, social isolation and social support, has been implicated as a risk factor for depression. There are two alternative causal models which are common in explaining how social support affects psychological distress, the direct effect model and the indirect (buffer) effect model (Cohen & Wills, 1985). The direct effect implies that social relationships have a beneficial effect on health, regardless of life situation, whereas the stress-buffering effect implies that social relationships only have a beneficial effect for persons exposed to stressors, such as negative life events and hardships over time. In this instance, social support is thought to buffer the effects of stress by enhancing personal coping abilities such as self-esteem and self-efficacy (Dalgard, 2009). Through a strengthening of the coping mechanism, the negative emotional reaction to a stressful event will either be reduced, or the physiological responses on health via the immune system were dampened (Dalgard, Bjork & Tambs, 1995; Kawachi & Berkman, 2001).

In one of the studies mothers who had high levels of social support were able to establish more secure attachments with their infants than were women with low levels of social support (Crockenberg, 1981), suggesting that social support may be an important resource for parents of new infants. Although good relationships with others, especially the spouse, have been associated with adjustment and adaptive parenting in the postpartum period, little is known about the mechanisms through which social support helps women cope with the stress of childbearing. A lack of insight into the mechanisms of social support characterizes the entire literature on stress and social support (Cohen & McKay, 1984; Gore, 1981; LaRocco, & Wortman, 1984).

A systematic review by Biaggi, Conroy, Pawlby, and Pariante (2015) suggested that the lack of a partner or social support was associated with higher rates of antenatal depressive

and anxiety symptoms while Yim et al. (2015) found that low social support and poor quality relationships with close others was a predictor for postpartum depression. Fisher et al. (2012) conducted a systematic review into the determinants of depression in low income countries. They found that difficulties in the relationship between the woman and her partner were associated with depression (Fisher et al., 2012). These difficulties were varied and could include a partner who was unsupportive, uninvolved, overcritical, or inflicting physical abuse (Fisher et al., 2012). Adinew and Adamu (2018) conducted a study in Addis-Ababa and found that 23% of study-participants who were the victims of domestic violence had symptoms of postpartum depression. Domestic violence was positively and significantly associated with symptoms of postpartum depression.

In contrast, a cross-sectional study conducted in Mombasa, Kenya with 429 mothers on social support and social stress, no association was found between depression and level of social support (Husain et. al, 2016). Observing such a dichotomy, the researcher would like to explain the Ethiopian current situation with the case of East Shewa zone.

2.6. Prevalence of postpartum depression

Postpartum depression has become a relatively common part of a new mother's life. Becoming a mother is associated with emotional distress in about 30% of women (Bener, Gerber & Sheikh, 2012). Mental and neurological conditions like postpartum depression contribute to more than 12.3% disability adjusted life years (Lester, Turnley, Bloodgood, & Bolino, 2002).

The prevalence of PPD is estimated to be between 10% and 20%, with an average prevalence of 13% (O'Hara & Swain, 1996). This figure depends on the geographic location and the socio-economic conditions. In western countries such as United States the prevalence of PPD ranges from 7 to 20%, but most studies suggest rates between 10 to 15%. Lifetime

risk is 10 to 25%, risk at two months postpartum is 5.7%, and at six months postpartum it is 5.6% (Patel, et al. 2012). In sub-Saharan Africa, studies have reported a prevalence of 14.6% in Nigeria, 34.7% in South Africa, and up to 50.8% in the Democratic Republic of Congo, 6.6% in Uganda, (Adewuya, Fatoye, Ola, Ijaodola. &Ibigbami, 2005; Cooper et al. 1999 & Imbula, Okitundu, & Mampunza, 2012, Nakku, Nakasi & Mirembe, 2006). In Pakistan PPD ranges from 28%-57% (Kazi, Fatmi, &Kedir, 2006), and 35-50% in Latin America (Wolf, Deandraca, &Lozoff, 2002).

Little is known about the prevalence rate of postpartum depression in Ethiopia (Kerie, et al., 2017). A cross-sectional study conducted in Addis Ababa, Addis Ketema Sub City, revealed that the prevalence of PPD was 19%. In rural Ethiopia Butajira the prevalence of PPD was 17% (Hanlon, Araya, Tesfaye, &Wondimagegn, 2008).

According to the researcher's knowledge, there is no national level study in Ethiopia which can inform us of the exact prevalence of postpartum depression. The Researcher also observed the existing prevalence of PPD varies from one place to another within Ethiopia. The need to know the prevalence of East Shewa comes to light here as fragmented studies cannot inform us about the figure in the current study area. On the other hand, reliable estimates of postpartum depression in these contexts are required for the development of national and international health policies. Hence, one of the purposes of this study is to determine the prevalence of postpartum depression to fill the gap.

2.7. Prevalence and contributing factors of PPD in Ethiopia

This part of the paper reviews PPD studies conducted in Ethiopia. The review precisely highlights the findings of prevalence/magnitude and factors of PPD from studies conducted in various parts of Ethiopia.

PPD in South West Ethiopia was found to be high with a prevalence of 33%, (Kerrie & et. a, 2018). Hanlon and colleagues (2017) reported that 28.7% of women had Postpartum depression symptoms in rural Ethiopia around Butajira. In Bale Oromia Region, South East Ethiopia, findings revealed a prevalence of 31.5% for PPD (Tefera et al. 2015). A study conducted in Ethiopian capital city Addis Ababa revealed that nearly a quarter (23.3%) of women had symptoms of postpartum depression (Addishiwet & Yohannes, 2018). Likewise, another study in Addis Ababa found a similar result with a significant amount of PPD (23.3%) among the study participants (Fantahun, Cherie & Deribe, 2016). Hanlon, et. al (2018) found a prevalence of 12.2 % of new mothers with PPD symptoms in Soddo district in South Ethiopia. A cross-sectional study conducted in Amhara region, northern Ethiopia came up with a result of 32.8% of mothers having PPD symptoms (Joy, Angela, Yared & Dereje, 2014). In Bench Maji, South Ethiopia the magnitude of PPD among the study population was 22.4% (Tigistu, Fantaye & Anand, 2018).

Associated factors: Age of the participants, unplanned pregnancy, chronic illness, death of infant and current marital problems were predictors of postpartum depression in Southern Ethiopia (Kerrie et. a, 2018). Family history of mental illness, lack of social support, history of child death, and husband smoking status were found as independent predictors of perinatal depression at Bale Zone, Oromia region South East Ethiopia (Tefera et al. 2015). Domestic violence was a significant factor for PPD in Addis Ababa (Addishiwet & Yohannes, 2018). Grand multiparity, perinatal complications, a past history of abortion, experiencing hunger in the preceding 1-month, lower perceived wealth, poor marital relationship and social support were found to be associated with PPD (Hanlon et. al 2018). Tigistu, Fantaye and Anand (2018) reported that unplanned pregnancy, child having sleep problems, domestic violence, unsatisfactory marital relations, poor social support, and history of previous depression were highly associated with PPD.

Generally, there seems to be little attention to PPD particularly on early detection (Kerrie & et. a, 2018). There is significant gap on maternal mental health service and treatment (Hanlon & et. al, 2016). Further research on PPD is necessary to further confirm these findings (Hanlon & et. al, 2017). There is a need to create public awareness about PPD especially regarding its causes and consequences (Hanlon & et. al, 2016). Organizing training on mental health for new mothers is important (Tefera et al., 2015).

There is a lack of evidence regarding the prevalence of PPD and treatment of women with maternal mental disorders including very limited evidence on effective psychosocial interventions (Baron, Hanlon, Sumaya, Simone, Breuer, et al, 2016). In addition, according to the researcher's observation, there is a lack of research on PPD which can represent the overall status of PPD in Ethiopia. Clear attention is not given to PPD in Ethiopia.

2.8. Effects of postpartum depression

Mothers spend the most time with their child during the postpartum period. She is the one who mediates between social environments and their experience of the external world. Children of PPD mothers showed less affective sharing and significantly less sociability with strangers as well as chronic social difficulties in the areas of marriage, finances, or housing (Stewart, et al, 2003).

Postnatal depression (PPD) is also an important health problem which influences well-being, quality, and security of life. Depression occurring in the postnatal period may cause more serious problems than major depression occurring in normal life periods and displays similar symptoms. PPD has an adverse influence on self-esteem, skills, child care, familial responsibilities, and roles of the mother. In this period, mothers may harm themselves and their babies, influencing the relation of the mother and the baby unfavorably (Stewart e. al, 2003).

2.9. Treatment for postpartum depression

Several public health studies and scholarly publications support the opinion that postpartum depression is treatable using a variety of interventions. Where the causes of PPD can be identified, treatment should be aimed at alleviating the root cause of the problem (Patel, et al. 2012). Basic treatment can be either non-pharmacological or pharmacological. There have been concerns about mothers with postpartum depression taking antidepressants because of infant exposure to medication through breast milk or potential side effects (Dennis, & Chung-Lee, 2006). Psychotherapy is considered the mainstream therapy and many postnatal mothers prefer psychological treatment (Pearlstein, Zlotnick, Battle, et al, 2006). The two most commonly used psychotherapies that have been found to be beneficial are interpersonal therapy (IPT) and cognitive behavioral therapy (CBT). For mild to moderate postpartum depression individual or group psychotherapy is an effective treatment. Psychotherapy also can be used as adjunct therapy with medication in moderate to severe postpartum depression (Nonacs & Cohen, 1998).

Both psychosocial and psychological interventions are effective in decreasing depression and are viable treatment options for postpartum depression (Dennis & Hodnett, 2007). A study conducted with 120 women who recently gave birth showed that interpersonal psychotherapy was effective for the relief of depressive symptoms and for improvement in psychosocial function in treated women compared with control groups who were on the waiting list for such therapy (Warner, Whitton, et al, 1997). Many physicians in the study also encouraged the women to exercise, engage in acupuncture and massages, obtain adequate exposure to morning light, and seek support from others as an adjunct to treatment for postpartum depression.

Second-line therapy is pharmacotherapy. A selective serotonin reuptake inhibitor should be tried initially as a first agent because it is associated with low risk of toxic effect in patients taking an overdose, as well as with ease of administration (Turner, Sharp, Folkes, et al, 2008). If the patient has previous positive responses to a specific drug, that agent should be strongly considered as a first choice unless there is evidence of potential harm (Payne, 2007).

2.10. Coping mechanisms with PPD

After child birth, a mother deals with her baby in her own circumstances. Perhaps the baby may lead the mother to encounter mental and physiological changes with new roles and tasks. Any encounters that happen as a consequence from having new baby needs a coping mechanism for adjusting with emotional & behavioral changes (Razurel, Bruchon-Schweitzer, Dupanloup, Irion, & Epiney, 2011).

Variety of coping mechanisms are employed to combat postpartum depression. Some advised doing physical activity. Others share their experience of prayer, listening songs and

some others used Yoga. Physical activity is important because childbearing years are provisional periods that put women at higher risk for over weightness. Empirical evidence has established the importance of regular exercise during the postpartum period that have implication in reducing depression (Evenson, Aytur, & Borodulin, 2009).

Furthermore, mothers during the postpartum period required to build sense of balance between her daily task and taking adequate rest. Such actions will help in order to have an enhanced functioning as a mother and eventually advance the satisfaction of the postpartum period (Rychnovsky & Hunter, 2009). Conducting physical exercise next to delivery will help to have normal postpartum weight (Yeh, St John, & Venturato, et al., 2014), and also it will reduce the occurrence of postpartum depression. Hence, we need to appreciate coping mechanism for postpartum mothers that includes physical exercise. As doing activities that makes mothers more relaxed will be necessary. As a result, mothers can easily cope and balance their postpartum period by maximizing adaptability to the changes (Ha and Kim, 2013)

2.11. Midwives' views and perceptions about postpartum depression

According to Jones, Creedy and Gamble (2011), emotional care provided by midwives may improve mothers' health and well-being; reduce stress, trauma, and depressive symptoms; and enhance maternal outcomes in childbearing women. The provision of antepartum and postpartum emotional care can be challenging and requires a good knowledge base for the provider to screen and assist distressed women. This study examined East Shewa Zone midwives' veiws and perceptions regarding postpartum depression.

PPD, since it jeopardizes life quality and safety, has been considered as anegative effect influencing mother, baby and family members (Hanna, Jarman, Savage & Layton,

2004). Therefore, nurses and midwives are expected to conduct regular medical screening for women in the postpartum period to detect depressive symptoms (Goodman, 2004).

Midwives are health care professionals who interact most with women during pregnancy and postpartum periods (Longsdon, Wisner, Billings&Shanahan,2006). Also, nurses who have frequent contact with women during the perinatal period are well-positioned to provide screening and treatment for PPD (Segre, O’Hara, Arndt& Beck, 2010). As they meet with mothers for immunization, postpartum health controls and healthy baby checks they may have a chance for PPD screening. During these interactions nurses/midwives can detect risky women and patients with symptoms of PPD.

They may conduct medical screening by making use of appropriate tools and can guide the woman to professional assistance if needed (Longsdon, Wisner& Pinto-Foltz , 2006). According to Keng Malasian (2005), the biggest handicap of nurses/midwives is the lack of sufficient training concerning diagnosing, consulting, and guiding risky patients in the early diagnosis and management of PPD. If postpartum depression knowledge of nurses and midwives is insufficient, that may mislead them in identifying symptoms and PPD (Keng Malasian, 2005). To that end, the present research examined the PPD knowledge and opinions of midwives employed in health care facilities of East Shewa Zone, Ethiopia.

2.12 Theories on postpartum depression

According to the Researcher knowledge there is no common agreement on the theories regarding the nature of PPD. Below are a review on theoretical perspectives about PPD. In this regard, neither the concept of one size fits all nor a single theory will help to elucidate postpartum depression by being the only exponent. Hence, a mixture of theories should be considered in our perspective with regard to mental health in general and postpartum depression in particular.

Psychosocial Theories

The field of social work was traditionally concerned with helping the needy to help themselves. This form of help no doubt resembled the informal help provided by the society. However, the activities of Social Work practice are professionalized, evidence-based, and delivered systematically. The knowledge of social work service involves the theoretical and practical models for understanding of the dynamics of people and their environment.

There are approaches and models which were developed within the framework of each one of the broader methods in Social work. These models reflect accumulated wisdom and basic tenets of practice (Lyndsay, 2009). Social work practitioners who work with various clienteles in various settings; often refer approaches out of which the prominent one is psychosocial approaches. “The term psychosocial has been used to refer to a number of theories, which combine concern with psychological development and interaction between the individual and the social environment” (Lindsay, 2009, p 10).

This psychosocial approach is historically connected with Mary Richmond (1917). The approach was also known as the ‘Diagnostic or Organismic or differential model’. The term psychosocial was mostly preferred as it explains the nature and the purpose of the model. The psychosocial approach is essentially a system theory in social work practice. This model addresses to person -in –situation Gestalt or Configuration which state that the person and their situation (environments) are inter-systemic, interdependent or interrelated. Thus, the change in one part of this situation – person configuration, brings changes in other parts, which in turn leads to another change. Hence, the model stresses that the person must be seen in the context of their interactional transactions with the external world, which includes family, social groups, work place, or any other system of which the person is a part. The knowledge about this social environment is considered essential in understanding human

problems. Thus, the approach presumes that the current normal behaviors of the individual are influenced by certain attitudes, reflexes and perceptions of the past (Lindsay, 2009).

Since the psychosocial theory in social work originated from psychodynamic theory, it seems important to reflect on psychodynamic theory. Psychodynamic theory is primarily concerned with the inner person – their thought and feelings- and considers external factors only from the client’s view. In this regard, the psychodynamic perspective declares the idea that unfinished business in women’s childhood or family may cause more psychological difficulties after birth (Abdollahi, Lye & Zarghami, 2016). Many women have an inclination to copy their own mother’s role as soon as they become a mother after birth. Nevertheless, if there is a denial in accepting the roles of their own mother, they might develop difficulties in coping or adapting to their new role of motherhood (Kaplan & Sadock, 2010). In this case, psychodynamic theory suggests characteristics of personality predispose new mothers to PPD (Abdollahi, Lye & Zarghami, 2016).

The psychosocial approach borrows from both psychodynamic theory and ego psychology but adds social, economic and practical considerations. Within social work a purely psychodynamic approach is rare, however it forms the basis of psychosocial work and is the starting place for a number of other interventions (Lindsay, 2009).

In this approach interpersonal struggles in an individual’s life have significant influences on mental health (Egele, 2008). Most individuals require affection which needs to be fulfilled in the initial stage of a relationship. Uncertainties concerning a relationship may result to disappointment and bring about depression and anxiety (Grupe & Nitschke, 2013). A number of interpersonal factors play a role in women’s distress, and sensitivity makes them prone to develop postpartum disorders. These include insufficient social support and marital conflicts (Hammen & Brennan, 2002).

Psychosocial theorists propose the occurrence of stressful life events, such as the birth of an infant, marital problems, lack of social support associated with the social and family environment, loss of a loved one, marital or relationship difficulties, or serious financial or housing difficulties may precipitate the onset of depression (Abdollahi, Lye & Zarghami, 2016). Some women who suffer from major PPD and with symptoms such as psychomotor retardation, weight loss, loss of interest in activities, lack of concentration, and constant suicidal thoughts may not seek social support. Moreover, actions that women take to reduce these psychological problems may predispose her to PPD (Hegen, 1999).

Although the birth of a child is a stressful event requiring a great deal of adaptation and readjustment, many new mothers do not become depressed (Egeline, 2008). A recent undesirable life event was the factor most strongly associated with the onset of this disorder. The probability of becoming depressed after childbirth is about three times greater if a significant stressful event had recently occurred, than if no such event had occurred (Halbreich, 2005).

A growing number of studies support a psychosocial explanation of postpartum depression. The above literature has demonstrated a relationship between a number of psychosocial variables with postpartum depression. From a psychosocial perspective, postpartum depression, unlike the "blues" and postpartum psychosis, is thought to result from an interaction of psychological and social/environmental factors (Bina, 2008).

However, the causal nature of the psychosocial factors is not fully understood. Research regarding the role of psychosocial factors in the etiology of postpartum depression has produced contradictory results. Therefore, more studies on the psychosocial determinants of postpartum depression are needed. As there is no single factor that is responsible for

precipitating postpartum depression, there may be a more complex causal pattern involved in the factors associated with PPD.

Biological Theories

Biological theory pronounces with the mother's experience of illness and the medical condition during the postpartum period. This could be because of hormonal change but nothing to do with social or environmental circumstances (Beck, 2002). According to Soares & Zitek (2008), hormones such as human chorionic gonadotrophin, progesterone and cortisol increase and intensifies during pregnancy and significantly drop after birth, this biological and natural encounter is considered as a contributing factor for postpartum depression. Rapkin, Mikacich & Moatakef-Imani (2003) discussed that mothers are under huge impact of biological factors during postpartum period that affects her mood. The biological theory proposes the change that undergoes during birth experience will lead women to the postpartum depression. It also suggests that it is biology not about social issues as it's linked with hormonal changes. By means of natural happening not social is the primary argument of the biological theory.

Behavioral theory

Behavioral theories advocate emotional distress incident might happen from major life events which disturb a mother's normal life style. Challenges of life, for instance, family separation and levels of emotional support are forecasters for the emotional distress occurrence during postpartum period (Hammen & Brennan, 2002). On the other hand, the experience of reinforcement positive/negative/ is considered as a factor for PPD (Davidson, Rieckmann & Lespérance, 2004). From the Behavioral theories we can understand that emotional distress or comfort can appear either by appraisal or forfeit for challenging

behavior. In this case, such measures are contributing factors for emotional distress during the postpartum periods. (Davidson, Rieckmann & Lespérance, 2004).

Moreover, postpartum depression perceive childbirth as a major stressor that disrupts the parent's usual living patterns, thereby forcing them to implement new behavior patterns. These disruptions during the postpartum period increase the woman's vulnerability to emotional disturbance (Abdollahi, Lye & Zarghami, 2016).

Evolutionary theory

In congruent with the psychosocial and behavioral theory; there are articles and findings that strive to explain postpartum depression with Evolutionary theory. Here the suggestion of the ideas of evolutionary theorists are the process of adaptive roles of mothers have an implication for PPD. Many Researcher reported that, during postpartum period; quite a lot of mothers habitually faces undesirable consequence their birth experiences. The effects include emotional distress and gloomy due to problems related to her baby, partner, lack of support that is directly implies with family and social environment. So, the evolutionary theory in this regard suggests that, not being able to adapt with the new process of being mom, newness and unable to quickly adjust to such change leads to emotional distress (Hagen, 1999).

On the other hand, by contrasting the other view evolutionary theory says it's not a problem to have PPD it's a normal process of being mom. The evolutionary perspective assertively states that, postpartum depression might be the outcome of an adaptive function that indicates a likely appropriateness charge to the mother. Thus, PPD is not a disability but rather an adaptive process. Postpartum depression signifies a given mother who has suffered to provide care to her baby. Hence, PPD is a common occurrence that happen in many mothers in the globe (Nebraska, 2005)

2.13. Conceptual framework

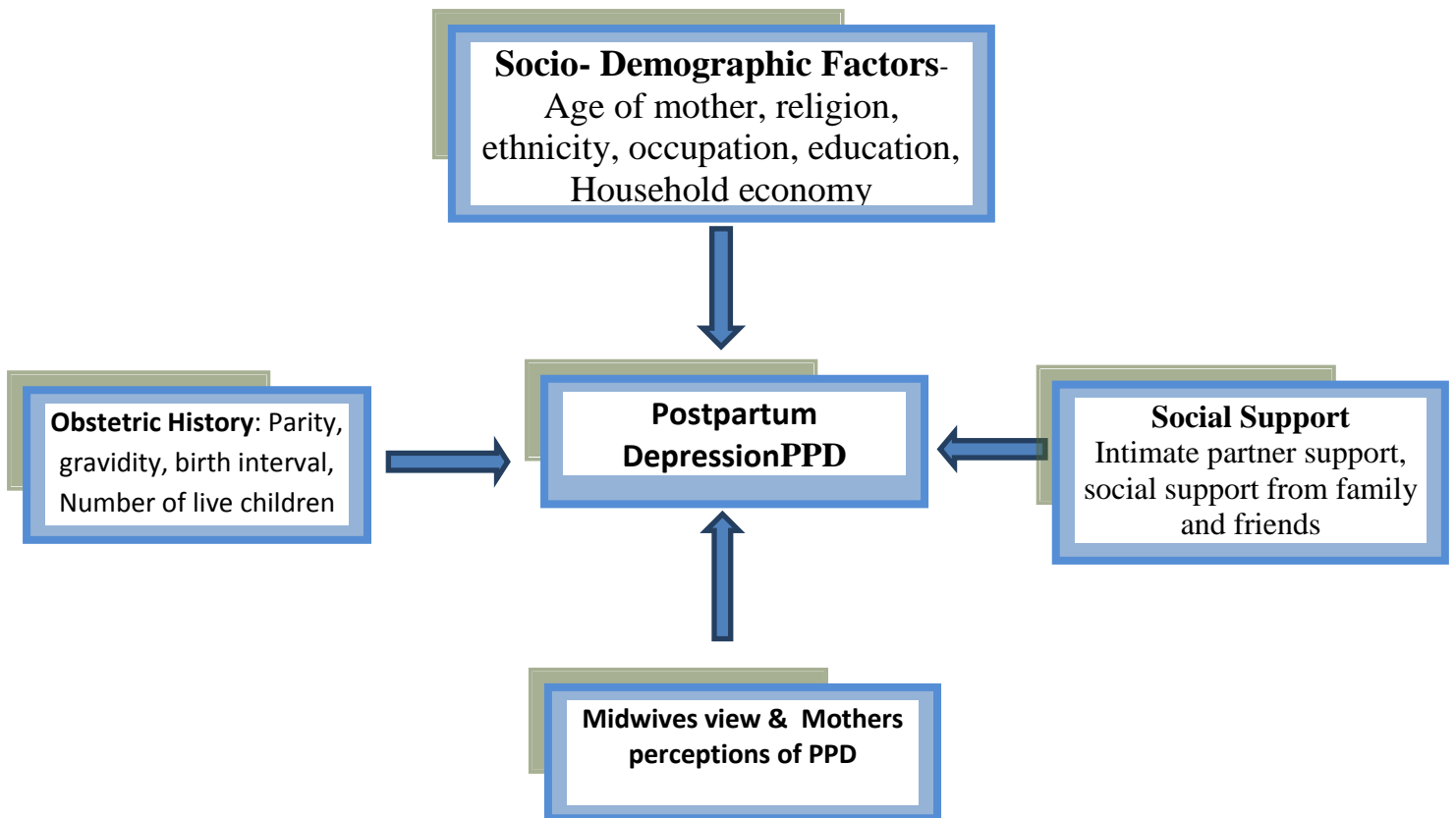


Figure 1 Conceptual framework developed by this author based on key areas of research findings in the literature.

CHAPTER THREE: RESEARCH METHODOLOGY

This chapter details the methodological approach employed in the study. The researcher described the study site and setting, research design, sample size determination, sampling technique, participant selection criteria, instrumentation, data collection procedures, and data analysis process. In addition, ethical considerations and issues of keeping confidentiality are described.

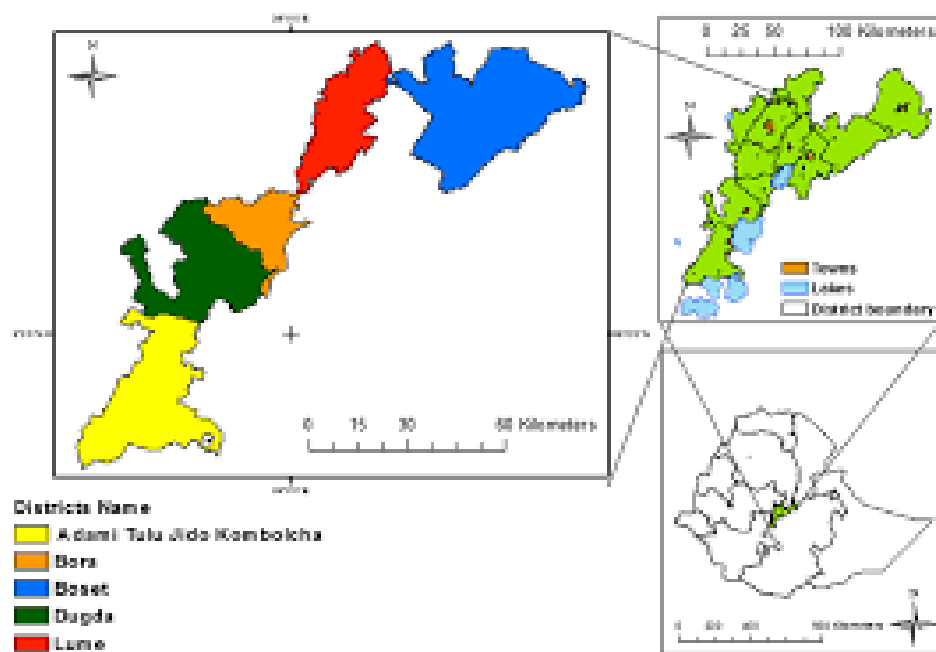
3.1. Description of Study Area and Study period

This study was conducted in East Shewa (In Afaan Oromo: Shawaa Bahaa) one of the Zones of the Ethiopian Region of Oromia. This zone takes its name from the kingdom or former province of Shewa. East Shewa is located in the middle of Oromia, connecting the western regions to the East ones (See Figure 2). This zone is bordered on the south by the West Arsi Zone, on the south west by the Southern Nations, Nationalities and Peoples Region, on the west by South West Shewa and Oromia Special Zone surrounding Addis Ababa, on the northwest by North Shewa, on the north by the Amhara Region, on the northeast by the Afar Region, and on the southeast by Arsi. Its westernmost reach is defined by the course of the Bilate River. Towns and cities in East Shewa include Adama, Bishoftu (Debre Zeit), Meta hara, Modjo, Bote, Meki and Batu (Ziway). In East Shewa zone there are 7 hospitals.

Demographics

Based on the 2007 census conducted by the Central Statistical Agency of Ethiopia (CSA, 2007), this zone has a total population of 1,356,342, of whom 696,350 are men and 659,992 women. With an area of 8,370.90 square kilometers, East Shewa has a population density of 162.03. While 340,225 or 25.08% are urban inhabitants, a further 664 or 0.05% are pastoralists. A total of 309,726 households were counted in this zone, which results in an

average of 4.38 persons to a household and 296,342 housing units. The three largest ethnic groups reported were the Oromo (74.06%), the Amhara (15.39%) and Gurage (3.82%); all other ethnic groups made up 6.73% of the population. Afaan Oromo is spoken as a first language by 69.15%, Amharic was spoken by 24.29%, and Guragigna by 2.64% of the population. The remaining 3.92% spoke all other primary languages reported. The majority of the inhabitants professed Ethiopian Orthodox Christianity, with 69.33% of the population having reported they practiced that belief, while 16.18% of the population were Muslim, 8.4% of the population professed Protestantism, and 5.08% practiced traditional beliefs.



Source: Map of study area (East Shewa) adapted from the annual report of the zonal office.

Figure 2: Map of the study area

3.2. Research Paradigm

As my guiding research philosophy, I prefer pragmatism. Pragmatism is a philosophy with an eclectic world view. It is not committed to any one of the philosophies on reality and knowledge and considers truth as one that works best to meet immediate needs. As a result, pragmatism gives freedom to individual researcher to choose methods, techniques, and procedures (Creswell, 2009) and initiates Researcher to emphasize the research problem. That is, it is based on the intended consequences that pragmatists look to what and how to research. The benefit of this philosophy is the flexibility on design and method and the opportunity it gives to alleviate the weaknesses of one design, strategy, or method by the strengths of the other (Roux & Barry, 2009). Since it is a problem-centered and methodologically pluralistic, I align myself with the assumptions of the pragmatism paradigm.

3.3. Research Approach

The current study was situated within a tradition of mixed methods research (MMR). The discussion below aims to explain and justify the methodological and research design choices made in this study.

By sharing a view that; careful combining of different data types and analysis techniques can reveal contrasting dimensions of given social phenomena, thereby increasing depth of understanding in such studies. This approach aims to obtain a deeper understanding of the study problem. Creswell (2013) portrayed that a mixed- methods research approach combines elements of both qualitative and quantitative methods during data collection, analysis, and inference techniques. The researcher prefers mixed-method research (MMR) approach because MMR provides a more elaborate understanding of the study problem by offsetting methodological biases by taking advantage of the two methods.

Researchers are expected to respond to the research context innovatively and use whatever data types and analysis techniques that are necessary to answer their research questions. The result has been a surge in demand from Researcher to be equipped with appropriate skills to conduct any type of research. What is newer, however, is the explicit and intentional combining of different data types and analysis techniques together as a distinct methodological approach that can complement mono-method approaches to research (Creswell & Plano Clark, 2007).

The greatest advantage of mixed methods research is its potential to overcome at least some of the problems associated with conventional research methods (Creswell & Plano Clark, 2007). These include quantitative methods dehumanizing the subject matter, or qualitative ones failing to move from the specific to the general. By rejecting the incompatibility of different data types and analysis techniques, Researchers are able to exploit the entire available toolkit, rather than be restricted by (questionable) ontological or epistemological boundaries (Creswell, 2003; Johnson & Onwuegbuzie, 2004; Tashakkori& Teddlie, 1998). In the discussion that follows, the MMR designs and methods are elaborated, along with the key elements of the research process.

3.4. Research design

“Research design refers to the way in which a research idea is transformed into a research project or plan that can be carried out in practice by a researcher or research team” (Given, 2008, p. 761). Creswell (2009) identified three types of research designs: qualitative, quantitative, and mixed methods and put them in a continuum with mixed methods in the middle. There are two types of designs under the mixed method approach. These strategies are sequential and concurrent mixed method designs (Creswell, 2014). The current study used the concurrent mixed study design.

“The purpose of a convergent (or parallel or concurrent) mixed methods design is to simultaneously collect both quantitative and qualitative data, merge the data, and use the results to understand a research problem” (Creswell, 2012, p.540). That means both the quantitative and qualitative data were gathered at the same time and then merging or converging the two data sets by bringing them together.

Within this study, objectives which were not covered by the quantitative approach, were addressed using a qualitative approach. Hence, the quantitative approach was used to collect data regarding the prevalence of postpartum depression and factors associated with postpartum depression. Qualitative data were collected to describe mothers’ experience of emotional distress in their first postnatal year and to explain midwives’ perceptions of PPD.

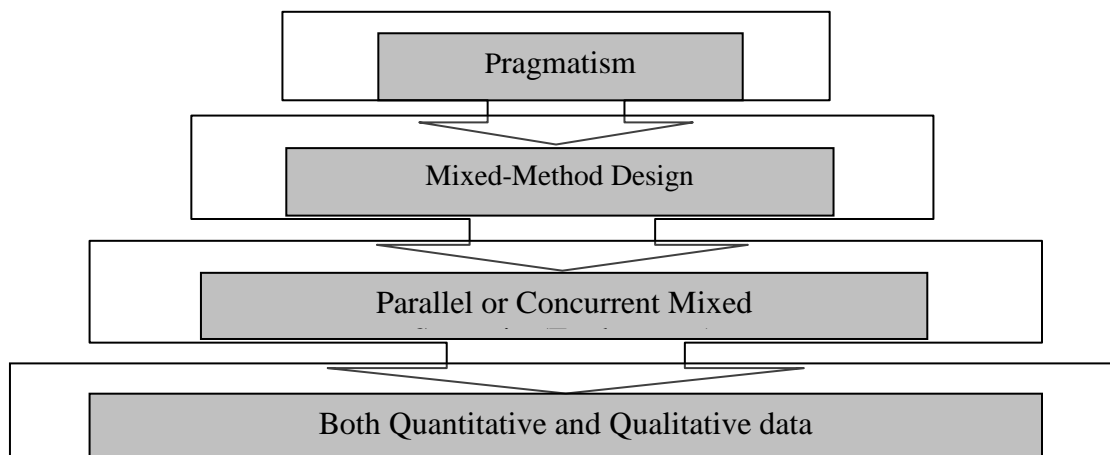


Figure 3. Pragmatism with its corresponding research designs, strategies, and methods

3.5. Quantitative Study

The quantitative phase was designed to determine the current prevalence of postpartum depression and to identify the risk factors associated with postpartum depression in East Shewa Zone Ethiopia.

3.5.1. The source population

All mothers who gave birth within one year in a health facility of East Shewa Zone during the study period.

3.5.2. Study Population

Randomly selected mothers who gave birth within the last one year at the health facilities of East Shewa Zone during the time of the study.

3.5.3. Inclusion and Exclusion Criteria

All mothers who came for postnatal care and vaccination service within one year after delivery in selected health facilities during data collection period and consented to participate in the study were included. Women who were seriously ill, unable to respond to the questions, and those who refused to participate in the study were excluded.

3.5.4. Sampling

Sample size determination and sampling procedure

The sample frame for the study were all postpartum mothers who gave birth within the last one year attending public health facilities in East Shewa Zone. For the first study objective, we used single population proportion formula. Based on studies conducted in Ethiopia; the proportion of 33.82% expected prevalence of PPD among mothers were considered to calculate the sample size for prevalence studies (Kerie, et al, 2018). With the marginal error of 5% ($d=0.05$) and standard score corresponding to 95% confidence

($Z_{\alpha/2}=1.96$) and we also added a 5% for non-response rate. Accordingly, the total desirable sample size was determined to be 362.

$$n = \frac{(Z_{1-\alpha/2})^2 * p(1-p)}{d^2}$$

$$n = \frac{(1.96)^2 * 0.3382(1-0.3382)}{(0.05)^2} = 344$$

$$344 + 17.15 = 362$$

Where,

n = the minimal sample required

d = the marginal error tolerated/degree of confidence = 5% = 0.05

p = population proportion= 33.82% = 0.3382

$Z_{1-\alpha/2}$ = the standard normal variable at 95% confidence level= 1.96

For the **second study objective**, the sample size was calculated using stat Calc of EpiInfo7 (Kerie, et al, 2018).

Table 2: Parameters used to determine the sample size for the second study objective.

Variables	CI (%)	Power (%)	Ratio (unexposed: exposed)	% outcome in unexposed grp	Odds ratio	Sample size
Unplanned pregnancy	95	80	1	33	2	298
Experiencing death of infant	95	80	1	13	2	500
Unstable marital condition	95	80	1	25	2	330

Generally, the final sample size for this study were taking the maximum number i.e. 500 and we further added 10% non-response rate which are a total of 550. We used a simple random sampling (SRS) technique to reach the sampling units that was available at the public health facilities based on their pre-determined patient flow rate in all designated hospitals. In East Shewa zone, there are 7 hospitals available, 4 of which were included in this study; namely,

Adama Hospital, Bishoftu Hospital, Modjo Hospital and Batu Hospital. To allocate the study subjects; first, the average numbers of clients who visited the MCH department was estimated daily by referencing delivery registration books for two weeks prior to data collection. Then, proportional allocation was made for each hospital based on the possible number of patients expected during the study period. SRS was used to identify study participants by using a lottery method. The below diagram displays the proportional allocation made for each hospital.

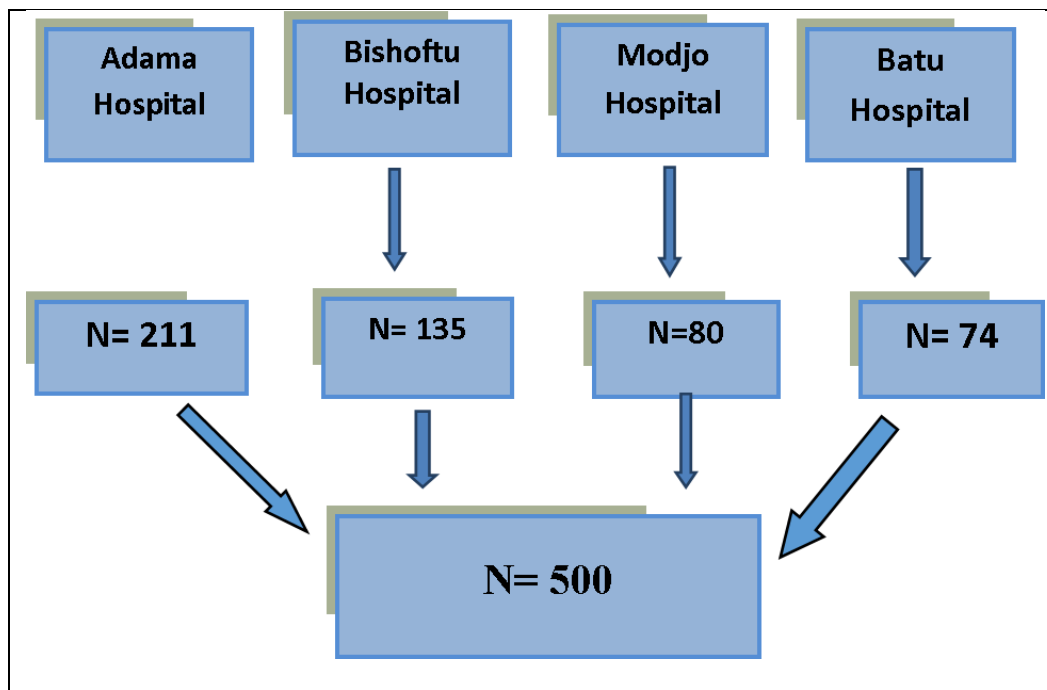


Fig. 4 Sampling technique for prevalence and associated factors of post-partum depression among Adama hospital, Bishoftu hospital, Modjo hospital and Batu hospital, Oromia Ethiopia, 2019

3.6. Study Period

The study was conducted from August 1-2019 up to August 30-2019 among 500 study participant mothers. For the qualitative part we had 17 participants, of which 10 of them are PPD mothers and seven of them were midwives in the selected hospitals in the East Shewa Zone, Ethiopia.

3.7. Instrument

PHQ-9

The magnitude of PPD was measured using the PHQ-9 (Patient Health Questionnaire). PHQ-9 is locally validated both in Afaan Oromo and Amharic version (Kroenke, Spitzer & Williams, 2001). In this research PHQ-9 was selected for its internal consistency (Cronbach's alpha=0.81) and outstanding intra-class correlation of 0.92 in a study of 926 outpatients in a major referral hospital in Addis Ababa, Ethiopia (Gelaye, Williams, Lemma, Deyessa, Bahretibeb, Shibire, & et al. 2013). PHQ-9 also has a better sensitivity (83.3) and specificity (74.7) when compared with the other instruments.

In a study conducted in Ghana the optimal cut-off to designate possible depression was 5 and/or above (Weobong, Asbroek, Soremekun, Manu, Owusu-Agyei, Prince, & et al., 2014). Hence, in the current research, Postpartum depressed: those postpartum mothers who score ≥ 5 cut off point of PHQ-9. From 9 questions each of which has 4 options giving maximum score of 27 and a minimum 0. Normal postpartum mothers (not depressed): those mothers who scored < 5 cut off point of PHQ-9 (Weobong, Asbroek, Soremekun, Manu, Owusu-Agyei, Prince, & et al., 2014).

Women's Abuse Screening Test (WAST)

We used WAST to measure Domestic Violence/Intimate partner violence (IPV). Women's Abuse Screening Test (WAST) is a five-item scale and employed and tested in several countries and across many cultures (Rabin, Jennings, Campbell & Bair-Merritt, 2009 and Zink, Levin, Putnam & Backstrom. We considered WAST scale because of the language use in Ethiopian context. WAST uses a more expressive language as compared to other scales on IPV. The WAST was demonstrated to have a good specificity of 91.4% and predictive validity of 92.4% compared to the Conflict Tactic scale version 2.0 in Ohio (Zink, Levin, Putnam & Beckstrom, 2007) with a cutoff greater than one, at least for one of its items. Its score ranges from 0-16 where a score greater than one indicates the presence of domestic violence.

Social Support

Social support was assessed by using the three-item Oslo Social Support Scale (OSSS-3), a three-item scale which asks about concern from others, ease of getting help, and the number of supporting persons that participants can count on. Its score ranges from 3-14. The scale was originally developed in the Netherlands and has been used widely, including in Ethiopia. A study in Norway categorized the scores into three levels: 3–8 = poor social support, 9–11 = intermediate social support and 12–14 = strong social support with a Cronbach's alpha of 0.60 (Abiola, Udofia & Zakari, 2013).

Ethiopian Demographic Health Survey (EDHS)

An item from the Ethiopian Demographic Health Survey (EDHS) was used to assess the participants' personal data and potential confounders. A semi-structured questionnaire was adopted from standard tools, mainly EDHS. In addition to EDHS we also used WHO and

different literature for further analysis. The questionnaire initially was prepared in English and translated into the local language and retranslated back into English by people who are proficient in both languages to maintain the consistency of the questionnaires.

The questionnaires contained questions to explain socio-demographic characteristics such-as-postpartum mothers' age, religion, marital status, educational background, income source, family income level, employment status, family type, number of pregnancies, nature of delivery, antenatal care, gravidity, postnatal care attendance, and some health-related features of postpartum mothers. These variables were used to describe the study population and to assess any significant association with PPD.

Potential confounders

In addition, based on the identified literature review, the aspects listed below were also assessed as potential confounders. The association between dependent and independent variables including intimate partner violence (IPV), family history of mental illness, and whether the woman wanted to have baby (labeled as “planned”) or if she never wanted to have a baby at all (labeled as “unplanned”) were assessed in order to statistically control for potential confounding effects.

3.8. Reliability and Validity Testing

In Ethiopia, both the Afaan Oromo and the Amharic version of the PHQ-9 have been validated as a screening tool to detect postnatal depression, and were found to have a sensitivity of 78.9% and a specificity of 75.3%, at a cut-off score of 6/7 (Tesfaye, 2009).

Data Quality Control: To ensure the quality of the data, training was delivered for data collectors and supervisors. According to Turner et al (2008), a pilot test is necessary to check if there are flaws, limitations, or other weaknesses within the tools. Pilot-testing allows

the researcher to make necessary revisions prior to the implementation of the study. Hence, pre-tests were conducted with a 5% sample to assess the study instruments' clarity, length, completeness, and consistency. The questionnaires were translated into the local language to facilitate understanding of the respondents. Questionnaires were checked daily for completeness and to correct errors. The completeness and accuracy of data collection forms were checked at the end of each day of data collection. Identified gaps were addressed with the respective research assistants.

Data collection: Qualitative data were collected by four female BSc nurses/midwives. The midwives were recruited from the study area. Training was given for one day about the study objectives, relevance of the study, confidentiality of information, respondents' rights, informed consent, techniques of interview, and how to guide study participants in completing the questionnaire. Moreover, classroom practical demonstration of the interview was carried out. All field questionnaires were reviewed each night and morning. Sessions were conducted every morning with the data collectors to discuss any problems encountered. Participants who were unable to read and write were supported by data collectors to fill out the questionnaire through interviewing.

3.9. Study Variables

In this study the dependent variable was postpartum depression (PPD) and the independent variables included: Socio-demographic factors age, religion, ethnicity, educational status, occupation, household income, family size, pregnancy and labor related factors, history of Cesarean section, perinatal complications, multiparty, unplanned pregnancy, early experience of breast feeding, and social support.

3.10. Quantitative Data Analysis

To minimize errors, each completed questionnaire was coded on pre-arranged coding sheets by the principal investigator (PI). Data were entered into a computer using Epi-info window version 7.1 statistical programs. Ten percent of the responses were randomly selected and checked for consistency of the data entry. Printed frequencies were then used to check for outliers to clean the data. The data were cleaned accordingly and then exported to SPSS Windows version 20.0 for further analysis. Descriptive analysis such as proportions, percentages, frequency distributions, and measures of central tendency were used.

Binary logistic Regression analysis: Initially, bivariate analysis was performed between the dependent variable and each of the independent variables, one at a time. Odds ratios (OR) at 95% confidence intervals (CI) and p-values were obtained. The findings at this stage helped to identify important associations.

Multivariable analysis: All variables found to be significant at the bivariable level (at $p\text{-value} < 0.05$) were entered into a multivariable analysis using the logistic regression model to test the significance of the associations.

3.11. Qualitative Study

This part of the method discusses the qualitative inquiry. The qualitative inquiry was designed to understand the experience of mother's emotional distress, mothers' view of PPD, and midwives' perception and view of PPD. Understanding and defining mothers' experience of emotional distress and perceptions of midwives of PPD is necessary to get further insight about postpartum depression.

3.12. Selection of Study Participants

According to Creswell (2013), there are many types of sampling strategies such as critical case sampling or criterion-based sampling in order to obtain competent candidates that will provide the most reliable data for the study. In addition, issues of honesty and willingness are also important to the quality of the information to be acquired from the study participants.

Hence, purposive sampling strategies were employed to deliberately select postpartum mothers who were willing and had experiences in PPD and social support in their postpartum period. Below is a list of the study criteria used for purposive selection of participants consistent with the objectives of the study. This criterion helped to indicate the target group for the qualitative phase.

3.13. Criteria within the target groups

- Postpartum mothers who had given birth in the study area within one year prior to the data collection date.
- Participants who had given birth and attended PNC service in the selected health facilities of East Shewa Zone.
- Mothers who experienced emotional distress in the first postnatal year.
- Midwives by profession with at least 2 years of practice.
- Participants who were willing and interested to share their experiences

3.14. Sampling for qualitative part

This study used a qualitative approach with in-depth interviews (IDIs). A total of sixteen (16) PPD mothers were selected purposely for the IDPs. But we have only considered ten (10) postpartum mothers.

Table 3. In-Depth Interview Sample for PPD mothers and Midwives

Hospital	<i>PPD Mothers</i>	<i>Midwives</i>
<i>Adama Hospital</i>	3	3
<i>Bishoftu Hospital</i>	3	2
<i>Batu Hospital</i>	2	1
<i>Modjo Hospital</i>	2	1
<i>Total= 17</i>		

Primarily, we approached about 16 mothers and six of them were discarded for their withdrawal and quality-related issues of the interview. The actual participants were 10 for mothers and on the other hand we have recruited seven (7) professional midwives for the third qualitative questions. The sample size of the qualitative study was decided based on the information saturation theory.

3.15. Qualitative Data Analysis

In the qualitative part there were three aims, i.e., aim three, four and five as listed in the objectives. Aim three is to understand mothers' experience of emotional distress in their postnatal period. Aim four focused on their perceptions of social support during PPD and the fifth one aimed to see the views of midwives on PPD. For the above three objectives the main data collection tool were in-depth interviews.

Within this qualitative data analysis part, we used the content-driven themes and interrelated steps proposed by Padgett (2016) as a guiding principle to analyze the qualitative data. Padgett provided a qualitative method in Social Work Research on how-to instruction for carrying out rigorous qualitative research. The five steps included: 1) preparing and transcribing the raw data; 2) coding; 3) memoing; 4) creating themes/categories; and 5) interpretation. Each step was implemented consecutively.

Hence, each IDI session was convened at a venue where there is unlikely to be interruption or excessive noise interference and that was convenient to participants. Interviews commenced with introductions and clarifications about the purpose and procedures of the IDI. The IDIs were facilitated with a guide that contained questions on a range of topics. IDIs were conducted in the local language as agreed upon between the facilitator and participants.

The IDI conductor introduced and guided the IDI sessions. Each interview was tape-recorded. Following the interviews, participants were thanked for their contribution. Immediately after each session of qualitative data collection, word by word transcription of tape records commenced. Progress of the works and key issues of qualitative data collection were discussed during the daily debriefing meeting held with the PI and data collectors.

Taped records verbatim from each sessions of IDI were transcribed into Microsoft Word. Transcriptions of IDI had headings that include: Description of participant/s; name of facilitator; date of interview; number and demographic characteristics of participant (s). Using content-driven themes and interrelated steps approaches of Padgett (2016) as a guiding principle, the outcome report was synthesized. Findings from the qualitative study were drawn to precisely answer the study objectives with recommendations.

3.16. Data Quality Control for the Qualitative Study

Careful measures were taken to increase the credibility and validity of the study by developing and using hand interview guide. Next, a pilot test of the qualitative in-depth interview was conducted with 2 postpartum women. Peer scrutiny was used with two midwives who were willing to comment on the interview-guide before the actual administration to mothers. The researcher conducted this pretest to check and refine the

interview guide and to determine the appropriateness of language use and the cultural appropriateness of the guiding questions.

In the analysis process, we followed standard procedures. Complete transcription and analysis of data was presented to provide meaningful results. To maintain the balance of the interpretation, the researcher used negative case analysis to obtain an alternative explanation by searching for evidence that did not fit with the majority responses and interpretations. Searching for evidence that contradicts the dominant explanation increases the credibility of the data interpretation (Shenton, 2004). The researcher checked for consistency and disagreements of findings with previous studies, and the applicability of the findings to study participants and to a wider scope.

3.17. Integrating Quantitative and Qualitative Data

As outlined in the above section, quantitative and qualitative data were the sources for this study. In order to come up with unified integrated data we used interrelated processes to ensure interpretive uniformity. At the beginning we analyzed and presented the quantitative and qualitative data separately within the findings section. Then, by combining the quantitative and qualitative data we created and transformed data to a single-and coherent format.

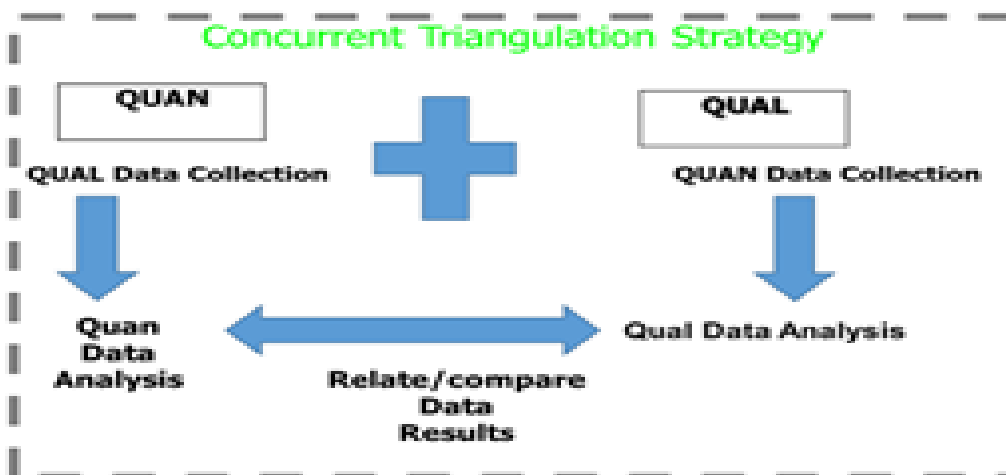
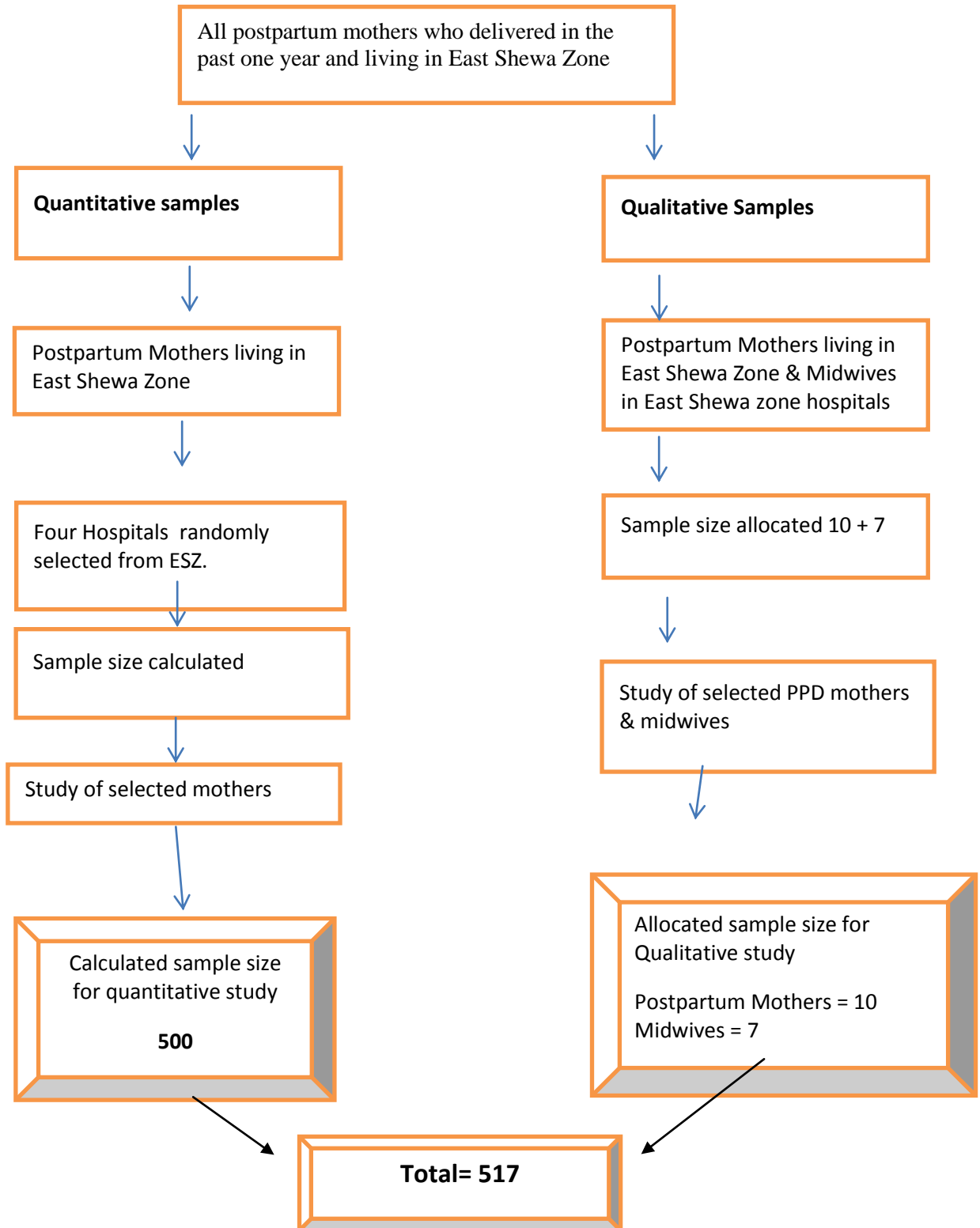


Figure 5: Quantitative and Qualitative Data Integration Diagram

The below figure outlines the summary of the sampling system with a diagrammatic presentation implemented in the study.

Figure 6: Diagrammatic presentation of sampling system.



3.18. Limitations of the Study

In a common parlance Researcher says all studies have limitations. Hence, there are limitations to this study as well. With the common view of limitation, the current study has issues related to methods and scope. The anticipated limitation with regard to methods are due to the integration of both qualitative and quantitative methods. A research studies employing a mixed-methods design encompass the limitations commonly associated with both methods. Hence, we focus our attention to the “Fundamental Principle of Mixed Methods,” which declare that, all methods have strengths and weaknesses and that the strengths are complementary and the weaknesses do not overlap (Tashakkori & Teddlie, 2010). As an example, the qualitative findings cannot be generalized because of a relatively small number of participants and use of non probability sampling. Another limitation involves the restrictions of quantitative data analysis including lack of depth and breadth.

On the other hand, the scope is limmtted in East Shewa Zone; where as Ethiopia is a country with more than 86 languages and diversified cultures with several ethnic groups. Such diversity definitely increases the peculiarities in the social and cultural settings and meanings for any social phenomenon. Since the research on prevalence, associated factors, exploring mothers and midwives expirience was conducted in one of the zones from Oromia Region, Ethiopia, it may not be representative of all areas in Ethiopia.

I am also aware of the sensetiveness of the subject as we deal with person’s personal expiriance. Hence, worked my level best by being careful on the trustworthiness of the qualitative data, researcher bias, respondents’ bias, and reactivity. On the other hand potential threats to reliability and validity of the quantitative data are another limitation issues but, I have tried my best to establishe rigorous verification processes to ensure a

greater degree of reliability, validity, and trustworthiness of the data with the standard procedures and formality.

Table 4: Summary of the Mixed Method Study Procedure

Phase	The implemented Procedure	Achieved Result
Quantitative data collection	Institution-based cross-sectional survey (N=500) (PHQ-9) Oslo-3, IPV(WAST) and SDC	Numeric data
Quantitative data analysis	-Data screening (Binary LR, multivariable) -SPSS 20.0 software)	Descriptive statistics, bivariate analysis, Binary logistic regression
Qualitative data collection	Individual In-depth Interview with 17participants (until data saturation) (purposive selection)	Narrative data (Interview transcript)
Qualitative data analysis	Coding and thematic analysis	Codes and themes Similar and different themes and categories
Integration of qualitative and quantitative results	Interpretation and explanation of the quantitative and qualitative results	Single and coherent data (Discussion, Implications, Recommendations)

3.19. Ethical Considerations

Ethical clearance and permission were obtained from the appropriate Research Review Committee. Permission was secured from each hospital through a formal letter. Medical directors and directresses were briefed on the relevance and objectives of the study. The purpose of the study was explained to the participants and written informed consent was obtained from each participant. Confidentiality of information was maintained by omitting any personal identifier from the questionnaire. Mothers were informed of their full right to skip or ignore any question or withdraw their participation at any stage.

CHAPTER FOUR: RESULTS

4.1. Overview of Results

This part of the study delivers the findings on postpartum depression. Accordingly, the results are reflected in four parts. First, the socio-demographic characteristics of the research participants for both the quantitative and qualitative parts are presented. Then the binary LR and multivariable analyses are presented followed by descriptions of the prevalence of PPD, social support, and IPV scales using computed percentages, ranges, mean, and standard deviations. Next, factors related to postpartum depression are explained using multivariable logistic regression analysis. A *p*-value of 0.05 was considered to be statistically significant. Independent variables with $p < 0.2$ on bivariate tests were entered into the binary logistic regression model. Finally, the mothers' emotional experience of depression and their social support practice is discussed well.

Data were collected from 500 postpartum mothers. The SD variables of the study participants included 14 variables: age, religion, ethnicity, marital status, occupation, husband's occupation, educational background, husband's educational background, household economy, having radio, having TV, having Mobile phone, family size and place of residence.

4.2. Socio-demographic and economic characteristics of the participants

About 550 mothers were invited to participate in the quantitative study. Out of 550 mothers 50 questionnaires were discarded for incompleteness and withdrawal during data collection. Hence, 500 mothers were included in the quantitative study with an overall response rate of 10%. The majority of the participants (65.5%) were less than 29 years old. Regarding ethnicity, religion, and marital status, the majority of the participants were Oromo (70.4%), about half (49.2%) of the respondents were Orthodox and married (88.2%),

respectively. Seventy-two percent lived in urban areas and 42.6% attended primary education. Many women (80.8%) do not engage in the formal job sector. Regarding the economic condition of participants, many (61.8%) earn less than 2000ETB per month. Most mothers (94.6%) had a mobile phone and 73% had a television (Table 5).

Table 5 Socio–demographic characteristics of study participants in East Shewa Zone of Ethiopia (n = 500).

Variable	Response category	Frequency	Percent
Age in years	< 29	328	65.5
	29 and above	172	34.4
Ethnicity	Oromo	352	70.4
	Amhara	56	11.2
	Gurage	35	7.0
	Others*	57	11.4
Religion	Orthodox	246	49.2
	Muslim	156	31.2
	Protestant	67	13.4
	Catholic	16	3.2
	Others**	15	3.0
Marital status	Single	27	5.4
	Married	441	88.2
	Widowed	9	1.8
	Divorced	23	4.6
Place of residence	Rural	140	28
	Urban	360	72
Educational status	No formal education	7	1.4
	Read and write	133	26.6
	Primary education	213	42.6
	Secondary education	80	16
	College diploma and above	67	13.4
Occupational status	Employed	30	6
	Daily laborer	50	10
	Housewife	404	80.8
	Merchant	8	1.6
	Student	8	1.6

Husband education	Read and write	3	0.6
	Primary education	251	50.2
	Secondary education	164	32.8
	College diploma and above	82	16.4
Household income	Less than 2000	309	61.8
	2000 and above	191	38.2
Has a mobile phone	Yes	473	94.6
	No	27	5.4
Has a radio	Yes	1	0.2
	No	499	99.8
Has a TV	Yes	135	27
	No	365	73

* Wolayita, Kambata, Mekan, Mareko, ** traditional religion

4.3. Obstetric Characteristics of study participant

Pregnancy-related factors, obstetric-related, and other psychosocial factors. A descriptive report of these factors is presented below. Table 2 shows different factors of PPD which could occur during pregnancy. About 34% had been pregnant before the current condition and the majority (94.4%) became pregnant after the age of 18 years. About 12% had abortion experience and 5.4% had a stillbirth experience. About 8% had an unplanned pregnancy (Table 6).

Table 6: Factors related to pregnancy among depression mothers in the Hospitals of East Shewa Zone

Factors related to pregnancy		Frequency (n=500)	Percentage (100%)
Previous history of pregnancy	No	332	66.4
	Yes	168	33.6
Age at first pregnancy	18 and less	28	5.6
	Above 18	472	94.4
Abortion	No	442	88.4
	Once	58	11.6
Stillbirth	No	473	94.6
	Once	27	5.4
Pregnancy status	Planned	459	91.8
	Unplanned	41	8.2
Gestational age	less than 38	209	41.8
	38 and above	291	58.2

About 99% of the women had a vaginal delivery, and 31% experienced different types of complications during and post-delivery. The complications include hypertension, loss of consciousness, severe headache, pain during urination, severe weakness, severe bleeding, blurred vision, high fever, vaginal discharge, difficulty breathing, and severe abdominal pain. Eleven percent of the participants reported dissatisfaction by the maternal service they got from the health centers and only 11% were aware of PPD (Table 7).

Table 7: Factors related to delivery

Factors related to delivery		Frequency (n=500)	Percentage (100%)
Mode of delivery	Vaginal	494	98.8
	Caesarean section	6	1.2
Obstetrics complications	No	345	69
	Hypertension	16	3.2
	Loss of consciousness	18	3.6
	Severe headache	16	3.2
	Pain during urination	14	2.8
	Sever weakness	18	3.6
	Others signs & symptoms	22	4.4
Satisfaction with the service	yes	445	89
	No	55	11
PPD awareness	yes	55	11
	No	445	89

4.4. Previous history of depression, substance abuse and social support

Almost none of the participants reported substance use and history of well-known mental illness, but 12% had a spouse who used alcohol. (Table 8).

Variable		Frequency (n=500)	Percentage (100%)
Previous history of mental illness	No	499	99.8
	Yes	1	0.2
Substance use	yes	0	0
	No	500	100
Partner substance use	No	437	87.4
	Khat	4	0.8
	Alcohol	59	11.8
Social support	Poor	84	16.8
	Moderate	53	10.6
	Strong	363	72.6
Intimate partner violence	No	80.4	80.4
	Yes	98.6	19.6

Table 8: Previous history of depression, substance abuse and social support among the PPD mothers in ESZ

Intimate partner violence

The study also indicated that the prevalence of intimate partner violence was 19.6%. This shows significant number of mothers are facing challenges of intimate partners violence.

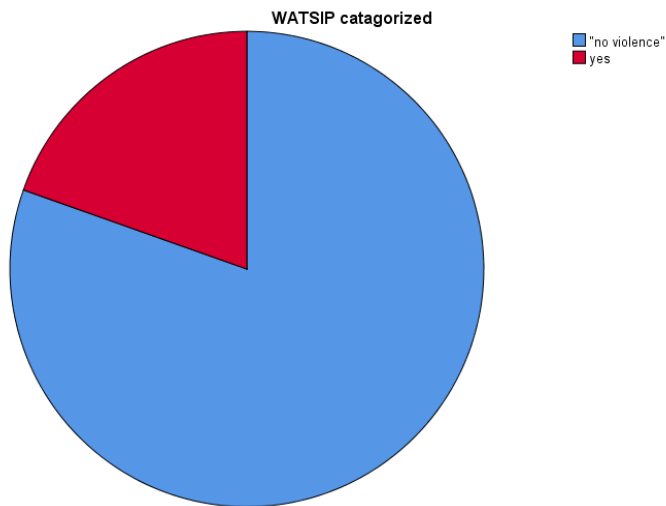
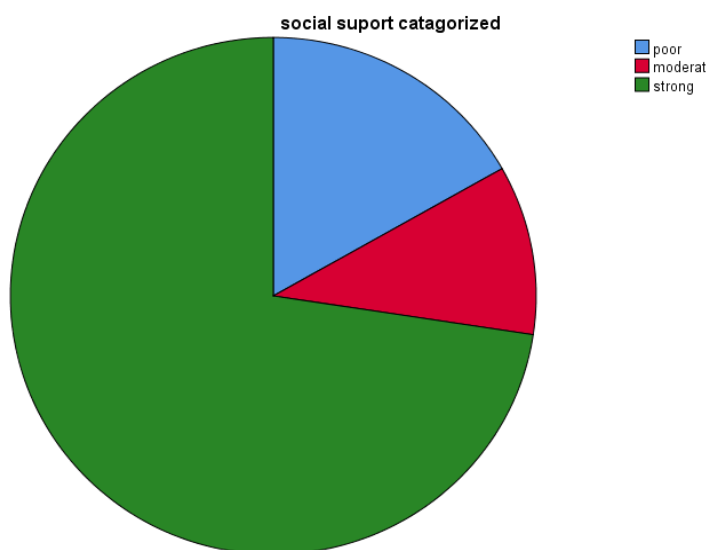


Figure 7: Intimate partner violence

Social support

Regarding social support, about 16.8% were categorized under poor social support, 10.6 % were moderate social support and 72.6 had Strong level of social support using the 3-item Oslo Social Support Scale.



4.5. Factors related to family

Table 9 presents family-related factors. These factors include the need for more children, decision-maker on having more children, number of live children, family size, sex of preference for the new baby, history of infant illness, and infant death. About 5% and 11% reported infant death and infant illness, respectively. About 54% of the participants preferred a male baby many participants (58%) had 3 or fewer family members in the household and 92% of the participants reported having 2 or fewer children. Many participants (91.6%) intend to have more children (Table 9).

Table 9: Family-related Factors for PPD

		Frequency (n=500)	Percentage (100%)
Intend to have more children	Yes	458	91.6
	No	42	8.4
Decision maker on having more children	Husband	10	2
	upon agreement	490	98
No. of live children	2 and less	459	91.8
	above 2	41	8.2
Family size	3 and less	290	58
	more than 3	210	42
Sex of the baby	Male	241	48.2
	Female	259	51.8
Baby sex preference	Male	269	53.8
	female	231	46.2
History of infant illness	No	447	89.4
	Yes	53	10.6
History of baby death for the last one year	No	474	94.8
	Yes	26	5.2

4.7. Prevalence of postpartum depression

The prevalence of postpartum depression was 23.2% with 95%CI of 20 - 27. Mean score of 4.4, (SD+ 1.62). Depression symptom scores and standard deviation were 1.62 and ± 4.4 respectively. The minimum depression total score was 0 and the maximum was 21 (Figure 9).

Prevalence of PPD using the PHQ-9 score (Depressed 23.2 and non-depressed 76.8%)

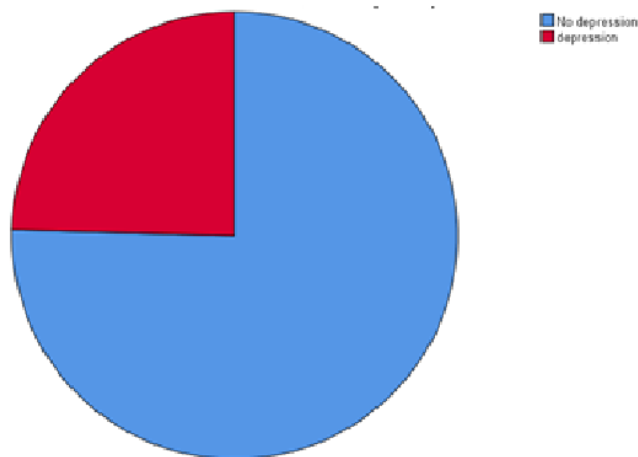


Figure 9: Prevalence of PPD

4.7. Predictors of Postpartum depression

4.7.1. Postpartum depression by Socio-demographic variables

A bi-variable logistic regression analysis of postpartum depression (PPD) by socio-demographic economic characteristics indicated that maternal age, residency, level of education, husband occupation, and monthly income were significantly associated with postpartum depression (PPD). The odds of having PPD were three times higher in mothers older than 28 years compared to younger mothers (COR = 3.21, 95% CI (2.09 – 4.95), p-value < 0.001). Whereas, mothers who were rural residents were 60% less likely to have PPD compared to mothers who were urban in residence (COR = 0.40, 95% CI (0.23 – 0.69), p-value = 0.001). Mothers who were only able to read and write had a 90% less probability of PPD compared to mothers who completed primary school (COR = 0.10, 95% CI (0.43 –

0.24), p-value < 0.001). The odds of developing PPD was 2.2 and 2.5 times higher in mothers who have a government employee and merchant husbands, respectively, compared to wives' daily laborer (COR = 2.21, 95% CI (1.28 – 3.81), p-value = 0.004; COR = 2.49, 95% CI (1.16 – 5.34), p-value = 0.019 respectively). Finally, the odds of mothers who reported a monthly income of 2000 and above to exhibit PPD were 1.8 times higher compared to mothers who reported a monthly income of less than 2000 ETB (1 USD = 30ETB, during the data collection period) (COR = 1.84, 95% CI (1.21 – 2.81), p-value = 0.005) (Table 10).

4.7.2. Postpartum Depression by obstetric characteristics

A history of pregnancy, history of abortion, history of stillbirth, and pregnancy status were significantly associated with having PPD. The odds of mothers with previous history of pregnancy were to have PDD were five times higher compared to mothers with no previous history of pregnancy (COR = 5.31, 95% CI (3.40 - 8.28), p-value < 0.001). Similarly, previous history of having an abortion and stillbirth were found to be significantly associated with current PPD. The odds of mothers who had a previous history of abortion to develop current PPD were 6.9 times higher compared to those who have no previous history of abortion (COR = 6.88, 95% CI (3.86 – 12.29), p-value < 0.001). Similarly, mothers who had a previous history of stillbirth were found to have 18 times higher odds of developing PPD compared to mothers who had no previous history of PPD (COR = 17.98, 95% CI (6.63 – 48.73), p-value < 0.001). Finally, the odds of mothers whose pregnancy was unplanned to have PPD were 3.6 times higher compared to those mothers for whom the current pregnancy was planned (COR = 3.65, 95% CI (1.90 – 7.01), p-value < 0.001) (see Table 10).

Obstetrics complications, satisfaction with the service, and PPD awareness were found to be significantly associated with PPD. We found that the odds of mothers who reported obstetrics complications to have PPD were 9.1 times higher compared to mothers

who reported no obstetrics complications (COR = 9.10, 95% CI (4.70 – 17.62), p-value < 0.001). Similarly, the odds of mothers who were not satisfied by the service to develop PPD were 3.3 times higher compared to mothers who were satisfied with the service provided (COR = 3.29, 95% CI (1.84 – 5.86), p-value < 0.001). Finally, the odds of mothers with awareness of PPD to be cases of PPD were 1.9 times higher compared to those who were not aware of PPD (COR = 1.92, 95% CI (1.05 – 3.50), p-value = 0.033) (see Table 10).

4.7.3. Postpartum Depression by previous history, substance abuse and Social Support

In terms of psycho-social factors, substance use history of partner, social support, and intimate partner violence were found to have a significant association with PPD. The odds of mothers who have a substance user husband to have PPD were 3.3 times higher compared to mothers whose partner did not use substances (COR = 3.32, 95% CI (1.91 – 5.77), p-value < 0.001). In the same way social support was found to be significantly associated with PPD. The odds of mothers with poor and moderate social support to have PPD were 1.7 and 2.1 time higher, respectively, compared to mothers with good social support ((COR = 1.71, 95% CI (1.00 – 2.92), p-value = 0.048; COR = 2.08, 95% CI (1.11 – 3.88), p-value = 0.022, respectively). Finally, the odds of mothers who reported intimate-partner violence to have PPD were 1.9 times higher compared to mothers who did not report intimate-partner violence (COR = 1.98, 95% CI (1.22 – 3.22), p-value = 0.006) (see Table 10).

4.7.4. Postpartum Depression by Family-Related Factors

From family related factors more children need, decision maker on number of children, family size, and baby sex preference were significantly associated with PPD on bi-variable analysis. On which the odds of mothers who do not want more children to have PPD were 2.2 times higher compared to mothers who want more children (COR = 2.23, 95% CI

(1.15 – 4.32), p-value = 0.017). Similarly, the odds of having PPD on mothers were 8.2 times higher in families where the husband was the decision maker on the number of children compared to those families on which the decision on the number of children is made based on mutual agreement (COR = 8.25, 95% CI (2.10 – 32.45), p-value = 0.003). The other variable found to be associated with PPD was family size, on which the odds of the mothers to have PPD was three times higher in families with more than three members compared to families with less than or equal to three members (COR = 3.00, 95% CI (1.95 – 4.61), p-value < 0.001). Similarly, the odds of having PPD were 1.6 times higher in mothers who prefer to have female baby compared to mothers who prefer baby boy (COR = 1.64, 95% CI (1.08 – 2.49), p-value = 0.021). In the same way, the odds of having PPD was found to be two times higher in mothers who reported a history of infant illness compared to mothers who reported no history of infant illness (COR = 2.04, 95% CI (1.12 – 3.74), p-value = 0.021) (Table,10).

4.7.5. Multivariable logistic regression analysis Model predicting Postpartum

Depression

On the final model, which is described below in Table 10, variables with p-values of less than 0.25 in the binary LR analysis were included to control for potential confounders. Variables found to have a statistically significant association with PPD in the multi-variable analysis with PPD were maternal age, husband occupation, history of abortion, history of still birth, obstetrics complications, partner substance use, and baby sex preference. This study showed that the odds of mothers who were 29 years old and greater were 2.9 times higher than younger mothers to develop PPD (AOR = 2.88, 95% CI (1.50 – 5.53), p = 0.021). Being a student hold 7.94 times higher odds of having PPD compared to mothers who were housewife's (AOR = 7.94, 95% CI (1.10 – 57.16), p = 0.040). Similarly, having a history of abortion was reported to have 12 times higher odds of developing PPD than those with no

history of abortion (AOR = 12.08, 95% CI (5.28 – 27.64), $p < 0.001$). Likewise, mothers with a history of stillbirth had 16 times more odds of developing PPD than those who had no history of stillbirth (AOR = 16.20, 95% CI (4.24 - 61.90), $p < 0.01$).

In other analyses, experiencing obstetric complications was reported to have 12.3 times higher odds of developing PPD compared to those who had no experience of obstetrics complications (AOR = 12.27, 95% CI (4.83 – 31.22), $p < 0.001$). Likewise, the odds of having PPD were 7.9 times higher in mothers who had a partner who used substances compared to mothers whose partner did not use substances (AOR = 7.94, 95% CI (3.40 – 18.54), $p < 0.001$). Finally, mothers who preferred a female baby had increased odds of having PPD. The odds of mothers who prefer a female baby in developing PPD were 2.6 times higher than mothers who preferred a boy (AOR = 2.65, 95% CI (1.10 – 6.41), $p = 0.030$) (Table 10).

Table 10. Multivariable logistic regression model predicting postpartum depression among mothers in Hospitals of East Shewa Zone, East Ethiopia

Variable	Category	COR (95% CI)	P value	AOR (95% CI)	P value
Age	< 29 years	R		R	
	>= 29 years	3.21 (2.09 - 4.95)	0.0001**	2.88 (1.50 – 5.53)	0.001*
Residence	Urban	R		R	
	Rural	0.40 (0.23 - 0.69)	0.001*	0.73 (0.32 - 1.64)	0.444
Educational Level	Illiterate	1.63 (0.36 – 7.51)	0.528	5.23 (0.71 – 38.52)	0.105
	Read and write	0.10 (0.04 - 0.24)	0.0001**	0.38 (0.11 - 1.38)	0.141
	Primary education	1.00		1.00	
	Secondary education	0.68 (0.38 - 1.22)	0.198	0.69 (0.31 – 1.53)	0.363
	College diploma and above	0.93 (0.51 - 1.69)	0.805	1.34 (0.54 - 3.32)	0.534
Occupation	Government employee	0.63 (0.24 - 1.70)	0.364	0.31 (0.08 - 1.23)	0.096
	Daily laborer	0.70 (0.33 - 1.48)	0.346	0.72 (0.25 - 2.04)	0.537
	House wife	R		R	
	Merchant	0.45 (0.06 - 3.72)	0.460	0.15 (0.01 - 2.59)	0.191
	Student	1.90 (0.45 - 8.09)	0.386	7.94 (1.10 - 57.16)	0.040*
Husband Occupation	Government employee	2.21 (1.28 - 3.81)	0.004*	0.91 (0.37 - 2.24)	0.842
	Daily laborer	R		R	
	Private work	0.94 (0.56 - 1.60)	0.831	1.24 (0.48 - 3.23)	0.657
	Merchant	2.49 (1.16 - 5.34)	0.019*	2.20 (0.59 - 8.21)	0.243
Monthly Income	< 2000 ETB	R		R	
	>= 2000 ETB	1.84 (1.21 - 2.81)	0.005*	0.50 (0.20 - 1.27)	0.147
Owning mobile	Yes	R		R	
	No	0.40 (0.12 - 1.36)	0.144	1.52 (0.26 - 8.98)	0.647
Owning TV	Yes	1.54 (0.98 - 2.42)	0.058	1.26 (0.56 - 2.87)	0.576
	No	R		R	
Previous hx of Abortion	Yes	6.89 (3.86 - 12.29)	0.0001**	12.08 (5.28 - 27.64)	< 0.001**
	No	R		R	
Previous hx of Still birth	Yes	17.98 (6.63 - 48.73)	0.0001**	16.20 (4.24 - 61.90)	< 0.001**
	No	R		R	

Pregnancy status	Planned	R		R	
	Unplanned	3.65 (1.90 - 7.01)	0.0001**	1.460 (0.57 - 3.72)	0.428
Mode of delivery	Vaginal	R		R	
	Caesarean Section	3.41 (0.68 - 17.13)	0.136	0.69 (0.09 - 5.34)	0.721
Experiencing obstetrics complications	Yes	9.10 (4.70 - 17.62)	0.0001**	12.27 (4.83 - 31.22)	< 0.001**
	No	R		R	
Satisfaction with the service	Satisfied	R		R	
	Not satisfied	3.29 (1.84, 5.86)	0.0001**	1.58 (0.66 - 3.81)	0.309
PPD awareness	Aware of PPD	1.92 (1.05, 3.50)	0.033*	0.78 (0.33 - 1.87)	0.584
	Not aware of PPD	R		R	
Partner substance use history	Yes	3.32 (1.91 - 5.77)	0.0001**	7.94 (3.40 - 18.54)	< 0.001**
	No	R		R	
Social support	Poor	1.71 (1.00 - 2.92)	0.048*	0.20 (0.03 - 1.43)	0.110
	Moderate	2.08 (1.11 - 3.88)	0.022*	1.65 (0.60 - 4.53)	0.335
	Strong	R		R	
Intimate partner violence	Presence	1.98 (1.22 - 3.22)	0.006*	3.56 (0.63 - 20.01)	0.149
	Absent	R		R	
Intend to have more children	Yes	R		R	
	No	2.23 (1.15 - 4.32)	0.017*	1.77 (0.73 - 4.31)	0.207
Decision maker on number of children	Husbanded	8.25 (2.10 - 32.45)	0.003*	1.02 (0.142 - 7.26)	0.986
	Mutual	R		R	
No of children	<= 2	R		R	
	> 2	1.62 (0.81 - 3.25)	0.170	1.26 (0.46 - 3.46)	0.659
Baby Sex	Male	0.75 (0.49 - 1.14)	0.172	1.60 (0.67 - 3.86)	0.291
	Female	R		R	
Sex preference	Male	R		R	
	Female	1.64 (1.08 - 2.49)	0.021*	2.65 (1.10 - 6.41)	0.030*
History of infant illness	Yes	2.04 (1.12 - 3.74)	0.021*	2.20 (0.96 - 5.00)	0.061
	No	R		R	
History of < one-year baby death	Yes	2.20 (0.97 - 4.98)	0.060	1.10 (0.33 - 3.65)	0.875
	No	R		R	

* for variables significantly associated with PPD at p-value of < 0.5; ** for variables significantly associated with PPD at p = 0.0001

4.8. Qualitative Study

Participants' profile for the qualitative inquiry

The qualitative part of the study employed in-depth interviews (IDPs). The IDPs were conducted in an environment that was suitable to conduct the IDP sessions. More than 20 mothers were invited to participate in the qualitative part of the study. Sixteen postpartum mothers were selected voluntarily and deliberately to be participants in this part of the study. Before the in-depth interviews we screened mothers' level of PPD by using the PHQ-9 (See Table 11 for the PHQ-9 scores). Ten mothers finished the interview successfully. The age of study participants varied from 18 to 40 years old with a mean age of 28.

Five mothers were Orthodox Christian followers, three were Muslims, and two were protestant Christian followers. Seven of the study participants were married, two were separated, and one was divorced. The study participants' family size ranged from 2 to 7.

Cases	Age	Religion	Marital status	Family size	No of delivery	Education	Employment	Nature of delivery	PPD score
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Regarding their educational background, one study participant was a University student; two participants hold their first degree. One participant had a Masters Degree. Two of the study participants were educated to 10th grade and another three studied up to 9th Grade. One participant completed 8th grade.

Six of the 10 study participants were house wives. Two study participants were involved in small businesses in the informal sector, one participant was employed in an NGO (non-governmental organization), and another participant was employed in a Government organization. Five of the study participants gave birth to their first child where as another three study participants gave birth to their second child. Two mothers who were interviewed gave birth to their fourth and sixth child, respectively. Seven study participants had labor delivery and three had a C-section. In our screening their level of PPD ranged from 8 to 17. All names shown in Table 7 are pseudonyms based on the confidentiality agreements. The below table displays the participants' profile for the qualitative study.

Beshatu	24	Orthodox Christian	Married	3 (with husband)	1 nd	University student	Small business/traditional cloth shop	Labor	12
Etenesh	29	Orthodox Christian	Married	4 (with husband)	2 nd	9 th Grade	Housewife	C-section	14
Hortu	25	Orthodox Christian	Married	3 (with husband)	1 st	1 st Degree	Housewife	Labor	16
Hibo	35	Muslim	Divorced	5 (lives alone)	4 th	9 th grade	House wife	C-Section/ Twins	12
Medrek	30	Orthodox Christian	Separated	3 (with husband)	1 st	9 th grade	House wife	Labor	10
Alamitu	19	Muslim	Separated	2 (lives alone)	1 st	10 th grade	Small business/traditional coffee	Labor	17
Sara	18	Orthodox Christian	Married	3 (with husband)	1 st	10 th Grade	House wife	C- Section	13
Baftu	26	Protestant Christian	Married	4 (with husband)	2 nd	Master's Degree	Government Employee	Labor	8
Zeinab	40	Muslim	Married	7 (with husband)	6 th	8 th Grade	House wife	Labor	15
Lelisa	36	Protestant Christian	Married	4 (with husband)	2 nd	1st Degree	Working in NGO	Labor	8

Table 11: The profile of qualitative study participant

4.9. Experience of postpartum depression among mothers in East Shewa Zone

Within the qualitative part of the study the third research aim was to explore the experience of postpartum depression among mothers in the East Shewa Zone. Mothers expressed their experience in various ways. The in-depth interviews (IDIs) revealed a new

dimension of the reality mothers are facing. Some of the reflections match the quantitative result, but there are new issues and experiences that were not revealed by the quantitative analyses. The new perspectives and thematic areas uncovered in the qualitative study include: mothers' own experience, violence using social media, living costs (inflation of the current Ethiopian economy), expectation vs reality, lack of experience/ newness to the situation, and mothers' experiences of coping. Some of the qualitative findings aligned with the quantitative analyses such as mothers' health status, issues related to the newborn, feeding habits, behavior of the new baby, health of the baby, sleeping pattern of the baby, alcoholic husband, socio- economic status, and work status/joblessness. The narrative data were categorized into seven major themes:

- Emotional Distress
- Related to the newborn
- Violence against women
- Socio- demographic factors
- Social support
- Coping Mechanism
- Related to the hospitals and midwives

Within the above seven major themes, we also come up with emerging and subordinate sub-themes.

Table 12 displays the themes and sub-themes identified from the interviews of the ten participants.

Themes and subthemes	PPD Mothers who raised the theme
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	N=10 (100%)
Emotional distress <ul style="list-style-type: none"> • Lack of experience/ Newness to the situation • Mothers own health related • Mothers expectation 	100% (10) <ul style="list-style-type: none"> • 50 % (5) • 30 % (3) • 10 % (1)
Related to the newborn <ul style="list-style-type: none"> • Feeding habit/breastfeeding • Behavior of the new baby • The health of the baby • Sleeping pattern of the baby 	100% (10) <ul style="list-style-type: none"> • 40 % (4) • 50 % (5) • 20 % (2) • 40% (4)
Violence against women <ul style="list-style-type: none"> • Violence • Alcoholic husband 	100% (10) <ul style="list-style-type: none"> • 20% (2) • 30 % (3)
Socio- economic status <ul style="list-style-type: none"> • Work status/Joblessness • Economic instability in the country / continuous inflation/ living cost/ 	100% (10) <ul style="list-style-type: none"> • 40 % (4) • 50% (5)
Social support <ul style="list-style-type: none"> • Emotional support • Financial support • Support related to cleaning & washing clothes • Appraisal support 	100% (10) <ul style="list-style-type: none"> • 60 % (6) • 50 % (5) • 70 % (7) • 60 % (6)
Coping with PPD <ul style="list-style-type: none"> ✓ Prayer ✓ Spiritual song ✓ Holy water ✓ Walking /physical activity ✓ Listening modern Music ✓ Taking to family member ✓ Watching movies ✓ Reading Bible ✓ Asking for help ✓ Crying 	<ul style="list-style-type: none"> • 100% (10) <ul style="list-style-type: none"> ✓ 60 % (6) ✓ 50% (5) ✓ 30% (3) ✓ 50(5) ✓ 60% (6) ✓ 30% (3) ✓ 30% (3) ✓ 40% (4) ✓ 20% (2)
Related to the Hospital & services <ul style="list-style-type: none"> ✓ Happy with the services ✓ Not happy with the service 	<ul style="list-style-type: none"> • 100% (10) <ul style="list-style-type: none"> ✓ 70% (7) ✓ 30% (3)

Table 12: Themes and sub-themes identified from the interviews

4.10. Mothers' Experience of Emotional Distress

Mothers shared about their own positive and negative experiences of emotional distress in different ways. Biftu, a mother from Batu expressed her positive experience of her postpartum period by saying:

My experience after being mom and before differs. Before, I was using all my time in my shop, working my job on my own. But, after I get my son, I have to give time. Sometimes, I even shut down my shop, until I get somebody to help me. This directly affected my income but it's nothing if I compare the blessing, I have to have baby. Actually, should not be compared. But still I like it the way it is. Yes, no problem for that. In my family I used to cook myself, my husband works in government office. With my baby as a new member of our family everything is changed. Including volume of TV, electric light and I have to be awake when he needs breastfeeding, changing diapers, washing and cleaning every stuff of my baby. Generally, the feeling is different sometimes tiresome. But, when I see my son, I get source of inspiration. It is totally new experience of both excitement and new life style. I am enjoying it.

Some of the mothers expressed negative experiences in their time of PPD. One study participant described her experiences as a challenging and bad one in terms of her socio-economic status: Alamitu said

I passed through stressful experience; I was not able to do what I wanted to do. My heart thinks big but practically doing nothing this makes me feel so sad. I cry several times when, by the way when I cry; I get relief. Since my situation was not good, I was not comfortable to talk to anyone when I compare before and after; now I am passing new way of life new challenging experience.

Lack of Experience/ Newness

The issues of lack of experience and newness of being a mom is reflected as another negative experience of mothers during the postpartum period. There are mothers who enjoyed their postpartum period and mothers who suffered and self-blamed for not having enough experience on how to handle the new baby. Sara complained:

She is my first born and now is the third month, I sometimes feel I might not fit to be a good mother. I say this because, I don't have any experience of holding and washing baby. Specially I am worried to give her bath, I mean it I don't have experience and it's scary to give her bath.

Lelisa explained her fear on how to handle the newborn.

Soon I get birth, the first two weeks were scary, as I didn't have experience of handling my baby. I fear just because I might not be good mom, I felt sleepy and tired almost every day in the first two weeks.

In contrast, some mothers who had good experiences in handling newborns and no complaint of emotional distress as Beshatu shared: "Regarding my experience, since I was mother and gaurdian to other childrens I have no problem on handling newborn" The experiences differ from mother to mother as reported in our findings. The current finding is also in congruent with the evolutionary perspective which assertively states that, postpartum depression might be the outcome of an adaptive function that indicates a likely appropriateness charge to the mother. The issues of newness and adaptive problem is identified as a factor to PPD (Nebraska, 2005).

Mothers' Health Status and PPD

Mothers' health is taken as one of the factors in the quantitative study. We also have observed mother's health as one of the factors in their experience of emotional distress in the review of literature. Some mothers complained that their source of distress is their own health status. Lelisa said: "I have been to hospital several times. I am sick and I have continuous bleeding. My own health situation makes me worry, what will happen if I die? This is the question in my mind".

Zeinab, another mother from Adamah, reported her health status makes her feel distressed as a result of the surgery and its aftermath.

Since I gave birth with CS, I have the pain still and actually there was some infection after the surgery. That infection has affected me and now am taking medication. The medication, the doctor said no problem on your child it's mild medicine for breastfeeding mothers. Though I have to breastfeed the doctors advised to take medicine. No option I have to do it. So, I worried and feel distressed, when I take the medication. As I do not want to hurt my baby as we heard breastfeeding mothers should not take medicine.

Mothers' expectations

The qualitative research revealed additional, insights from mothers on their perspectives and expectations to be a mother. As they describe their reality is often different from their expectations. Some mothers expressed their dissatisfaction with the reality as opposed to expectations. Biftu said:

I expected a lot to my situation, I thought its easy, but in reality, being a mom is not easy. It's takes a lot, it takes time, it takes discipline, it takes money, it takes passion and it also takes a lot.

Bushatu reported that even though she is happy to be a mom she expressed distress about the mismatch between reality and her expectations.

To be honest being mom is something that I loved to be. I feel like I am glad to be a mom. But sometimes I feel distress when I think of the reality and my expectation. Being mom is not just funny, it's not funny. But it has lots of fun with pleasant stay with my baby. The expectation starts from the real day-to-day activity to raise my baby, and goes to my interactions with the whole family and neighbors. Before I gave birth, since I love children and I have experience of showing love to kids. But when I give birth seems like nobody cares about my baby, people live their life. And every corner my expectation is different from the reality on the ground.

4.11. Related to the newborn

Feeding habit/ breastfeeding

PPD mothers reflected their source of distress is directly related to the health, feeding habits, and general condition of their newborn. Medrek was desiring and dreaming to do breastfeeding but it was not possible and she had difficulty in feeding her baby with breastfeeding.

Soon after my delivery, I heard my baby crying out loud, the people in hospital said it's normal, then the issues of breastfeeding started then itself. I tried it didn't have milk. He continues to cry and I was sick. And the situation was sorrowful. Here my pain then he cries. I was totally confused with the phenomena. My husband was with me, I told him to call my mom, He said I will call her once everything is done. Told him to call now, just now. Then she comes the same day in the evening. She was happy but am crying. She said what happened. The baby is taking formula milk just in day one. My mom said, "No worries it's will come in a couple of days. Then its third month my baby is taking formula milk. I am really distressed about this.

The baby's behavior is also one of the sub-themes identified in the IDIs. Some mothers reported challenging behaviors of a newborn such as abnormal crying and needing all the time to be in the hands of the mother. Biftu said:

When my Babyboy cries and behaves in a strange way, I feel sad as he will continuously makes me stressed. You know he wants to be always in my hand. I am human being; I need to rest but he wants to remain in my hand and take breastfeeding the moment I keep him on the bed he starts shouting. Oh really, I am suffering and already distressed with this experience.

Another reported case of child related issue is the health of the baby. As mothers are emotionally, biologically attached with her baby she critically follows her baby's health status. In our qualitative study Horenius said:

I just do not want to take my baby to hospital at this age, she is too small. Whenever she is not feeling good she cries. Her health situation really makes me feel distress. But, I have taken her to pediatricians three times. What to do? Sometimes it seems kind of luck. I don't understand; my prayer is for my babygirl to be healthy. That's why I am here. You know I cry when she cries.

The health of the baby

In our sample three mothers stated that the health of the baby contributed to their emotional distress. Zeinab said:

When my baby is sick, I felt terrible, most of the time specially whenever she got fever, she faints, It's really scary. I am consulting pediatricians. I am worried about this thing. Actually, the Doctor told me to take out her clothes and do bathing or sponging her with lukewarm water. That helped us to bring down her fever.

Whenever she has fever, I am doing that first, if no change I am taking her hospital.

This is the bad experience I am facing she has frequent fever.

Sleeping pattern of the baby

The fourth sub-theme with the child-related case is the sleeping pattern of a baby. Sleeping pattern was raised as a stressful experience by the majority of the participants. Horenius said:

For example, now he is sleeping and let me put him to the place. Then he wakes up.

And slowly again I tried my level best yet, he is not sleeping. It really disturbing situation, specially during the time you really need rest. The baby's sleeping pattern is really decisive part that needs solution. So that as a mother we can get time to rest.

Hibo said:

My son does have sleeping problem, we have to carry him before he sleeps. He does not need any voice. Any voice can make him disturbed. My house set up itself might be a problem that cause him to wake up as a noise pollution are too much around our sub-city.

A mother from Bishoftu town, Alamitu, reported if she does not carry her baby he will not sleep:

If I do not carry him, he will never sleep. I think we have done wrong in handling my baby boy. As my mother keeps him in the mattress let him sleep by himself, then we continued to carry, now he learned, I think this may be why he is not sleeping when we put him in his bed.

Mothers reported the sleeping pattern of a child is a challenge and makes them feel distressed. From the above respondents we can infer that; sleeping pattern of a baby leads postpartum mothers to feel distressed.

4.12. Domestic Violence

Domestic violence is one of the factors contributing to mothers' emotional distress. One of the research participants named Etenesh repeatedly mentioned the violence she faces from her intimate partner:

I don't have anyone to call even my partner was not around he left the house for almost two months. When he came in the fourth week after my delivery, for one week he was behaving (at least by not smoking in the house and not asking me money) but after one week he continued his daily life style. He started to disturb me, insult me. I don't have someone here to help me. He does not care about me. He even wants me to give him money irrespective of my situation, he never worries about his own daughter. He even smokes at home, several times he drank and beat me he also come home in the mid-night its really difficult. Since he came, I feel distressed. In his absence I was managing on my own.

One of the partners told us her experience of violence from her former boyfriend. In her current experience of being a mom the source of depression is the threatening behavior from her ex-boyfriend using social media platform. Alemitu explained her current situation and experience:

Before my marriage, I had another boyfriend. We broke up 3 years ago. Now I came to modjo, I have a husband. My ex-boyfriend used to scare me by some personal and very private picture and that he threatened to post on social media. Another person got some personal picture from him and he asked me some money and want to do sex with me, he warned otherwise he will post it to the wider public, including my husband. At this period of PPD, my husband and I only know each other for one year as a friend and we came to marry. I told him I had a boyfriend. But some of the

pictures are taken without my knowledge and I was shocked when I saw it. This is an offense against me via social media. They came to know that as I am married from social media page of my husband. Now they are threatening me saying we will share this pic! They are repeatedly threatening to share on my husband page. Now I am worried.

These kinds of issues were not mentioned in our quantitative studies, but emerged through the indepth interviews of the PPD mothers. Violence against women is one of the factors we found contributing to the distress of new mothers.

Alcoholic partners

Two participants reported that their partner is alcoholic. One reported that her husband does not harm her, but the other participant, Etenesh, reported her husband abuses her when he gets drunk:

My husband is a drinker almost daily. He does not beat me or do anything. By the time he drinks, he is just comic and becomes sleepy. But I am worried by his behavior. As for me, my daily life is packed with walk of responsibility for my baby and myself. I have a lot of things to consider. Earlier it is normal to be with my partner even if he is drunker; I don't care. I was not that much committed to our relationship. Our relationship was started like being good friend. By then he used to be very funny, but after getting together and living together he is not as I used to know him. He is just typical drunker. He get drunk always he had no clue why he is doing it he just drunk. He never hurted me or abuses when he got drunk. But I feel sad for him to be like the way he is. He works but, he finishes his money by drinking. So sad about this expierience of mine.

In contrast, Lelise reported about her husband's abusive behaviour. According to her, her husband is very naughty when he get drunk. Her sources of distress is his habitual life style of getting drunk: "When my husband gets drunk, he thinks he is the creator of everything. He acts mad and bossy. I am sick and tired of his behavior when he gets drunk."

4.13. Socio- economic status

Three participants reflected the issues related to socio-economic status. This sub-theme reflects mothers' accounts of the emotional effects of their difficult life experiences related to their socioeconomic status. Some mothers indicated that their emotional distress was a result of current economic instability in the country. They used expressions like, When I think of our economic status, I feel "sad," '*stressed*', '*afraid*' and '*desperate*'.

One participant Alemitu said:

I was new to the place where I live and the place is rental house in the outskirts of Adama. My neighbors are daily laborers, so I spend day time at home alone, it was really difficult to get help. Like I told you the first two weeks, a woman whom I know by my coffee place, she supported me. After that, I passed through a lot of challenge, I even worried and cried several days. Being poor and as the same time alone is not good. As you know in this town, when you have money you will have a lot of social connections. But if you don't have enough money and if you are poor nobody wants to associate with poor.

As illustrated in the above statement, socio-economic status was identified by mothers as one of the factors contributing to PPD.

Work status/Joblessness

There are mothers who struggle to survive, and there are also mothers striving to be involved in bread winning activities. Mothers' work status or joblessness emerged as a pervasive contributing factor to depression, specifically when it comes to food, shelter, and constant income. The below quote illustrates how this experience affects Lelisa: "I do not have job. I am housewife, even though I get what I need from my husband. But still I feel bad for not working. I do not have job." In addition, another study participant also complained about the issues of joblessness as a source of emotional distress:

"I am a House wife, my partner works in government and living cost is too high and we are not managing and I feel stressed when I think of not being capable of providing what my baby needs. If I get a good job I will support, my baby, mother and my siblings to live a better life. But, am not able even to cover my own expenses, it's a painful experience "

4.14. Economic instability in the country / continuous inflation/ living cost

Four participants shared their concern of economic instability as a depressive experience and used sentences like, "Everything is increasing every day; our birr has lost value.", "I can't buy what I need with this income.", "The living cost is increasing and things are not predictable here" And "Yesterday you buy 100 Birr today they tell you 120 or even more, it is difficult".

Sara stated:

"You know the living cost is unpredictably increasing. We are struggling to survive; things are getting worse. I am terribly worried, with the current economic issue. This makes me to be distressed and worried. How I can cope to feed my kids? I can't afford the current price of diaper and milk, it's just everything seems against me, why this happens now, there are times that I really felt like this is bad time to

have a baby. I wonder how other mothers are coping with this crazy economic situation. It really affected me; I know not only me all mothers like me.”

4.15. Mothers’ Experience of Social support

Our second objective in the qualitative part of the study was to explore the type of social support mothers received during the postpartum period in the study area. The participants expressed that they had different positive and negative experiences. Some mothers received good social support from their partners, friends, and family members. On the other hand, there are mothers who did not get enough social support. The types of support received were mainly financial, emotional, and physical support with washing clothes and cleaning the house.

Emotional support

During the postpartum period, many mothers encountered several distressing situations. In this study mothers shared about their experience of emotional support. The sources of such support are from their mothers, partners, family members, and friends. Horenius said: “My mother is a source of inspiration for me. She always encourages me even when I fail to do some activities. She understands me well, the emotional support that I got from my mom was important.” Mothers’ experience specially those mothers who delivered with cesarean sections and with stitches reflected that in their experience of emotional distress, emotional support was very important. Lelise said:

”My partner supported me a lot even with things that he does not had experiences with. He cook by himself, he washes his own clothes by hands, he does shopping for household. It’s wonderful. He was not like this before his encouragement and work involvement helped me to be strong emotionally. Such

support are good. My experience in this regard is very good. Her meals during the first few days after delivery.

On the other hand, Belaynesh said that “my husband supported me during bathing. Hence, I was physically weak due to the cesarean delivery.” Three mothers stated that their husband had discharged several responsibilities in supporting them. They also reflected the same experience of support from husbands such as gently carrying babies and putting them to sleep when they wake up in the night. The support includes not only holding the baby but also having the husband stay at home. Two of our informants Biftu said:

After I gave birth my husband started to be home early. But before my delivery he used to stay late and he focusses outside. Now there seems a life style change. He wants to stay home whenever he is free from work. This has encouraged me emotionally. I never expect him to be home early because I tried, he never changed his life style but after I gave birth, he is with me so far. At least he had seen the reality that he is needed at home. This kind of things helped me to be relieved. When he is out, even now I feel distressed because his presence can make a difference in all we do. Now he has learned diaper changing, washing clothes, and etc. He is wonderful.

In contrast, some mothers expressed their distress due to a lack of emotional support. They explained that the roles of their partner were not sufficient and they did not understand the mothers’ concerns. Some partners did not encourage the postpartum mothers.

Hibo said:

We got our second child. But my husband wants me to continue doing everything on my own. I expected at least emotional support and togetherness

from him, but not as my expectation he is just leaving as usual, but I needed support from him several times.

Financial support

In a common practice in most Ethiopian rural families, it is the husband who plays the role of bread winner. Hence, husbands provide financial provisions. Medrek said:

I was not working, I am house wife, but my husband provides the money that I need. I have no worries on my financial needs. He does what he can. I know what he can, I just ask accordingly. I do not ask for something that is out of our financial scope. So, financial things are not a problem so far. The problem is he thinks if he provides money, he is done. But that's not right, he has to support at home. I believe if you provide money with no appraisal and emotional support might bring distress. Finance is big issues but, still I need more of him not just his money.

Some postpartum mothers who participated in this study said that as part of the traditional culture, friends, neighbors, and relatives especially those who visit postpartum mothers give some money in showing togetherness and encouragements. Hortu said;

“Financially, I have received support as its common practice especially when the visitor is a man, he gave money. If the visitor is women, she brings butter for my hair. Such support is very important and useful I bought soap and other materials with the money I received in such way”

Four study participants added they have received money, butter, and several gifts including clothes and diapers as well from the visitors. Hortu added: “My friends and my family member gave me diapers, money and visits and encouragements. That's very helpful. I liked it”. In contrast, other mothers reported a lack of financial support, struggling on their own with no support from anyone. Etenesh said:

I passed through challenging experience. There was time that I felt bad, stressed and even confused. Oh, it was difficult. Being poor is not good human being we need to work. When I think of what I passed. I really want to thank God. Yes, I want to thank God. Because it was even dangerous time. But I am alive now. If it was not the help of GOD, I was not hear today talking to you. No joke. Mine is known, but what I felt bad was when I think of my baby. Who will take care, who can help her? There is no one that can be reliable. Or economically, I was not strong enough, Though I work, it just enough for my expenses only. As it's known, our life is just hand to mouth. But I know if I keep on working, I will be changed. I can make big things.

Support related to cleaning and washing clothes

Indeed, there are mothers who said they got enough support for cleaning and washing clothes. Our study participant Medrek said:

I have enough social support. For my baby and even for myself I get all clothes washed and cleaning house by my mother. My friend also supports us when she visits us after work. Regarding washing clothes and cleaning there is no problem.

There are also mothers who have a very good social support from their family. Sara one of the study participant said

I get support in handling my baby when I sleep. Mom supports me a lot. She even stays till today with me. I have a very good support from my husband as well. He took paternity leave and annual leave from his work and stayed with us. My husband is a very understanding and good person. He is there for me. If it was not him, it would have been difficult. But thanks to God I have him. He cares for the baby and for all my family as well.

In contrast, some mothers suffer alone for lacking social support. Etenesh said: “I have no anyone to support in washing clothes, actually my friend supported me for a few days otherwise, I am struggling on my own. As I said my partner does not care”

4.16. Mothers coping mechanism with PPD

Regarding coping mechanisms mothers have their own ways of handling their feelings. Majority of the mothers said prayer and spiritual songs are their ways to get relief. there are also mothers who mentined, holy water, walking /physical activity, listening modern music, taking to family member, watching movies, reading bible, asking for help and crying

4.17. Mothers experience in the hospital

We also asked our study participant regarding their feeling on the services delivered by the hospitals. Mothers came with diversified view on the service they received. A mother from Bishoftu hospital said “I am thankful to all the staff here, I liked their comitment and I am happy with their treatment.”

Three mothers from Adama reflected positively with the service they received in the hospital:

“I am happy, with the services, it’s very good.”, “I was accepted without any payment just for free, regarding this I am happy” and “They are good, I am happy for the free service, but they are harrying for everything, but still fine.”

In contrast, other mothers complained on the services and the treatment by the midwives. Another from Modjo said: “I am not happy with this hospital. They do not respect me; I feel they don’t have compassion.”

Moreover, we have received this view on dissatisfaction from a mother who delivered at Batu Hospital,

I am not happy with the midwives, they did not respect me, I was even angry in the delivery room. The expression they used, even I was insulted, it was crazy moment dealing with such annoying midwife. They do not have to be like this, they should respect mothers. The language they use is so bad.

As we have witnessed, some mothers praised the midwives and were full of thankfulness and there are also mothers who had bad experiences in the hospital.

4.2. Part two of the qualitative study

4.2.1. Characteristics of the seven Professional Midwives

Seven midwives were recruited for the in-depth interviews on their views towards the work they do with postpartum mothers and PPD. Five were female and two of them were male midwives. Their experience levels ranged from 2 to 16 years. From which 2 of them has work experience of sixteen years. Three had three years of experience and the remaining two had four years and two years of work experience respectively. Their age ranged from 25 to 35 years (Mean = 30 years). Four participants were married and three were single. All of the study participants had first degree. And none of them used any known screening tools for PPD.

#	Age	Sex	Work experience	Education level	Marital status	Screening experience
1	35	Female	16 years	1 st Degree	Married	No
2	33	Female	More than 16 years	1 st Degree	Married	No
3	25	Male	2	1 st Degree	Not married	No
4	29	Male	4	1 st Degree	Married	No
5	26	Female	3	1 st Degree	Not married	No
6	25	Female	3	1 st Degree	Married	No
7	26	Female	3	1 st Degree	Married	No

Table 13: Characteristics of Midwives who participate in qualitative part

Below are discussed the finding from the in-depth interview with professional midwives

What is covered in the discussion? We have discussed the midwives work in general and their work with postpartum mothers in particular. Their own related issues and their view towards the work as midwives, we also talked about social and economic aspect of their job and their work environment in general by far seeing it might contribute for depression on postpartum mothers indirectly. All midwives discussed more about their experiences working as midwives and reflected their concern on PPD and also the midwives conferred that attention is not given to PPD.

Below are themes developed from the conversations as midwives has their own positive or negative contribution for PPD general perception of PPD in their own work as midwives

Themes	N= 7 (100%)
• Socio-economic aspect of their work	• 7 (100 %)
• Salary	• 7 (100 %)
• Job satisfaction	• 4 (57.14%)
• Supportive supervision and clinical mentoring	• 7 (100 %)
• Education and knowledge of Midwives regarding PPD is very little	7 (100 %)
• Screening experience	7 (100 %)
• Not giving attention	7 (100 %)
• Work load	7 (100 %)
• No social worker	7 (100 %)
• Lack of knowledge on handling social issues	7 (100 %)

Table 14: Themes developed from the midwives

4.2.2. General views about their professional life as Midwives

Socio-economic aspect of their work

Most of the seven staff participant reflected that, there is a deference or value in their work. They mentioned they need to be respected by the government as well by being paid a proper amount of reimbursement. According to participants, the lack of respect for the midwife profession is a problem, such as mutual relationships between midwives, the lack of understanding of the roles of midwives among physicians, health officers, nurses, public opinion, and financial departments.

For me being a midwifery by itself is distressing experience here with this setting and payments. The work load is too much and will pressurize us, but the payment is too small. The management sees only as we are on job but nothing else, we are working hard, with all the limitation. We work on duty where sometimes many cases come in midnights and clients are not happy as a result of that, they are not happy as some times we do not reach them equally one labor in one couch and another waiting and our clients are not happy as result they do not respect us. (Batu Hospital)

In contrast midwife from Adama said:

Our clients are satisfied with our facilities. For instance, they are thankful by our delivery services as we work as a team. In case of our absentees from the Hospital, they check out availability of our team via our personal phone. I personally, serve with all my potential and they are satisfied. Sometimes there might be high flow of cases and high burden of work, but still manageable.

A male midwife from Batu has differing experience regarding the views of the family of his clients. He said:

The communities' after their visit here; they have different perception, understanding and attitude towards the activity conducted by midwife professionals. There are people who has good attitude and there are people who do not have good attitude. Some of them see it completely different angle how a man sees a woman? Even though it's not that much frequent but it happens to be seldom. But still possible to say the community has good attitude towards us (Midwifery).

One midwife reported a high workload on the two midwives available per hospital. Likewise, one female midwife at Bishoftu Hospital said:

As a midwife we have asked several times to work by being in team but we never get positive answer to date. In one night up to 10 or 12 mothers delivers but this is done with small number of midwives. This should be considered, because this is the main reason that makes mothers to complain. When you go to treat one mother the other mother feels abandoned and may get depressed it's too bad. With this condition I cannot say mothers do get good treatment from us. I also worried. For me this might have contributed for depression during postpartum period as a bad beginning.

Salary

Many respondents talked about the payment structure; midwives are poorly paid. Most respondents said that they received their salary regularly. Some participants indicated that the payment structure is a sensitive subject. Participants expressed their concern that in a different payment structure, cost savings could occur which could possibly lead to a reduction in income for health professionals. Almost all of the participants suggested that it is necessary to consider improvement of the remuneration by the concerned authority.

Our participant from Modjo Hospital said: “My salary is not enough. The work I do, the risk I take and the payment I get do not match. Many professionals because of this they are shifting to other departments.” In addition to this view a participant from Bishoftu Hospital said: “There is no delay for our regular salary payment. But our concern is the amount of payment. The payment is very less as compared to our busy schedule of work and in comparison, to other health workers who got relatively less pressure.”

Midwives’ Job satisfaction

The working condition (work environment) was assessed through interviewing the midwives. Some participants reflected that midwives are not able to perform their tasks due to poor working conditions. The work environment was assessed whether they are well qualified, in-service training and professional development to improve the quality of care, provision of incentives and promotion, job stratification, supportive supervision or clinical mentoring, training on PPD and screening, clinical decision making.

Most midwives feel they are satisfied or happy after attending normal deliveries and providing newborn care, ante-natal and postnatal care services. They feel unhappy when there is death of a newborn. In addition, all of them mentioned their distress with the payment. Otherwise they liked their job as a profession: A study participant from from Bishoftu Hospital said; “I will be happy when mothers and infants got relieved, I am happy when mothers are happy.” In the same way participant from Modjo Hospital “Everybody would be happy at the end. I feel happy when I accomplish my own work.” and another Male Midwife from Adama Hospital said “I feel so happy at the end of my work. I’m pleased to work than stay idle.”

Supportive supervision and clinical mentoring

From East Shewa, midwives participated in-depth interviews unanimously stated that the supervision and mentorship support were very minimal. Female midwife said:

“Supportive supervision is very small and training on PPD is none” Similarly, male midwife from Modjo Hospital said “The attention we get is poor. I do not know why. There is no supportive supervision regarding PPD. I never heard about it”

The majority of respondents stated that there is neither movement regarding PPD nor mentorship program in the hospitals so far. As mentorship builds confidence of midwives, it also helps them to be informed about new ideas and practices. This will help to provide quality services in many aspects of the mother’s health including PPD. All midwives (at East Shewa zone) said that they have never taken any training regarding PPD. “I know PPD, even though it I have never involved in trainings about PPD. At Modjo Hospital we are getting several capacity building trainings but none of the training is about PPD”.

Some respondents also reported a lack of skill in screening. Most expressed a desire for training on screening of PPD.

“We did not get training on PPD and screening of PPD and we did not give any attention as the multitude of mothers are here to deliver” Midwife from Bishoftu Hospital

“I needed to have training to safely practice procedures like applying screening and managing PPD. I do not give screening because I did not receive the training on screening”. Midwife from Modjo

“There are areas that I need additional training, I am not able to manage depression cases since I don’t have any training. So, I make a kind of oral diagnosis sometimes and make a referral”. Midwife from Adama Hospital

A staff member from Batu Hospital said:

“I don’t feel confident in handling real PPD cases. I immediately refer if I came to know it is something depression. I encounter such cases. So, it is better if I get additional training on them”.

Some participants maintain that they have skills gaps due to the lack of training and insufficient experience, and others were very interested to have the skills and blame the working environment. Most respondents also said that their skills improved over time with experience and additional trainings particularly in PPD is important. In general, participants agree that training is required.

“Previously the health professionals might not be aware of PPD. They refer most cases to other professionals. They were referring very simple cases to manage because of lack of sufficient knowledge and skills related to PPD.” Midwife from Adama.

4.2.3. Midwives on their views of postpartum depression

We asked the midwives about their views and engagements with PPD.

A participant from Modjo hospital shared:

“To be honest, we don’t really work on postpartum depression by making it priority, you can see it no one gives time to mothers once they finished, they go to their home. They came for vaccination again. That is it”.

We questioned when and who should be giving responsibility to handle mothers with postpartum depression. Midwives had clear but often differing views of when and who should give professional support to mothers regarding emotional distress. Many midwives reflected that discussion may not help the PP mothers at this stage:

“Mothers are so inattentive with the fact that they are having a newborn; and they that are unlikely to be interested in discussion to take time talking about their feelings and experiences following childbirth”.

Some midwives thought that for certain groups of women, such as for teenage mothers, raising the subject of PPD might be useful.

“I personally suggest raising issues and testing for PPD would be more important for the new teenage mothers as they don’t have experience. We need to treat them in a way that could support them to get relief. But for this we need to be trained still.”

“Yes, they will go once we discharge, they came only for vaccination to BCG not to us. The time they stay with us is very limited. They are just on their couple of days of their postnatal period, hence cannot be the right time to mention.”

Midwives were also asked if they ever informed postnatal mothers about PPD in addition to other postnatal care.

“We are handling several clients with delivery and labor-related issues. We tend to do our routine work in assisting with delivery. But, discussing about PPD in our realities, it seems not possible. But I feel it’s necessary to talk to mothers with the time frame of 4 to 6-weeks during their postnatal visit for vaccination. I think it’s good because by then women are more settled and getting back to normal”. Midwife from Adama

“I don’t think that I need to discuss PPD in depth with them once they are done with delivery; I just discharge them into their home.”

In addition, a midwife from Bishoftu said:

“I don’t think many women would be very open to discussing their feeling soon after delivery, as you can see, they came after six weeks to another department called BCG for vaccination, they don’t come to us. Because, like I say they have got so many other things that they are thinking about.”

Midwife from Adama

“It has to be in a more private setting to advise mothers by midwives, so they have more opportunity to discuss things more fully. But as for me, theoretically, I know a little bit about PPD, but I have done nothing practical on PPD.”

Limited education and knowledge of Midwives regarding PPD

Some midwives recalled that this was briefly addressed during their initial midwifery training but others could not remember receiving formal PPD education at all.

“As we are not practicing PPD treatment as midwives, I do not remember entirely, but I had taken introductory courses and class discussion. But like I said I have not up to date and practical engagements on PPD” Batu Hospital

There were variations in how midwives perceived PPD. Most felt they were not up to date, or whether a new way to approach handling of PPD had appeared since they qualified.

“To be honest, if I am asked a detailed question about PPD, perhaps I mightn’t be able to respond, specially the latest updates with the themes of PPD.”

They felt that a lot of training would be needed to bring them up to a sufficient level of understanding to handle PPD and screening in detail to reduce emotional distress of mothers. Talking about the PPD education they have received, one midwife shared:

“I’ve never recall practical issues about PPD. Probably I heard more about emotional distress when we talk challenging behaviors of some mothers; specially, when actual behavioral disturbance occurs in the ward some of staff members guess it might be depression. But, practically speaking I have done nothing to count with PPD. We tend to concentrate on the delivery rather than PPD. But we need to have training and workshop on PPD.”

Another participant from Modjo said

“It’s up to you to know more about PPD, nobody or even agent gives you training about PPD; yes, we don’t get specific sort of training on it, whenever we suspect PPD we just refer the mother to the psychiatry department.”

Many of our study participants believed that postpartum mothers would benefit if there is a separate counseling and treatment part that is specifically designed for PPD within their hospital. Especially for new mothers, teenage mothers or women with significant medical or social issues would be important. The midwives think that targeting such mothers on screening with PPD is important and requires adequate training. They also suggested that separate work ownership unspecific group will be vital to deal with this purpose.

Even though no midwives currently conducted screening of PPD with the latest tools, midwives were referring mothers with challenging behaviors to the psychiatry department for further diagnosis.

When asked what they would do when they suspect a mother has PPD, a midwife from Adama said that:

“I believe we could do great things if we could make advise and treatment as part of our job, if there is a system to follow mothers with PPD.”

A midwife from Bishoftu added that:

“It is good to be trained but since we do a lot of things in our ward, this job will be best, if it’s done by some other professionals not us, we do a lot here we are busy, one after the other delivery.”

Those who thought it would be good to be able to deal with PPD did raise concerns that their job was already extremely busy and the amount of training that would be required to deal with PPD and to maintain this skill would be considerable.

Midwives were also asked questions like “Some research revealed that knowledge of midwives on PPD can be a contributing factor for PPD. What do you think about this view? Almost all of them accepted this view saying should they know well they can make a difference. “I totally agree with you, we may reduce the burden of PPD mothers if we all trained well. We are not the one who cause, but our knowledge might reduce depression.”

For the question Do you think views and perceptions of a professional midwives can influence PPD? Participants unanimously agreed their influence could be high.

A study participant from Adama stated: “Midwives work not only with depression, we work with life, our work is full of responsibility, so our good knowledge not only minimize depression but also life”. The study participants agreed with the view perceptions of a professional midwives can influence PPD. They even suggest on job training on PPD to raise awareness should be offered to midwives’ staff as well.

CHAPTER FIVE: DISCUSSION OF STUDY FINDINGS

Introduction

The current chapter demonstrate the discussions on major findings of the study. The discussed topic includes; magnitude of postpartum depression, factors associated with PPD, PPD and violence against women, social support and issues in relation to the hospital has been discussed briefly.

The current study is conducted with an institution based cross-sectional survey aiming to explore prevalence and associated factors of postpartum depression and also would like to explore on the views of midwives however the study has got limitation both in scope and methodology. As a common limitation in the method part; we share the views of all methods have limitation, hence we are not free of limitation. On the other hand we are limited to East Shewa Zone; where as Ethiopia is a country with more than 86 languages and diversified cultures with several ethnic groups. Such diversity definitely increases the peculiarities in the social and cultural settings and meanings for any social phenomenon. Since the research on prevalence, associated factors, exploring mothers and midwives experience was conducted in one of the zones from Oromia Region, Ethiopia, it may not be representative of all areas in Ethiopia.

5.1. Magnitude of postpartum depression

The magnitude of PPD was measured using the PHQ-9 (Patient Health Questionnaire). PHQ-9 is locally validated both in Afaan Oromo and Amharic version. Taking from a study conducted in Ghana; the optimal cut-off to designate possible depression was 5 and/or above (Weobong, Asbroek, Soremekun, Manu, Owusu-Agyei, Prince, & et al., 2014). Hence, in the current research, depressed: those postpartum mothers who score ≥ 5

cut off point of PHQ-9. From 9 questions each of which has 4 options giving maximum score of 27 and a minimum 0. Normal postpartum mothers (not depressed): those mothers who scored < 5 cut off point of PHQ-9 (Weobong, Asbroek, Soremekun, Manu, Owusu-Agyei, Prince, & et al., 2014). (for more read chapter three)

Accordingly, the magnitude of postpartum depression in this study was 23.2. This finding shows a substantial proportion of mothers, i.e., 23.2%, experienced PPD. This finding is consistent with findings from Poland 23.2% (Marzena Kaźmierczak, 2014), India 22% (Patel, Rodrigues & DeSouza, 2002), Central Finland 22.2% (Hiltunen P. 2003), and Lahore 25% (Seema Daud, 2008). A study conducted in the capital city of Ethiopia, Addis Ababa, revealed that nearly the same magnitude of PPD with the current study findings, i.e., 23.3% (Addishiwet & Yohannes, 2018). Likewise, another study in Addis Ababa found a similar result with a significant amount of PPD 23.3% (Fantahun, Cherie & Deribe, 2016).

On the other hand, the finding in this study was higher compared to findings from Japan 7.7% (Yamamoto, Abe, Arima & et al, 2014), Iran 6.9% (Abdollahi F, et al. 2016), Canada 8.69% (Lanes, Kuk & Tamim, 2011), Czech Republic 10.1% (Fiala & et al. 2017), Sudan (9.2%) (Khalifa et al.2015), Greenland (8.6%) (Iben Motzfeldt, et al. 2013), Uganda 6.6% (Nakku, Nakasi & Mirembe, 2006), Nigeria 14.6% (Adewuya, Fatoye, Ola, Ijaodola, & Ibigbami, 2005), and the Soddo district in South Ethiopia 12.2 % (Hanlon et. al 2018).

However, the finding in this study is less than the prevalence reported in some parts of Ethiopia and other countries. PPD in South West Ethiopia was reported to be high with a prevalence of 33%, (Kerrie & et. al, 2018). Hanlon and colleagues (2017) reported that 28.7% of women had postpartum depression symptoms in rural Ethiopia around Butajira. In Bale Oromia Region, South East Ethiopia, findings revealed a prevalence of 31.5% for PPD (Tefera et al. 2015). A cross-sectional study conducted in Amhara region, northern Ethiopia

came up with a higher result of 32.8% of mothers having PPD symptoms (Joy, Angela, Yared & Dereje, 2014).

In addition, a study conducted in South Africa reported PPD with 34.7% and up to 50.8% in the Democratic Republic of Congo (Cooper et al. 1999; Imbula, Okitundu, & Mampunza, 2012). In Pakistan the range of PPD is from 28%-57% (Kazi, Fatmi, & Kadir, 2006), and 35%-50% in Latin America (Wolf, Deandraca, & Lozoff, 2002), Nepal 30% (Giri, et al. 2015), Pakistan 33.1% (Muneer, et al. 2009), Uganda 43% (Kakyo, et al 2012), Asia 63.3% (Klainin, &Arthur, 2009) and South India 45.5% (Johnson, et al. 2015).

Thus, there are discrepancies with the prevalence of PPD across regions and countries. The discrepancy perhaps arises from the different measurement approaches related with each study. Some of the differences could be because of the differences in study setting, study approach, study design, study year, socio-demographic characteristics of the participants, and type of screening tool employed. The current study was institution-based while some of the above-mentioned studies were community-based, the current studies used PHQ-9 scale while others used self-reported questionnaire (SRQ-20) and EPDS (Edinburg Postpartum Depression Scale). On the other hand, there might be personal bias if some mothers were not honest to express their true feelings and ideas. Such factors might have contributed to the discrepancy in the findings.

5.2. Factors Associated with PPD

Within this specific sub topic as a factor associated with PPD: the researcher reflected. Socio-demographic factors, psycho-social factors, factors related to pregnancy, abortion, still birth and factors related to the baby.

Studies in low- and middle-income countries reported that PPD has some identifiable risk factors. Depression may result from socio-demographic factors (Casey, Goolsby, Berkowitz, Frank, Cook, Cutts, et al., 2004). The current study found that the socio-demographic factors such as maternal age, residency, level of education, husband occupation, and income level were significantly associated with postpartum depression (PPD).

The current study is also congruent with studies conducted in Southern Africa and Vietnam, where systematic reviews indicated that antenatal depression is affected by socioeconomic factors like poverty (Fisher, Mello, Patel, Rahman, Tran, Holtn & et al , 2012; Fisher, Mello, Izutsu, Tran,2011), low income (Hartley, Tomlinson, Greco, Comulada, Stewart & et. al, 2012), and lack of education and permanent job (Fisher, Mello, Patel, Rahman, Tran, Holtn & et al, 2012). This study is also in consistent with a meta-analysis conducted by Stewart and et. al (2003), and another meta-analysis by Beck (2001) which confirmed the association of sociodemographic factors with PPD.

A cross-sectional study conducted on the prevalence and associated factors of postpartum depression in Southwest, Ethiopia revealed that PPD is associated with socio-demographic factors such as age, marital status, economic status, and educational level of both the postpartum mothers and their spouses (Kerie, et al, 2018). Age, maternal educational attainment, place of residence as well as husband's educational attainment has a significant association with PPD (Fiala, et al. 2017, Giri, et al. 2015; Muneer, et al. 2009 & Patel, Rodrigues & DeSouza, 2002). However, the impact of socio-economic factors on depression remains inconsistent; a community-based study in rural Ethiopia revealed there is no association between socioeconomic factors and PPD. Such discrepancy might be the difference in methods and study nature as explained above.

Furthermore, we also found from the qualitative interviews that mothers perceive that socio-demographic factors contribute to PPD. Mothers in the study said that the socio-

economic challenges and inability to give important and basic things to the baby makes them feel depressed. In addition, some of the study participant mothers reported that, the source of their emotional distress is linked with their socio-economic challenges, including, income.

Among the pregnancy-related variables, pregnancy plan, history of abortion, history of still birth, and pregnancy history were significantly associated with having PPD. The odds of mothers whose pregnancies were unplanned to have PPD was 3.6 times higher compared to those mothers for whose current pregnancy was planned (COR = 3.65, 95% CI (1.90 – 7.01), p-value < 0.001). This finding is consistent with findings in Sudan (Khalifa et al., 2015), North America (Brett, Barfield & Williams, 2008) and South Africa (Stoltenberg & Abrahams, 2015). Likewise, Tigistu, Fantaye and Susan (2018) reported that unplanned pregnancy was highly associated with PPD.

In congruent with this view our study participant from the in-depth interview also mentioned that, she came to marriage because of out of wedlock pregnancy. This happening makes her to feel distressed several times. Some mothers complained the sources of their emotional distress unplanned pregnancy and mistiming of having a baby. There are also studies that confirm the unplanned pregnancy and delivery brought about distress on mothers.

In the current study, previous history of having abortion and still birth were found to be significantly associated with PPD. The current study is in line with studies conducted in rural Ethiopia Sodd district (Hanlon & et. al 2017). This research also goes in line with the findings of (Fisher, Tran, La B, Kriitma, Rossenthal & Tran (2010); Lancaster, Gold, Flynn, Yoo , Marcus & Davis (2010) who found that still birth and abortion were associated with increased maternal depression. In addition, women with stillbirth and abortion were more likely to have postpartum depression than were women without a history of stillbirth and abortion (Giannandrea et al., 2013). On the other hand, the odds of having PPD was found to

be two times higher in mothers who reported a history of infant illness compared to mothers who reported no history of infant illness. From our indepth interview also, there are mothers who had history of abortion and still birth. That expirience of abortion was painfull memory and still they said they have a fear and self blame, that makes them to feel less confident weather they could be good mothers. Moreover, this makes them to feel emotionally distressed.

5.3. PPD and violence against women

The season of PPD is mostly associated with both psychological and biological changes of mothers. While on one hand, the mother has to deal with her new task for her newborn, she has responsibility for the family as well. Moreover, she also has to deal with her own physical and emotional condition. Having this reality on the ground, challenges including violence against women by the intimate partner makes their postpartum period depressive. In this study, the prevalence of intimate partner violence was 19.6%. The odds of mothers who reported intimate-partner violence to have PPD were 1.9 times higher compared to mothers who do not report intimate-partner violence (COR = 1.98, 95% CI (1.22 – 3.22), p-value = 0.006).

A study conducted in Addis Ababa found that 23% of study-participants who were the victims of domestic violence had symptoms of postpartum depression (Adinew & Adamu, 2018). Domestic violence was positively and significantly associated with symptoms of postpartum depression. The current finding is less as compared to the WHO report which says globally 1 in 3 or 35% of women have experienced some form of violence (i.e., physical and/ or sexual violence) by an intimate partner (García-Moreno, Pallitto, Devries, Stöckl, Watts, & Abrahams,2013). The highest prevalence of IPV has been found in Africa and South East Asia. Along with high prevalence, there is also higher social acceptability toward violence inflicted by a partner in these regions (WHO, 2012).

Substance use history of partner, social support, and intimate-partner violence were found to have significant association with PPD. In addition, in the qualitative part of this study, our informants also repeatedly mentioned that, substance use and intimate partners violence is one of the major contributing factors that makes them to feel depressed. This finding is consistent with findings from a study conducted in Mizan Aman town, Bench Maji zone, Southwest Ethiopia (Tigistu, Fantaye & Anand, 2018).

5.4. Social support

Postpartum depression was remarkably understudied in the current study area. Some studies indicate that social support is helpful to minimize depressive feelings and emotional disturbance during the postpartum period. In the same way the present study revealed that social support was significantly associated with PPD. The odds of mothers with poor and moderate social support to be cases of PPD were 1.7 and 2.1 times higher, respectively, compared to mothers with good social support. In support of our current findings, Leahy-Warren et al. (2012) reported that social support was a strong contributing factor that affects women to lead a healthy life. Other studies also indicated the positive influence of social support for good emotional adjustment (Ballard & Radley, 2009).

In one of the studies mothers who had high levels of social support were able to establish more secure attachments with their infants than were women with low levels of social support (Crockenberg, 1981), suggesting that social support may be an important resource for parents of new infants. Although good relationships with others, especially the spouse, have been associated with adjustment and adaptive parenting in the postpartum period, little is known about the mechanisms through which social support helps women cope with the stress of childbearing. A systematic review by Biaggi, Conroy, Pawlby, and Pariante (2015) suggested that the lack of a partner or social support was associated with higher rates of antenatal depressive and anxiety symptoms while Yim et al. (2015) found that low social

support and poor quality relationships with close others was a predictor for postpartum depression. Fisher et al. (2012) conducted a systematic review into the determinants of depression in low income countries and found that difficulties in the relationship between the woman and her partner were associated with depression.

Mallick et al. (2010) indicated that family and social support are necessary for postpartum mothers. Postpartum mothers who typically lived with their nuclear family or relatives found to have a better emotional adjustment.

In the present study, the study sample showed a significant association between lack of social support and postpartum depression. Social support plays a role in encouragement of new mothers, supporting good adjustment during the postpartum period (Chen et al., 2007).

For women who juggle multiple roles, having strong and positive support from others is correlated with a stronger immune system, higher life satisfaction, better health perception, and fewer symptoms of depression (Arborelius & Bremberg, 2003). If women perceive they have more social support, they have more healthy behaviors and will be more likely to change unhealthy lifestyles (Croghan, 2005). Emotional, informational and tangible support provided by women's closer social network members (e.g., partner, mother, and friends) were suggested as an important factor in a healthy postpartum period (Rempel & Rempel, 2004).

Social support was a major motivating factor for adopting healthful eating habits and engaging in physical activity (Chang et al., 2008). In a study of postpartum women who had gestational diabetes, higher social support through help with child care and other responsibilities was associated with sufficient physical activity for mothers (Smith et al., 2005). Additionally, Keller et al. (2006) found that having friends with whom to exercise has a positive influence on the degree of physical activity for postpartum women.

On the other hand, lack of social support impacts emotional coping and appeared to be a significant predictor for postpartum depression during the postpartum period

(Smith & Segal, 2011). Postpartum women cite lack of social support as a barrier to both healthful eating and engaging in physical activity (Albright et al., 2009). Thornton et. al (2006) found that inadequate social support has an inverse relationship with weight status among low-income minority postpartum women. Thornton, et al., 2006). Postpartum blues and postpartum depression may manifest in the absence of adequate social support (Allison, Brouwer, Carter-Edwards, & Østbye, 2011).

Carron et al. (1996) examined the impact of social influences on physical activity behavior and found moderate to large effect sizes for social support from family and important others with exercise attitudes and behavior. It has been found that social support from family, friends, and spouses all predict physical activity behavior among women (Tamers et al., 2011).

In contrast, a cross-sectional study conducted in Mombasa Kenya with 429 mothers focusing on social support and social stress reported no association between depression and social support (Husain & et. al, 2016). Such discrepancy might be with cultural and socio-demographic aspects of the research participants.

The current finding is also in congruent with the Psychosocial theorists which propose the occurrence of stressful life events, such as the birth of an infant, marital problems, lack of social support associated with the social and family environment, loss of a loved one, marital or relationship difficulties, or serious financial or housing difficulties may precipitate the onset of depression (Abdollahi, Lye & Zarghami, 2016).

5.5. In relation to the hospital

Within the qualitative part of the study, several issues were raised including mother's satisfaction with the hospital services and the midwives' views and experiences with postpartum depression. To this connection, there are mothers who are happy and there are

also mothers who are not happy with the service and communication they had in the hospital. Interestingly, almost all the midwives felt that their perception and knowledge can make a difference. This view goes in line with the view of Jones, Creedy and Gamble (2011), who reported that emotional care provided by midwives may improve mothers' health and well-being and reduce stress, trauma, and depressive symptoms.

From our study participants, almost all of the participants did not have any training in screening and PPD related issues. The midwives said they never recall practical issues about PPD. They reflect they perhaps heard more about emotional distress when we talk about challenging behaviors of some mothers; specially, when actual behavioral disturbance occurs in the ward some of staff members guess it might be depression. But, practically speaking I have done nothing to count with PPD. We tend to concentrate on the delivery rather than PPD. But we need to have training and workshop on PPD. Nurses and midwives are expected to conduct regular medical screening for women in the postpartum period to detect depressive symptoms (Goodman, 2004).

The provision of antepartum and postpartum emotional care can be challenging and requires a good knowledge base for the provider to screen and assist distressed women. This study examined East Shewa Zone midwives' perceptions regarding postpartum depression. In this study we have seen midwives who said we are busy and who are focused on delivery. The reality on the ground seems to not be adjusted to conduct PPD screening and checking. They said mothers are so inattentive with the fact that they are having a newborn; and most of the time they are dubious to be interested in discussion to take time talking of their feelings and experiences following childbirth. Some midwives thought that for certain groups of women, such as for teenage mothers, raising the subject of PPD might be useful.

The study participant midwives said there is a need to treat postpartum mothers in a way that could support mothers to get relief. But for this to take place the research participant midwives unanimously reflected as they need to be trained still.

In the current study, midwives reflected that they never discussed PPD with mothers, almost all of them responded they never brought this subject to mothers. The professional midwives had differing views on issues of discussion with PPD mothers. Some shared that mothers' emotional distress and PPD whilst in hospital might be unsuitable. One midwife suggested it should not be made soon after delivery it needs time.

The majority of midwives considered discussions about PPD with the mothers soon after delivery is not appropriate. When they finish with delivery, the team will automatically discharge from hospital. Moreover, concerns were raised that midwives might not address PPD issues as it is not customary activity and they are not well trained on PPD. In addition, midwives also felt that women might feel uncomfortable discussing their personal feelings as they do not consider it a health problem.

The above points seems totally opposing with the views from western study literatures which recommends actions such as: Midwives are health care professionals who interact most with women during pregnancy and postpartum periods (Longsdon, Wisner, Billings & Shanahan, 2006). Also, midwives who have frequent contact with women during the perinatal period are well-positioned to provide screening and treatment for PPD (Segre, O'Hara, Arndt & Beck, 2010). As they meet with mothers for immunization, postpartum health controls and healthy baby checks, health professionals may have a chance for PPD screening. During these interactions nurses/midwives can detect risky women and patients with symptoms of PPD.

Our study participants reflected that they never used professional tools to diagnose PPD. But the literature emphasizes the importance of conducting medical screening by making use of appropriate tools and can guide the woman to professional assistance if needed (Longsdon, Wisner & Pinto-Foltz , 2006).

All of the midwife participants said they do not have training and this was a challenge for them, as they are not able to deal with PPD. This finding is congruent with the views of Keng (2005) who concluded that the biggest handicap of midwives is the lack of sufficient training concerning diagnosing, consulting, and guiding risky patients in the early diagnosis and management of PPD. If postpartum depression knowledge of nurses and midwives is insufficient, that may mislead them in identifying symptoms and PPD (Keng, 2005). On the other hand, midwives did express concern that women may be reluctant to discuss about their PPD experience as it is personal topic.

It was clear that the role of providing advice regarding PPD is not one that midwives feel they have been adequately trained for, and they feel it is out of the focus areas of their hospital. In addition, it is clear that midwives had not habitually raised the subject of depression. This implies mothers are the ones expected to raise the topic of depression for the midwives. But, in the current study neither of them is doing as recommended.

This study also showed that midwives find there to be many barriers to giving PPD advice; many of the mothers have previously not identified as a problem. Women not wishing to discuss depression as a problem was a common barrier; they are more concerned with advice relating to their baby or cannot imagine they may have a problem of PPD.

CHAPTER SIX

STUDY CONCLUSIONS, RECOMMENDATIONS AND IMPLICATIONS FOR SOCIAL WORK

6.1. Conclusion

The aim of the study was to determine the prevalence and associated factors of PPD a explain mothers' experience of emotional distress in their first postpartum year. The study also aims to determine midwives' view about PPD. In addition, the study explored midwives' perception of Postpartum Depression. A facility-based cross-sectional mixed method approach was employed. Five hundred postnatal mothers who gave birth in East Shewa Zone within the past one year participated in the quantitative part of the study and 17 research participants were involved in the qualitative part of the study i.e., 10 participants were PPD mothers and 7 were professional midwives. For the quantitative data, a simple random sampling (SRS) technique was used to identify the sampling units from the public health facilities based on their pre-determined patient flow rate.

The World Health Organization (WHO) acknowledged the problem of Postpartum depression (PPD) in both high income and low income countries. WHO took various initiatives in giving considerable attention to tackle the problem of mental health during the postpartum period. PPD is a serious mental health infirmity categorized by a prolonged period of emotional disturbance, occurring at a time of major life change and increased responsibilities in the care of a newborn infant. PPD impacts a mother's thinking, feeling or mood and may affect her ability to relate to others and function on a daily basis. Postpartum Depression (PPD) is a serious public health problem that leads to high maternal morbidity and mortality, enormously affecting the infant, family, and society.

In this study process we have witnessed postnatal depression as an important health problem and currently influences the well-being, quality, and security of mothers in the East

Shewa Zone. We have also found that maternal mental health may lead in to more serious problems than major depression occurring in normal life periods.

Findings from the study area revealed that there was high magnitude of PPD, i.e., 23.2 %; that means health professionals and social health workers needs to incorporate screening strategies for depression that occur after childbirth. Postpartum depression is higher among mothers under age 28 years. Domestic violence, unplanned pregnancy, baby with sleeping problems, health of the baby, lack of social support and partners' substance use were significantly associated with postpartum depression. This study found that midwives' lack of detailed PPD knowledge and heavy work load were possible contributing factors to PPD. If midwives are expected to be effective as providers of quality advice to mothers with PPD, then they deserve ongoing training and support so that they can better handle issues of PPD.

Midwives were found to be comfortable with their work with normal deliveries and newborn care. However, there are major gaps in the management of PPD. There is no training on PPD and screening tools. Lack of supportive supervision is one of the challenges and feedback was also very minimal. No mentorship programs in relation to PPD. There is high work load on the midwives most working more than 8 regular hours and have duty session every other day. Almost all of the midwives interviewed for this study complained about their low salary. Midwives' had low level of job satisfaction. As we go in further with such discussions with midwives, it is possible that midwives' dissatisfaction with this aspect of their work as an indirect contributing factor to mothers. In the study mothers said they were not happy with some of the midwives in the hospital.

In this circumstance, in our study revealed that midwives have no special training on PPD, they are dissatisfied with workload and salary issues, and few acknowledged

disrespecting mothers. Hence, this and other factors when they came together may be a contributing factor to PPD.

6.2. Implications for social workers

In sum, this study highlighted the magnitude, factors associated with PPD and mothers' emotional distress in East Shewa Zone, Ethiopia. In the study we found almost one person out of four to be a victim of PPD. This shows that social workers have a lot of work to do in this regard. As noted in the literature, in many western countries social workers are involved with mothers in a variety of settings. One of the concerns of social work is to address personal and family level difficulties. Hence, dealing with such problems is a priority area of social work especially in health and mental healthcare settings. In this setting social work is very important, because many of the PPD cases are directly linked with the very concern of social work, i.e., individuals, families, and communities.

To tackle this problem, social workers can develop community awareness on postpartum depression by educating mothers, families and community leaders. This can promote the professionalism of social workers, as well as treatment rates. Education is important also in light of the fact that many women experience relief when they are in therapy with a social worker who is knowledgeable about postpartum depression.

Social workers can make a difference through raising community awareness with the existing social support groups for women who suffer by postpartum depression. Social workers can also facilitate an accepting, supportive environment in which participants can share their experiences and assist each other in coping with their depression. Social workers could also be aware of the low rates of utilizing services and hence, can promote the importance of social support in a given community.

6.3. Implications for social work education

Social Work is a discipline involving the application of social theory and research methods to study and improve the lives of people, groups, and societies. It incorporates and uses other social sciences as a means to improve the human condition and positively change societies problem with multiple interventions. Social work education is more concerned with social problems, their causes, solutions and their human impacts. Social work education deals with individuals, families, groups, organizations and community which is meant for response to social problems. PPD is one of the social problems that hinders mothers and family from normal functioning. According to our study we have got about 23.3 % of prevalence of PPD. This result tells us as there exist social problems in Ethiopia in general and in the study area in particular.

PPD is not the responsibility of midwives or health professionals only, but goes beyond and it requires other professionals such as social workers. The social work education should promote the holistic dimensions of health, including the social and psychological components of health. This study offers insight about prevalence and factors associated with PPD with different circumstances. Results of the study could be used to increase the social work profession's accountability in relation to maternal health issues and can help to promote an interdisciplinary approach between social work and public health professionals to address the social determinants of maternal health.

In this study PPD was associated with the sociodemographic variables, social support, family related, domestic violence and etc. Hence, a Social work professional could support with a range of intervention; such as, raising awareness for mothers, families and spouse and on the other hand, Social work professionals can provide a worksheet to guide the social aspects of the problem in performing the early screening and

assessment part. After the assessment, social workers can then offer suggestions that are relevant to each individual mother's unique social needs.

The seasons after delivery is mostly stated as emotionally distressful period, in which mothers need to face several psychosocial challenges. Rendering our study participants, lack of social support, domestic violence, socio-demographic characteristics, lack of motherhood experience, babies' sleeping patterns, and etc. are factors of depression among postpartum mothers. Therefore, counseling programs should be an integral component of social work intervention to help mothers to cope with stressful life events. Social workers who are working at public health sectors could take the responsibility of encouraging mothers to seek counseling sections. Social workers should also advocate for the opening of a counseling department at health institutions where mothers visit for postnatal care. Curriculums of social work need to be revised with the scope that address mothers during pregnancy and postpartum periods to help minimizing of problems that leads to PPD.

6.4. Implications for health professionals

There are over two million live births each year in Ethiopia, (CSA, 2007). With such realities at hand; significant number of mothers are experiencing an episode of depression during the postpartum period. This makes depression the most common complication of childbearing (Stewart, 2003). A preventive approach through open communication and early screening could be employed by health professionals during monotonous encounters with postpartum mothers. Implementation of screening needs a good knowledge and understanding of PPD by the health professionals. In addition, interventions in a precautionary manner will improve mother's awareness and skills that protect them from PPD. This will enhance the mothers to be effective in ensuring her own health, and in turn the health of her baby and the whole family members.

As witnessed in the current study results, it would be useful for health professionals to take account of postpartum mother's different characteristics marked by socio-cultural status. Midwives need to increase their knowledge and understanding of the periods after delivery. Developing involvement approach or model by the professional midwives will more necessary. Such models could address the social context of maternal health. Particularly, training and guidance are required for maternal health care providers to integrate the early detecting and screening of postpartum depression among mothers.

Therefore, adequate devotion of the professional midwives should consider early screening and referring of PPD cases. In a country like Ethiopia, where the rate of postpartum depression is still high, there is a need to encourage postpartum mothers to participate in PPD screening. Nevertheless, because of the inadequacy of time, service and place in the current hospital systems of Ethiopia, PPD mothers are not able to get good knowledge and information about postpartum depression and other health problems and also their chance of discussion is very restricted. Therefore, Midwives should consider initiating PPD related awareness raising lessons during the last trimester of pregnancy. Moreover, the hospitals could offer various informational materials regarding PPD to be given to the mothers. Discussion in their routine perinatal and postnatal examination will help to design an open discussion schedule and assist in preventing the likely occurrence of PPD.

Furthermore, midwives need to encourage spouses and other family members to play an active role in providing care for postpartum mothers. Such action could play a significant role in activating social support within the family. The roles of the family and spouse, will minimize PPD as witnessed in our current study results i.e. where there is more social support and less postpartum depression and where there is low social support there is high PPD cases. Hence, midwives should be aware of the need of social support

and advise family members and spouse about the needed support for the postpartum mothers.

6.5. Implications for local policy development

The findings in our study implies the needs of mothers during their postpartum period. Implying the critical importance of developing policies and directives that guide the existing services towards more holistic approach. The health policy of Ethiopia that is more of providing maternal health care at health facilities ought to expand its outreach and scope beyond the aim of expanding access to maternal health care service. Necessary to include home grown solutions that decrease postpartum and related problems on mothers.

Home-grown directives and policies should be developed to improve the scope of practice of care providers. It is necessary if the policies and guideline come up with answers for key questions such as ‘who, what, when, where and how?’ of intervention. Hanlon (2012) has depicted very essential points on addressing ‘who, what, when, where and how in relation to the existing evidence base. Taking Hanlons model in to consideration, here are some of the components need to be aspired in Ethiopian maternal mental health policy:

In countries like Ethiopia there is shortage of specialist health professionals in health facilities. Therefore, it will be necessary to develop a working model to be implemented by shared responsibility to fight PPD, the shared responsibility could make a difference by involving, specialist health professionals with non-specialist health professionals, public health social workers who are well trained to deliver clearly defined elements of postpartum health care.

WHO’s guidelines for the treatment of PPD in LAMICs, involves, psychosocial models which are likely to be more appropriate for the majority of mothers, as taking antidepressant and medications are complicated for a breastfeeding mother. In addition,

willingness of postpartum mothers to take medication is also very minimal. Hence, policy makers need to provide a doable, well organized and contextualized psychosocial therapies to be designed by involving important stakeholders, health professionals and public health social workers.

In our field trip during data collection, we have seen the current sceneries with a high level of magnitude of depression among postnatal mothers. The flow of mothers to hospital for antenatal care makes the time appropriate to contact with health services for PPD mothers. Hence, policy makers can put directives to appropriately use this season for effective screening, testing and supporting mothers.

There are traditional beliefs and cultures during postpartum period including obligatory period of confinement. This perhaps affected help-seeking behavior of mothers. With the current practice psychological interventions are very minimal in health facilities of Ethiopia. Hence, it will be necessary if policy makers put directions to adopt an additional home-based intervention, to reach the unreached mothers. So that we can reduce impacts of PPD.

In addition, promote an interdisciplinary approach between public health and social work professionals. As far as the researcher's knowledge, Ministry of Health (MoH) of Ethiopia had trained thousands of community health extension workers and assigned to work closely with mothers at community level. Future directions should be needed to train and assign social workers who can work along with health extension workers to ensure the holistic needs of mothers within the community, so that they can prevent PPD as well.

Moreover, it will be necessary if the Oromia Regional Health Bureau and non-government organizations working in East Shewa Zone, tap the potential opportunities to strengthen their bonds with the community-based associations to raise enough awareness about PPD, to deliver training that impact the community and to assist mothers who

experiences emotional distress through assessing during their visit at postnatal care unit within the health facilities and in the community at large by using health extension workers and employing social workers.

The other implication of this study goes to social work and public health education curriculum designers. The social work educational curriculum in Ethiopia should consider the inclusiveness of public health and community health specializations as part of the undergraduate and postgraduate curriculum. The same is true for the public health education program. Addis Ababa University has already started a field of specialization in Community Health Social Work. Similar trends of training students in interdisciplinary fields should be encouraged to be adopted by other Ethiopia universities which are running social work and public health education programs.

Social work education should expand its spectrum to integrate Medical Social Work and Public Health Social Work field of specializations to better build knowledge and practice in the health settings. From literature we have learnt that social work and public health have many in common.

“Public health and social work professions vary in their practice methods, their intended goals are similar: to improve the health, welfare, and social well-being of society-at-large. Both professions share an ecologic perspective for problem-solving, and a systemic approach toward intervention that calls upon various sources to bring about change to complex social problems. Likewise, each profession shares a core value of “social justice” and an essential role of “service provision” targeted at enhancing the lives of the disadvantaged” (Keefe & Jurkowski, 2013, 5).

The circumstance that public health profession gives more emphasis to prevention while the social work wing focuses on intervention, the two professions stand in a plain to collaborate to each other. Many advances in health and social justice can be traced back to

the intersection of social work and public health. Both have common values and aspire to achieve similar goals such as: to eliminate health disparities; and to promote health, socioeconomic, and environmental justice. Public health social work profession can be trained and benefited from the rich traditions and complementary methods of these two fields to enhance and promote maternal health. Public health social workers can make the connection between prevention and intervention from the individual to the whole population.

6.6. Implications for future research

By due consideration of the insufficiency of studies by social workers with the area of maternal health in the study area, this study brings new descriptions to the existing knowledge base for the current study area. This study has produced empirically-supported evidence that can be useful to make statistical inferences and interpretative analysis about the relationship of PPD with the stated associated factors.

Possible future research areas could be generated based on the findings of this study. Methodologically, this study employed a mixed method study design. Tools used to collect quantitative data were developed in a western country 'context. The researcher framed the interview guides for the qualitative inquiry based on the conceptual framework of the quantitative study.

The postpartum depression was studied from the dimensions such as socio-demographic, social aspect, birth experience and midwives view only. This might be restricted participants not to share their opinions and experiences beyond the scope of the study framework. Thus, future qualitative research is recommended to uncover additional themes related to PPD.

This study was limited to East Shewa Zone. The study participants were mainly urban residents, belonged to Oromia region. The prevalence of PPD vary across different

social and demographic backgrounds. Thus, the study should be replicated using larger samples with postpartum mothers with diverse socio-cultural backgrounds as Ethiopia is home to people with diverse ethnic backgrounds. Other socio-demographic variables that were not entertained in the current study should be included in future studies. Future research could also investigate the advantages and disadvantages of traditional postpartum practices and whether there is evidence to support the activities undertaken have impact on PPD.

The findings of this study were compiled based on the views of postpartum mothers and the midwives in East Shewa Zone. Further research should be designed to accommodate the views of spouse and family members. Particularly, future studies are needed to understand husbands' and other close family members' voices on reducing of postpartum depression. There is a need to explore strategies employed by men to concern themselves with their wives' health.

6.7. Recommendations

6.7.1. Proactive-based screening for mothers at risk of PPD

The present study results have an important recommendation for all stakeholders involving in maternal health sectors. First of all, mothers who are at risk for developing postpartum depression need to open up for help and cooperate in early screenings so that their burden will be shared and minimized. Health care workers, midwives and physicians should be aware of the high prevalence of depressive symptoms during postpartum period. Hence, it

is necessary to take immediate action to end problems of postpartum depression with appropriate interventions to address the above-mentioned contributing factors. In addition, the identification and treatment of mothers with PPD at early stage might prevent further consequences of PPD. In sum, this study recommends the need for early assessment and intervention strategies which could be employed during postpartum period in order to minimize the impact of postpartum depression on the mother and her family

6.7.2. Integretion of mental health care service with existing maternal health care service

Active integration of mental health care service with the existing maternal health care service would reduce the impact of PPD on mothers. Interventions such as early detection and appropriate follow-up to reduce morbidity from postpartum mothers will benefit all mothers, specially to new mothers, mothers with lower socio-economic backgrounds, who feel unhappier about having their baby, and who have a history of emotional distress experience.

6.7.3. Further studies associated with PPD among mothers

More research is needed to further verify the magnitude of PPD, factors associated with PPD, and to address the strategies on how to address these problems through integrating mental health care within the general maternal health services. Additional studies are necessary to maternal mental health service development not only in East Shewa Zone but also other parts of the country as well.

6.7.4. Contineous in service training for health care workers dealing with PPD

In order to address the gap raised by Midwives it is necessary to provide in-service training on selected skills of importance such as screening of PPD. And address gaps of midwives on PPD and the screening tools with more comprehensive and effective supportive supervision and mentorship program. The researcher also recommend the

importance of raising salary scale to motivate and improve the level of payment and in-time payment of incentives such as the risk allowances and the duty allowances. Mental health care workers, midwives and physicians should be made aware of the postpartum depression, and the high-risk variables which predict postpartum depression.

6.7.5. Integration of social work intervention/model in dealing with PPD

Social Work Measures should be used as an intervention model in Ethiopian setting with counselling, either in the form of individual or group therapy, assistance to mothers who are suffering from depression. Depressed women could also be assisted through educational programs, learning strategies for the prevention of depression or ways to mitigate the impacts of Postpartum depression.

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Annexes

Annex I: Consent form and Information sheet 138

Introduction:

Here, I, the undersigned, a Ph.D student at Addis Ababa University College of Social Sciences, School of Social Work, I will be undertaking research on a topic entitled “Postpartum Depressions among Mothers who gave birth and attended public health facilities of East Shewa Zone, Ethiopia in 2019.

For this study, you will be selected as a participant and before getting your consent or permission of your participation, you need to know all necessary information related to the study. Thus, this information will be detailed accordingly:

- **Objective:** To determine the magnitude of postpartum depression and assess its associated factors among postpartum women and also aim to explore Midwives perception on Postpartum depression in East Shewa Hospitals and Health Centers, Ethiopia, 2019
- **Significance of the study:** The effects of postnatal depression (PPD) on mothers, their marital relationship, and their children make it an important condition to diagnose, treat and prevent. This paper will be useful for raising community awareness by exposing the findings. In addition, the present study will be published in reputable journals and disseminated to other research groups and the academic community in general. Further, the database generated from the study will be made available to other users for more in-depth analysis.
- **Methods:** Facility-based cross-sectional study will be conducted from July 2019-August among 500. Mothers who give birth in East Shewa Zone, Ethiopia.
- **Work plan:** This study planned to be completed by February 2020

➤ **Participants to be included:** Randomely sellected mothers who gave birth within the last one year at the health facilities of East Shewa Zone during the time of the study.

➤ **Confidentiality:** All information you give will be kept confidential and won't be accessible to any third party. Your name won't be registered on the question sheet so that you will not be identified.

➤ **Risks and Benefits of the study**

Risks: The study will be carried out simply by asking you, the already prepared and structured questions. The procedure doesn't bear any physical or psychological trauma. Furthermore, you will not be forced to respond to the information you do not know.

Benefits: For your participation in the study no payment will be granted or has no any special privilege to you. But, participating in the study and giving your information to questions asked will have great input in efforts to reduce postpartum depression in the future intervention.

➤ **Consent:** Your participation in the study will be totally based on your willingness. You have the right not to participate from the beginning, or stop any time after starting participation. You will not be forced to respond to the information you do not know.

➤ **Name of the Ph.D student and advisors:**

✓ Asnake Tesfaye Date: _____ Signature _____

Mobile : +251911315444 **E-mail:** asnake1984@gmail.com

✓ Professor Margaret Adamek

✓ Dr. Yanya Seid Mekiye

Annex II: Questionnaires

Structured Questionnaire English Version

Addis Ababa University

College of Social Sciences, School of Social Work

Consent form that certify the respondents agreement before starting

01. Name of the Health Facility _____

02. Questionnaire Identification Number _____

Introduction

Good morning , Good afternoon [According to its convenience]. My name is _____ . I am Nurse/Midwife professionally and now I am collecting data from postpartum mothers of reproductive age groups(15- 49 years) for the research being conducted to explore Postpartum Depressions among Mothers who gave birth and attending public health facilities of East Shewa Zone, Ethiopia. By Asnake Tesfaye. From Addis Ababa University, College of Social Sciences School of Social Work. You are selected to be one of the participants in the study by chance. The study will be conducted through interview. Your name and other personal identifiers will not be recorded on data collection format and the information that you give us will be kept confidential and will also be used for this study purpose alone. A code number will identify every participant and no names will used. If a report of the result is published, only summarized information of the total group will appear. The interview takes 30 minutes and is voluntary and you have the right to participate, or not to participate or to refuse at any time during the interview. You will not face any problem if you do not agree with the information to be asked. Your participation on this study helps to identify factors associated with PPD, prevalence of PPD and help to explore emotional distress experience of mothers in

Questionnaire on Postpartum Depressions among Mothers who gave birth and attended public health facilities of East Shewa Zone, Ethiopia.

Now I would like to begin by asking you a few questions about yourself and your family:

PART 1: SOCIO-DEMOGRAPHIC VARIABLES

Code	Questions	Response	Variables
101	Age (in years)	_____	SDV 01
102	Ethnicity (Which ethnic group do you belong?)	1. Oromo 2. Amhara 3. Gurage 4. Others(Specify) _____	SDV 02
103	Religion (Which religion do you follow?)	1. Orthodox 2. Muslim 3. Protestant 4. Catholic 5. Others (Specify)_____	SDV 03
104	What is your marital status currently?	1.Married 2. Single 3. Widowed 4. Divorced 5. Separated	SDV 04
105	Educational level (What is your educational level?)	1. Illiterate (Cannot read and write) 2. Literate (Able to read and write) 3. Primary school (grade 1-8) 4. Secondary school (grade 9-12)	SDV 05

		5. College diploma and above	
106	Educational level of husband (What is your husband educational level?)	1. Illiterate (Cannot read and write) 2. Literate (able to read and write) 3. Primary school 4. Secondary school 5. College diploma and above	SDV 06
107	Occupation (what is your occupation?) (What do you do for living?)	1. Government Employed 2. Daily laborer 3. House wife 4. Self employed 5. Student 6. Others (specify)_____	SDV 07
108	Total family size	_____ total family size	SDV 09
109	Place of residence	1. Rural 2. Urban	SDV 10
110	Household economy (family income per month) What is the approximate monthly household income from all the sources?	_____ETB/Month	SDV 11
111	Do you have radio	0. No 1. yes	SDV 12

112	Do you have TV	0. No 1. yes	SDV 113
113	Do you have Mobile phone	0. No 1. Yes	SDV 114
114	What is your husband's occupation?	1. Government Employed 2. Daily laborer 3. Self employed 4. Student 5. unemployed 6. Others (specify)_____	

PART 2: OBSTETRIC FACTORS

201	Have you had any pregnancy /other than/ before this child?	1. Yes 0. No If No skip to Q 210 →	OBF 01
202	What was your age at first pregnancy? (Age in years)	_____year 0. I don't remember /DK....99/	OBF 02
203	What order was your last birth?	1.First 2.Second 3.Third 4.Fourth and above	OBF 03
204	How many live births have you had?	1. Number of children alive: _____ 2. Number of children died: _____	OBF 04

	(Express in number)	3. Number of still birth: _____ 4. No response /DK....99/	
205	Have you ever-experienced abortion?	1. Yes 0. No	OBF 05
206	If yes, How many times? (Express in no)	1. _____ 0. No response/ do not know (DK)	OBF 06
207	Did you have stillbirth?	1. Yes 0. No	OBF 07
208	If yes how many times? Express in no	1. _____ 0. Do not know (DK)	OBF 08
209	What is the sex composition of your living children? (Express in no)	Male _____ Female _____ Total _____	OBF 09
210	What was your last pregnancy status?	1.Planned 2.Unplanned	OBF 10
211	Do you want any more children?	1. Yes 0. No	OBF 11
212	If yes for 211: How many? (Express in no)	Male _____ Female _____ Total _____	OBF 12
213	Who is Responsible for deciding on to have children	1. Wife 2. Husband 3. Joint discussion	OBF 13

214	Did you experience any complications before (during your pregnancy) or after your delivery? If no skip to 216	1.Yes 0. No	OBF 14
215	If your response is yes for Q214, what type of complication did you encountered?	<u>Lists</u> 1. <u>Yes</u> 0. <u>No</u> 1. Hypertension 2. Severe Bleeding 3. Blurred Vision 4 High Fever 5. Vaginal discharge 6. Loss of Consciousness 7. Severe Headache 8. Pain during urination 9. Severe weakness 10. Difficulty of breathing 11. Severe abdominal pain 12. Malaria infection 13.Others (specify).....	OBF 15
216	What was the mode of your last delivery?	1.Spontanoaus vaginal 2.Cesserian section 3.Others(specify)	OBF 16
217	What was your gestational age of your last pregnancy at	-----weeks -----months I don't know	OBF 17

	childbirth?		
--	-------------	--	--

PART 3: PEDIATRIC FACTORS

301	Sex of your baby	1.Male 2.Female	PD 01
302	Desired sex of your baby	1.Male 2.Female 3.Unspecified	PD 02
303	What was birth weight of your child?	-----grams 99. I don't know	PD 03
304	What did you start to feed your infant immediately after birth?	1.Breast feeding 2.Bottle feeding 3.Other (specify-----)	PD 04
305	If your answer is 1 for Q304, did you feed for completed 6 months?	1.Yes 0. No	PD 05
306	Did you experience difficulty to feed your baby?	1.yes 0. no	PD 06
307	Is there difficulty of sleeping of your baby?	1.yes 0. no	PD 07
308	Infant illness at any time after	1.yes	PD 08

	birth?	0. no	
309	Was there history of less than one-year death?	1.yes 0. no	PD 09

PART 4: MOTHERS' KNOWLEDGE ON PPD

K 401	Have you ever heard of PPD?	0. Yes 1. No 2. No response 3. I don't remember	MK01
K 402	If yes, what are Source of information?	1.Health Worker 2.Radio 3. News Papers 4. TV 5. Friends and families 6. Other specify	MK02
K 403	What type of information do you have on the feelings/ symptoms of PPD? (Read and tick all mentioned) 1. Sleepiness 2. Fear 3. Sadness 4. Dysphoria 5. Tearfulness	If yes=1 If No=0 ____ ____ ____ ____ ____ ____ ____ ____ ____ ____ ____ ____ ____ ____	MK

PART 5 OSLO 3-ITEM SOCIAL SUPPORT SCALE

The following 3 questions ask about how you experience your social relationships. The inquiry is about your immediate personal experience. Please circle the option that represents your experience.

501	How many people are so close to you that you can count on them if you have serious personal problems (choose one option)?	[1] None [2] 1 or 2 [3] 3-5 [4] more than 5	OSS1
502	How much concern do people show in what you are doing (choose one option)?	[5] A lot concern and interest [4] Some concern and interest [3] Uncertain [2] Little concern and interest [1] No concern and interest	OSS2
503	How easy is it to get practical help from neighbors if you should need it (choose one option)?	[5] Very easy [4] Easy [3] Possible [2] Difficult	OSS3

Part 6 FAMILY HEALTH RELATED FACTORS

Now, I am going to ask you about your family member health situation

601	Was there close family member death in the past year?	1.yes 0.no	FH01
602	Family member sickness currently?	1.yes 0.no	FH 02
603	Family history of mental illness?	1.yes 0.no	FH 03

PART 7: INTERPERSONAL RELATIONS

WAST: Even though couples get along well, there are also times of conflicts and disagreements. Couples get irritated with the other person for many reasons, or just have quarrels as a result of a bad mood or tired of some other activities. They may also use dissimilar habits of trying to settle their problems. I'm going to ask what you feel when you have an argument with your partner.

701	How do you and your partner work out arguments?	[0] no difficulty [1] some difficulty [2] great difficulty	DV1
702	In general, how do you describe your relationship?	[0] no tension [1] some tension [2] a lot of tension	DV2
703	How is your partner treating you and the kids?	[0] always well [1] well most of the time [2] neutral [3] not well most of the time	DV3
704	Do you feel safe in your current relationship?	[0] always safe [1] safe most of the time [2] neutral [3] not safe most of the time	DV4

705	Considering your current partners, friends, or any past partners or friends, are there anyone who is making you feel unsafe now?	[0] always safe [1] safe most of the time [2] neutral [3] not safe most of the time	DV5
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PART 8: PHQ-9

Now, I'm going to ask what you about your feeling in the past fourteen days (two weeks).

In the past two weeks:

Code	Question	Response	Variables
801	Little interest or pleasure in doing things	0), Not at all 1), Several days 2), Nearly half the days 3), Every day	PHQ9-01
802	Feeling down, depressed, or hopeless	0), Not at all 1), Several days 2), Nearly half the days 3), Every day	PHQ9-02
803	Trouble falling or staying asleep, or sleeping too much	0), Not at all 1), Several days 2), Nearly half the days 3). Every dav	PHQ9-03

Code	Question	Response	Variables
804	Feeling tired or having little energy	0), Not at all 1), Several days 2), Nearly half the days 3), Every day	PHQ9-04
805	Poor appetite or overeating	0), Not at all 1), Several days 2), Nearly half the days 3), Every day	PHQ9-05
806	Feeling bad about yourself - or that you are a failure or have let yourself or your family down	0), Not at all 1), Several days 2), Nearly half the days 3), Every day	PHQ9-06
807	Trouble concentrating on things, such as reading the newspaper or watching television	0), Not at all 1), Several days 2), Nearly half the days 3), Every day	PHQ9-07
808	Moving or speaking so slowly that other people could have noticed? Or the opposite - being so fidgety or restless that you have been moving	0), Not at all 1), Several days 2), Nearly half the days 3), Every day	PHQ9-08
809	Thoughts that you would be better off dead or of hurting yourself in some way	0), Not at all 1), Several days 2), Nearly half the days 3), Every day	PHQ9-09

Code	Question	Response	Variables
810	ADD PHQ SCORE FORM 801-809. Total Score _____ = ___ + ___ + ___)		

PART 9: HISTORY OF SUBSTANCE USE

In this question, you will inform us weather you use the following substances

901	Substance use history during pregnancy or after childbirth?	1.yes 2.no	HSU01
902	If yes, which substance?	1.ciggarrete 2.chat 3.Alcohol 4.others	HSU02
903	Is your husband using the above substances?	1.yes 2.no	HSU03
904	If yes, which substance?	1.ciggarrete 2.chat 3.Alcohol 4.others	HSU04

PART 10: Women Labor and delivery Experience

Now I am going to ask you questions about your experience during last labor and delivery.

Code	Question	Response	Variables
1001	Who attended your last birth	1. Nurse/Midwife/Health officer/doctor 2. Health Extension worker 3. TBA 4. Others	WLDE01
1003	How did you give birth?	1. By vaginal way 2. By emergency caesarean section 3. By scheduled caesarean section	WLDE02
1005	How long did you stay in the health facility after giving birth?	_____ hours 99) dont remember	WLDE03

Code	Question	Response	Variables
1006	When you left the health facility, did you feel happy?	1, Yes 0, No - I was not happy	WLDE04

Interview guide with PPD Mothers

Location: _____

Date: _____

Time started: _____ Time ended: _____

Participants Code: _____

Introduction of Facilitators and the IDI Process:

- ✓ The interviewer introduces her (him) self
- ✓ Explains the purpose of the IDI
- ✓ Use of tape-recorder; Everything said by participant will be kept confidential and anonymous; No right or wrong answers; Honest responses are highly appreciated

I. Mother's Perception on PPD and her experience of emotional distress

- Have you ever heard about PPD?
- How do you perceive PPD?

Now, let us talk more about some of the experience that you have

- Can you tell me about when you first started to feel distressed?
- What thoughts and feelings did you experience?
- How do you cope with your symptoms?

Probe

Participants will be further encouraged to express any issues that they felt are relevant to their experience of distress.

II. Wrap up

- ✚ Is there anything else that you would like to tell me about any of the issues that we have discussed so far?

Thank the participant for her time and contribution.

In-depth interviews (IDIs) guide with professional midwives who are working in the selected health facility.

Location: _____ Date: _____

Time started: _____ Time ended: _____

Participants Code: _____

Introduction of Facilitators and the IDI Process:

- ✓ The interviewer introduces her (him) self
- ✓ Explains the purpose of the IDI
- ✓ Use of tape-recorder; Everything said by participant will be kept confidential and anonymous; No right or wrong answers; Honest responses are highly appreciated

Hello. My name is I would like to talk to you about your perceptions as midwife // on PPD.

- Kindly introduce your self

- How do you perceive your current work as midwives?
- Any other aspect of your work (socioeconomic and professional aspect)
- How do you view Postpartum Depression (PPD) with your current engagement as midwives?
- Have you ever informed postnatal mothers about PPD in addition to other postnatal care?
- If so, in what way?
- Did postnatal mothers tell you about her mood disorders?
How?
- Some research revealed that knowledge of midwives on PPD can be a contributing factor for PPD. What do you think about this view?
- Do you think views and perceptions of a professional midwives can influence PPD?
How?

Is there anything else that you would like to add on the above issues? (Feel free to talk)

Thank you for your kind cooperation.

Assurance of principal investigator

I, undersigned here agrees to accept responsibility for scientific ethical and technical conduct of the research project and for provision of required progress reports as per terms and the condition of the AAU SSW PG Program in effect at the time of the grant is forwarded as the result of this application.

Principal investigator: Asnake Tesfaye

Date. _____

Signature

Amharic version Questioneer

የመረጃ ቅጽ

መግቢያ

እኔ ከታች ፊርማዬ የተቀመጠው በአዲስ አበባ ዩ.ኒቨርሲቲ ሶሻል ሳይንስ ኮሌጅ፣ ሶሻል ወርክ ት/ት ቤት የፒ ኤች ዲ ተማሪ ስሆን በቅርብ ጊዜ ከወለዱ እናቶች ላይ “Postpartum Depressions among Mothers who gave birth and attended public health facilities of East Shewa Zone, Ethiopia in 2019” በሚል ሀሳብ ስለ ድባቴ ምክኒያትና የክስተት መጠን ጥናትና ምርምር በማድረግ ላይ እገኛለሁ።

እርስዎም ደግሞ በዚህ የጥናትና ምርምር እንዲሳተፉ ተጋብዘዋል። ተሳትፎዎን በፍላጎት ላይ ብቻ የተመሰረተ መሆን አለበት፣ በጥናቱ ላለመሳተፍ ከመረጡ የሚያስከትለው ችግር የለም። በጥናቱ ለመሳተፍ ከመወሰንዎ በፊት ጥናቱ ለምን እንደሚሰራና የእርስዎ ተሳትፎ ምን እንደሚያካትት መረዳቱ አስፈላጊ ነው። እባክዎ ከዚህ በታች የተሰጡ መረጃዎችን በጥንቃቄ ለማንበብ ጊዜ ይውሰዱ ከፈለጉም ከሌሎች ጋር ይወያዩበት። ግልጽ ያልሆነ ነገር ካለና የበለጠ መረጃ ከፈለጉ ሊጠይቁን ይችላሉ።

የምርምሩ አላማ፡ጥናቱ በቅርብ ጊዜ የወለዱ እናቶችን ገወለዱ በኋላ ስለሚያጋጥማቸው የጤና ሁኔታና ከእነዚህ ጋር የተያያዙ የአእምሮ ህመምን ይመለከታል። ጥናቱ በወለዱ እናቶች ላይ ስለሚከሰተው የአእምሮ ህመም ሲሆን የአእምሮ ህመሙ ላይ በምን ያህል እናቶች ላይ እንደተከሰተና ስለምክኒያቱም ያካትታል።

በጥናቱ እንዲሳተፉ የሚመረጡት እነ ማን ናቸው ከላይ በተጠቀሰው ርእስ ላይ በዋነኝነት መረጃ ሊሰጡን የሚችሉት የወለዱ እናቶች ናቸው እና የጠና ባለሙያዎችም ይካተታሉ።

በጥናቱ ለመሳተፍ ቢስማሙ ምን ይደረጋል። ከመረጃ ሰብሳቢዎቻችን አንዱ ልክ እንደዚሁ ለህክምናና ለክትባት እናቶችን በመጠቀም ጤና ተቋም በመገኘት አንዳንድ ጥያቄዎች ይቀርብሎታል መጠይቆቹ እናቶች እርስ ስላሉት ማህበራዊ ድጋፍ እና ስለሚሰማዎት ስሜት እንዲሁም ጠቅለል ያሉ መረጃዎችን ይጠይቁታል። ከወሊድ ጋር ተያይዞ የሚከሰቱ የአእምሮና የጤና ችግሮችን እና እናቶች የሚያስፈልጋቸውን ህክምና እንዳያገኙ ስለሚያደርጓቸው ጉዳዮች ይጠየቃሉ። ቃለ መጠይቁ ወደ ግማሽ ሰአት ገደማ ይወስዳል።

በጥናቱ መሳተፍ ምን ጉዳት ይኖረዋል? በቃለመጠይቁ መሳተፍ የሚያስከትለው ችግር የለም። እርስዎ በጥያቄዎቹ ደስተኛ ካልሆኑ መልስ ይሰጡ ዘንድ አይገደዱም። ቃለ መጠይቁም ዕዚሁ ላይ መቆም ይችላል።፤ የሚገኘው መረጃ በኢትዮጵያም ሆነ በሌሎች ሀገሮች ያለውን የአእምሮ ጤና አገልግሎት እንደሚያሻሽለው ተስፋ እናደረጋለን።

በሰጡን ቅድመ መረጃ ምን እናደርግበታለን? ጥያቄዎቹ የእርስዎን ስም አያካትቱም። ስለዚህ ከፕሮጀክቱ አስተባባሪ አቶ አስናቀ ተስፋዬ እና የፕሮጀክቱ የመረጃ ሰራተኞች ውጪ ማንም ሌላ ሰው መረጃው የእርስዎ ስለመሆኑ የሚያውቀው አይኖርም ። የመረጃ ሰነዶቹን በሚቆለፉ መሳቢያ / መደርደርያ / እናስቀምጣለን።

ዋና አጥኚዎች የጥናቱን አስተባባሪ አቶ አስናቀ ተስፋዬ ሲሆን ሊያገኙ ከፈለጉ ሞባይል ቁጥር 0911 31 54 44 በመጠቀም በስራ ሰአት በማንኛውም ቀን ሊደውሉልን ይችላሉ። በጥናቱ መሳተፍ የእርስዎ ውሳኔ ጉዳይ ይሆናል። በጥናቱ ለመሳተፍ ከወሰኑ በማንኛውም ሰአት ምክንያት መስጠት ሳይጠበቅብዎት በነጻነት ተሳትፎውን ማቋረጥ ይችላሉ። ይህ ጥናት በማንኛውም መንገድ

እንክብካቤ ከሚመጡ እናቶች መረጃን በመሰብሰብ ከወሊድ በኋላ ስለሚከሰቱ ድባቱ/የመጨነቅ ስሜት መጠኑንና ምክኒያቱን ምንነት በዝርዝር የሚያካትት ጥናት ነው። ይህ ጥናት የሚጠናወደው በአዲስ አበባ ዩኒቨርሲቲ፣ ሶሻል ሳይንስ ኮሌጅ፣ ሶሻል ወርክ ት/ት ቤት የፒ ኤች ዲ ተማሪ በሆኑት በአቶ አስናቀ ተስፋዬ ነው። እርስዎ ለዚህ ጥናት ተሳታፊ እንዲሆኑ የተመረጡት በአጋጣሚ ነው / እንደ ዕድል ነው/። ጥናቱ የሚካሄደው በቃለ መጠይቅ ነው። ስሞትና የግል መገለጫዎች በዚህ መጠይቅ ጥናት ውስጥ አይካተትም። የሰጡን መረጃ በሚስጥር የምንይዝ ሲሆን ለዚህ ጥናት አላማ ብቻ ይወላል። የምንጠቀምበት መለያ ኮድ ተሳታፊውን በጥናቱ መካተቱን ይገልጻል ምንም አይነት ገለጭ ስም አንጠቀምም። ይህ ጥናት አልቆ ከታተመ የጥናቱ ዋና ግኝት ብቻ የሚወጣ ይሆናል።ይህ ቃለ መጠይቅ እስከ 30 ደቂቃ ሊወስድ ይችላል ተሳትፎዎት በፍላጎት ላይ ብቻ የተመሰረተ መሆን አለበት፣ በጥናቱ ላለመሳተፍ ከመረጡ የሚያስከትለው ችግር የለም፣ በመጠይቁ መሳተፍ ካልፈገገ በማንኛውም ሰዓት ከጥናቱ ማቋረጥ ይችላሉ። በዚህ ጥናት ላይ በሚያደርጉት ተሳትፎ ስለድባቱ ክስተት መንነትና ምክኒያት እንዲሁም የእናቶችን የመደባበት ሁኔታን በማጥናት ለመፍትሔ የሚያመሩ የትናት ወጤቶችን ለመጠቀም ይረዳል። በዚህ ጥናት ላይ ማንኛውም ጠያቂ ካሎት እኔን መጠየቅ ይችላሉ ወይም የዚህ ጥናት ዋና ተመራማሪ አቶ አስናቀ ተስፋዬን ከዚህ በታች በተጠቀሰው አድራሻ ያግኛቸው

(+251911315444 E-mail: asnake1984@gmail.com).

- በዚህ ጥናት ላ ለመሳተፍ ፈቃደኛ ኖት
 - 1) አዎን
 - 2) አይደለሁም
- የቃለመጠይቅ አቅራቢው ከጥናቱ ተሳታፊዎ ስምምነት ቃላቸውን ሰጥተዋል

ስም..... ፊርማ

- ወጤት
 1. ሙሉ በሙሉ ተሰብስቧል
 2. ፈቃደኛ አልሆኑም
 3. በከፊል ተጠናቋል

4. ሌላ ሁኔታ ካለ ይግለጹ

- ያረጋገጠዉ
- ስም ፊርማ ቀን

ክፍል አንድ

የእናቶች ግላዊ መረጃ

አሁን ስለ እርስዎና ቤተሰብዎ አጠቃላይ ሁናቴ እጠይቆታለሁ

S.No.	መጠይቅ	ምላሽ	Remark
101	እድሜ	_____ (ዓመት)	SDV01
102	ብሔረሰብ	5. ኦሮሞ 6. አማራ 7. ጉራጌ 8. ሌላ ከሆነ ይጥቀሱ _____	SDV02
103	እምነት (የምን ሀይማኖት ተከታይ ናት?)	1. ኦርቶዶክስ ክርስቲያን 2. እስልምና እምነት ተከታይ 3. የፕሮቴስታንቲዝም ክርስቲያን 4. ካቶሊክ ክርስቲያን	SDV03

		5. ሌላ ከሆነ ይጥቀሱ_____	
104	በአሁን ሰዓት የጋብቻ ሁኔታዎ?	1. ያገባች 2. ለብቻዎ ምትኖር 3. ባለቤትዎ በህይወት የሌለ 4. የተፋታች	SDV04
105	የትምህርት ደረጃዎ ?	1. አልተማርኩም(ማንበብና መጻፍ አልችልም) 2. ተምራያለሁ(ማንበብና መጻፍ ችላለሁ) 3. የመጀመሪያ ደረጃ ት/ት (1-8) 4. የሁለተኛ ደረጃ ት/ት (9-12) 5. የኮሌጅ ዲፕሎማና ከዛ በላይ	SDV05
106	የባለቤትዎ የትምህርት ደረጃ ?	1. አልተማረም(ማንበብና መጻፍ አይችልም) 2. ተምሯል (ማንበብና መጻፍ ይችላል) 3. የመጀመሪያ ደረጃ ት/ት (1-8) 4. የሁለተኛ ደረጃ ት/ት (9-12) 5. የኮሌጅ ዲፕሎማና ከዛ በላይ	SDV06
107	የስራ ሁኔታ ?	7. የመንግስት ስራ 8. የቀን ስራ 9. የቤት እመቤት 10. ነጋዴ 11. ተማሪ 12. ሌላ ከሆነ ይጥቀሱ_____	SDV07
108	የቤተሰብ ብዛት	በድምሩ_____	SDV08
109	የመኖሪያ ስፍራ	1. ገጠር	SDV09

		2. ከተማ	
110	የቤተሰባችሁ ምጣኔ ሀብት (የቤተሰቡ ወርሀዊ ገቢ) ከየትኛውም ምንጭ ምን ክል ገቢ በወር ያገኛሉ ?	_____ ብር በወር	SDV10
111	ራዲዮ አሎት	1. አዎ 0. የለም	SDV11
112	ቴሌቪዥን አሎት	1. አዎ 0. የለም	SDV12
113	ሞባይል ስልክ አሎት	1. አዎ 0. የለም	SDV13
114	የባለቤትዎ ስራ ምንድን ነው ?	1. የመንግስት ስራ 2. የቀን ስራ 3. የቤት እመቤት 4. ነጋዴ 5. ተማሪ 6. ሌላ ከሆነ ይጥቀሱ_____	SDV14

ክፍል ሁለት

ከስነተዋልዶ ጋር የተያያዙ መጠይቆች

201	ከዚህ ህጻን በፊት ሌላ ልጅ አሎት	1. አዎ 0. የለም ከሌለ ወደ 10ኛ ጥያቄ ይለፉ	OBF 01
202	በመጀመሪያዎ የእርግዝናዎ ጊዜ እድሜዎ ስንት ነበርዓመት አላስታወስም /ደክ....99/	OBF 02

203	አሁን በመጨረሻ የወለዱት ስንተኛ ልጅ ነው	1. አንደኛ 2. ሁለተኛ 3. ሶስተኛ 4. አራተኛ	OBF 03
204	በህይወት ያሉ ስንት ልጆች አሉት	1. በህይወት ያሉ..... 2. በህይወት የሌሉ 3. ሰይወለዱ በእርግዝና የተጨናገፉ 4. ምላሽ አልተሰጠም /ደክ .../	OBF 04
205	ማሰረድ አጋጥሞት ያወቃል	1. አዎ 0. አይ	OBF 05
206	ለ205 አዎን ከሆነ ለምን ያክል ግዜ	1. 0. መልስ የለም	OBF 06
207	በህይወት የሌለ ልጅ ወልደው ያወቃሉ	1. አዎ 0. አይ	OBF 07
208	207፣ አዎን ከሆነ ለምን ያክል ግዜ	1..... 0.....አላስታወስም (ደክ...99)	OBF 08
209	አሁን ያሉ የልጆቻዎ ጾታ ምን ምን ያካተተ ነው	ሴት..... ወንድ በድምሩ.....	OBF 09
210	የመጨረሻ እርግዝናዎ ሁኔታ እንዴት ነበር	1. የታቀደ 2. ያልታቀደ	OBF 10
211	ሌላ ተጨማሪ ልጅ መወለድ ይፈልጋሉ	1. አዎ 0. አይ	OBF 11
212	211፣ አዎ ከሆነ ስንት ልጅ	ሴት.....	OBF

	ይፈልጋሉ	ወንድ በድምሩ.....	12
213	ልጅ መወለድን በተመለከተ ወሳኔ የሚያስተላልፈው ማነወ.	4. ሚስት 5. ባል 6. የጋራ ወይይት ነው	OBF 13
214	ከመለድዎ በፊት (በእርግዝናዎ ወቅት) ወይም ከመወለድዎ በኋላ ያጋጠሞት የጤና መታወክ እክል ነበር	1. አዎ 0. አይ	OBF 14
215	ለ214 አዎን ከሆነ፡ ምን አይነት የጤና መታወክ ነበር ያጋጠሞት	1. አዎ 0. አይ 1. የደም ብዛት 2. ከባድ የደም መፍሰስ 3. የደበዘዘ እይታ 4. ከባድ ያለ ትኩሳት 5. ለረጅም ጊዜ በብልትዎ ፈሳሽ መፍሰስ 6. ራስን መሳት 7. ከባድ ራስ ምታት 8. ሽንት በመሸናት ጊዜ ህመም 9. የድካም ስሜት 10. የመተንፈስ ችግር 11. ከባድ የአንጅት ህመም 	OBF 15

		12.የወባ በሽታ 13.ሌላ ካለ ይጥቀሱ	
216	ልጅዎን የወለዱበት ሁኔታ ምን አይነት ነበር	1. በተፈጥሮዊ አወላለድ 2. በቀዶ ጥገና /አፕራክስ/ 3. ሌላ ካለ ይጥቀሱ	OBF 16
217	ምን ያህል ግዜዎ ነበር ሲዎልዱ /የስንት ወር እርጉዝ ነበሩ ሲወልዱ/ ሳምንት ወር አላስታወስም	OBF 17

ክፍል ሶስት ከህጻናት ጋር የተያያዙ ጉዳዮች

301	የልጅዎ ጾታ ምንድን ነው	1. ወንድ 2. ሴት	PD 01
302	እርስዎ የሚሹት የልጅ ጾታ ምንድን ነው	1. ወንድ 2. ሴት 3 አልተጠቀሰም	PD 02
303	ልጅዎ በተወለደበት/ችበት ወቅት ክብደቱ/ቷ ምን ያህል ነበርኪ.ግ 99. አላወቅም	PD 03
304	ልጅዎ እንደተወለደ ምን መጥባት ጀመረ/ች	1. ጡት መጥባት 2. ጡጦ መጥባት 3. ሌላ ካለ ይጥቀሱ	PD 04
305	የመጀመሪያዉ መልሳቸዉ ከሆነ፡ ስድስት ወር በሙሉ ጡት ብቻ	1. አዎ 0. አይ	PD 05

	አጠባቢ		
306	ልጅን በመመገብ ወቅት አስቸጋሪ ነገር ነበር	1. አዎ	0. አይ
307	ልጅዎ የመተኛት ችግር አለባት/በት	1. አዎ	0. አይ
308	ህጻንዎ/ኩ የታመመበት ወቅት ነበር	1. አዎ	0. አይ
309	ከዚህ በፊት ከአንድ አመት በታች የሆነ ልጅ አርፎብዎት ያወቃል	1. አዎ	0. አይ

ክፍል 4: የእናቶች በድባቱ/መጫጫን/ ላይ ያለቸው እውቀት

K 401	ስለ ድባቱ ሰምተዉ ያወቃሉ	0. አዎ 1. አይ 2. መልስ የለም 3. አላስታወስም	MK01
K 402	ሰምተዉ ከነበረ የመረጃ ክምን ምንጩ አገኙት	1. ክጤና ባለሙያ 2. ራዮ 3. ጋዜጣ 4. ቲቪ 5. ከጉዋደኛ ና ቤተሰብ 6. ሌላ ካለ ይጥቀሱ	MK02

K 403	ምን አይነት መረጃ ነበሮት በተለይ በሚሰማዎት ስሜት ላይ	አዎ	0. አይ_____	MK
	1. የእንቅልፍ መብዛት/መዛባት	_____	_____	
	2. ፍርሃት	_____	_____	
	3. ንዴት	_____	_____	
	4. ደስታ ማጣት/ክብድ ማለት	_____	_____	
	5. እንባ መተናነቅ/ ሆደ ባሻነት	_____	_____	

ክፍል 5 የኦስሎ 3-አይተም ሶሻል ስፖርት እስኬል

የሚከተሉት 3 ጥያቄዎች ደግሞ ከቤተሰብዎም ሆነ ከጎሮቤትዎ ጋር ያለዎትን ማህበራዊ ግንኙነት በተመለከተ ይሆናል። እባክዎ ለጥያቄዎቹ ከተሰጡት ምርጫዎች የእርስዎን ማህበራዊ ሁኔታ የሚመለከተውን ይምረጡ።

501	በህይወትዎ ውስጥ የቅርብ የሆኑ፤ ችግርዎትንና ደስታዎትን የሚካፈሉ ስንት ሰዎች አሉ;	[1] ማንም [3] ከ 3-5	[2] 1 ወይም 2 [4] ከ5 በላይ	OSS1
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502	<p>ሌሎች ሰዎች እርስዎ በሚያደርጓቸው ነገሮች ላይ ምን ያህል የሚጨነቁልዎትና የሚያስቡልዎት ይመስልዎታል;</p>	<p>[5] በጣም ይጨነቁልኛል /ያስቡልኛል [4] በመጠኑ ይጨነቁልኛል/ያስቡልኛል [3] እርግጠኛ መሆን አልችልም [2] ብዙም አያስቡልኝም [1] ጨርሶ አያስቡልኝም</p>	OSS2
503	<p>ከጎረቤትዎ እርዳታ ባስፈለገዎ ጊዜ እገዛ ማግኘት ምን ያህል ቀላል ነው?</p>	<p>[5] በጣም ቀላል [4] ቀላል [3] ቀላል ባይሆንም ርዳታ ማግኘት እችላለሁ [2] ከባድ ነው</p>	OSS3

ክፍል 6 የቤተሰብ ጤና ሁኔታን በተመለከተ

አሁን ስለ እርስዎ ቤተሰብ የጤና ሁኔታን በተመለከተ እጠይቅዎታለሁ

601	<p>በዚህ አመት ውስጥ ከእርስዎ ቤተሰብ በሞት የተለየ ይኖር ይሆን?</p>	1. አዎ	0. አይ	FH01
602	<p>ከቤተሰብዎ አባል የታመመ አለን?</p>	1. አዎ	0. አይ	FH 02
603	<p>በቤተሰብዎ ታሪክ ውስጥ የአዕምሮ ህመምትኛ ነበርን/አለን?</p>	1. አዎ	0. አይ	FH 03

ክፍል 7: ስለማህበራዊ ግንኙነት

በትዳር ምንም ያህል መዋደድ/መፋቀር ቢኖርም አልፎ አልፎ ግን አለመግባባት

ሊከሰት ይችላል። ስለሆነም እርስዎ ከባለቤትዎ ጋር ባልተስማሙ ጊዜ

የሚሰማዎትን ስሜት ከዚህ በታች እጠይቅዎታለሁ።

701	<p>ከባለቤትዎ ጋር ባልተስማሙ ጊዜ ችግሩን ለመፍታት ምን ያህል ያስቸግርዎታል? [0] ምንም ችግር የለም [1] የተወሰነ ችግር አለ [2] በጣም</p>	<p>[0] ምንም ችግር የለም [1] የተወሰነ ችግር አለ [2] በጣም</p>	DV1
702	<p>በአጠቃላይ ከባለቤትዎ ጋር ያለዎት ቤተሰባዊ/ማህበራዊ/ግንኙነት መሻከር እርስዎን ምን ያህል ያስጨንቅዎታል?</p>	<p>[0] ምንም አያስጨንቅም [1] የተወሰነ ያስጨንቃል [2] በጣም ያስጨንቃል</p>	DV2
703	<p>ባለቤትዎ ለእርስዎና ለልጆችዎ የሚያደርጉትን እንክብካቤ እንዴት ይገልጹታል?</p>	<p>[0] ሁልጊዜ ጥሩ ነው [1] ብዙ ጊዜ ጥሩ ነው [2] ጥሩ ወይም መጥፎ የሚባል አይደለም [3] ብዙ ጊዜ ጥሩ አይደለም [4] በፍጹም ጥሩ አይደለም</p>	DV3
704	<p>አሁን ከባለቤትዎ ጋር ባለዎት ቤተሰባዊ/ማህበራዊ/ ግንኙነት ምን ያህል ሥጋት ይሰማዎታል?</p>	<p>[0] ሁልጊዜ ከሥጋት ነፃ ነኝ [1] ብዙ ጊዜ ከሥጋት ነፃ ነኝ [2] አስጊ ነው ወይም አይደለም ለማለት ያስቸግራል [3] ብዙ ጊዜ የሰጋኛል</p>	DV4

705	ከባለቤትዎ ወይም ሌሎች የቤተሰብ አባላት ጋር ያለዎት ማህበራዊ ግንኙነት ምን ያህል ያሰጋዎታል?	[0] ሁልጊዜ ከሥጋት ነፃ ነኝ [1] ብዙ ጊዜ ከሥጋት ነፃ ነኝ [2] አስጊ ነው ወይም አይደለም ለማለት ያስቸግራል [3] ብዙ ጊዜ የሰጋኛል [4] ሁልጊዜ ያሰጋኛል	DV5
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ክፍል ስምንት : PHQ-9 የድባቴ መለኪያ

መመሪያ: የሚከተሉት ዓረፍተ-ነገሮች እርስዎ ባለፉት ሁለት ሳምንታት ውስጥ የተሰማዎን ስሜት የሚዳስሱ ሲሆን በሰንጠረዥ የተቀመጡትን ዓረፍተ-ነገሮች መሰረት በማድረግ የእኔን ስሜት ይገልጻል ብለው የሚያምኑትን ዓረፍተ-ነገር ስር በሚገኘው ቁጥር ላይ የ "X" ምልክትን ያስቀምጡ።

Code	Question	Response	Variables
801	ባለፉት ሁለት ሳምንታት ውስጥ የእለት ተእለት ተግባርዎን ለማከናወን (ለመስራት) ያለዎት ተነሳሽነት ለምን ያህል ቀን ቀንሶ ነበር	0. በፍፁም 1. ከ7ቀናት ያነሰ 2. ከ7ቀናት በላይ 3. ከሞላጎደል በየቀኑ	PHQ901
802	ባለፉት ሁለት ሳምንታት ውስጥ የመከፋት፣ የመደበኛ ወይም ተስፋ የመቁረጥ ስሜት ለምን ያህል ቀን ይሰማዎ ነበር;	0. በፍፁም 1. ከ7ቀናት ያነሰ 2. ከ7ቀናት በላይ 3. ከሞላጎደል በየቀኑ	PHQ902

Code	Question	Response	Variables
803	ባለፉት ሁለት ሳምንታት ውስጥ ለምን ያህል ቀን እንቅልፍ አልወስድም ብሎ ወይም በደንብ መተኛት አቅቶዎት ወይም እንቅልፍ እየበዛብዎት ይቸገሩ ነበር;	0, በፍፁም 1, ከ7ቀናት ያነሰ 2. ከ7ቀናት በላይ 3. ከሞላጎደል በየቀኑ	PHQ903
804	ባለፉት ሁለት ሳምንታት ውስጥ ለምን ያህል ቀን የድካም ወይም	0, ፍፁም 1, ከ7ቀናት ያነሰ 2. ከ7ቀናት በላይ 3. ከሞላጎደል በየቀኑ	PHQ904
805	ባለፉት ሁለት ሳምንታት ውስጥ ለምን ያህል ቀን የምግብ ብፍላጎት ወይም ከተለመደው በላይ ጨምሮ ወይም ቀንሶብዎት ነበር;	0, በፍፁም 1, ከ7ቀናት ያነሰ 2. ከ7ቀናት በላይ 3. ከሞላጎደል በየቀኑ	PHQ905
806	ባለፉት ሁለት ሳምንታት ውስጥ ለምን ያህል ቀን ራስዎን የመጥላት ወይም ዋጋ የለኝም የማለት ወይም ራሴንም ሆነ ቤተሰቤን አሳዝኛለሁ/አሳፍሬያለሁ/ የሚል ስሜት ተሰምቶዎት ነበር;	0, በፍፁም 1, ከ7ቀናት ያነሰ 2. ከ7ቀናት በላይ 3. ከሞላጎደል በየቀኑ	PHQ906
807	ባለፉት ሁለት ሳምንታት ውስጥ ለምን ያህል ቀን በሚሰሩት ስራ ላይ ሃሳብዎን መሰብሰብ/ልብ የማለት ችግር	0, በፍፁም 1, ከ7ቀናት ያነሰ 2. ከ7ቀናት በላይ 3. ከሞላጎደል በየቀኑ	PHQ907

Code	Question	Response	Variables
808	ባለፉት ሁለት ሳምንታት ውስጥ ለምን ያህል ቀን ለሌሎች ሰዎች እስከሚታወቅ ድረስ በእንቅስቃሴዎ ወይም በንግግርዎ በጣም ቀስ ብለዉ ወይም በተቃራኒዉ	0, በፍፁም 2. ከ7ቀናት-በላይ 1, ከ7ቀናት-ያነሰ 3. ከሞላጎደል በየቀኑ	PHQ908
809	ባለፉት ሁለት ሳምንታት ውስጥ ብጥት ይሻላል ብለዉ አስበዉ ወይም ራስዎን በሆነ መንገድ ሊጎዱ አስበዉ ነበር;	0, በፍፁም 2. ከ7ቀናት-በላይ 1, ከ7ቀናት-ያነሰ 3. ከሞላጎደል በየቀኑ	PHQ909

ክፍል ዘጠኝ: ስለ አልኮል መጠጦች

በዚህ መጠይቅ ውስጥ የተጠቀሱትን አይነት ነገሮች ከተጠቀሙ ይነግሩናል

901	በእርግዝናዎ ወቅት ወይም ከወለዱ በኋላ መጠጥ ወይም እንደጫትና ሲጋራ ይጠቀሙ ነበር ወይ ?	1, አዎ 0. አይ	HSU01
902	አዎን ካሉ ከተጠቀሱት ውስጥ የትኛውን አይነት ይጠቀሙ ነበር ?	1. ሲጋራ 2. ጫት 3. የአልኮል መጠጥ 4. ሌላ ካለ ይጥቀሱ	HSU02
903	ባለቤትዎ ከላይ የተጠቀሱትን ይጠቀማሉ?	1, አዎ 0. አይ	HSU03

904	አዎን ካሉ ከተጠቀሱት ውስጥ የትኛውን አይነት ይጠቀሙ ነበር ?	1. ሲጋራ 2. ጫት 3. የአልኮል መጠጥ 4. ሌላ ካለ ይጥቀሱ	HSU04
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ክፍል 10: የእናቶች የወሊድ ሁኔታን በተመለከተ

አሁን ደግሞ የእርስዎን የወሊድ ሁኔታን በተመለከተ እጠይቃለሁ

Code	Question	Response	Variables
1001	በወሊድ ሰዓት ያዋለድዎት ማን ነበር ?	5. ነርስ/ ሚድዋይና/ ዶክተር/ ና መኮንን 6. ሌላ ካለ ይጥቀሱ 7. አላውቅም	LDE01
1002	አወላለድዎ እንዴት ነበር?	4. በተፈጥሮ የአወላለድ ስርዓት 5. በድንገተኛ የቀዶ ህክምና 6. አስቀድሞ ቀጠሮ በተያዘለት ቀዶ ህክምና	LDE02
1003	ከወለዱ በኋላ በህክምና ማዕከሉ ለምን ያህል ጊዜ/ሰዓት ቆየ?	_____ ሰዓት/.....ቀን 99) አላስታወስም	LDE03

Code	Question	Response	Variables
1004	የህክምና አገልግሎት ጨርሰው ሲወጡ ደስተኛ ነበሩ?	1, አዎ 0, አይ ደስተኛ አልነበርኩም ሌላ ካለ ይጥቀሱ	LDE04

የቃለ መጠይቅ መመሪያ ለዕናቶች

ስፍራ: _____

ቀን: _____

የተጀመረበት ጊዜ: _____

የተጠናቀቀበት ጊዜ: _____

የተሳታፊዎ ከድ: _____

የቃለ-መጠይቅ ጠያቂው መተዋወቅና ስለ መጠይቁ በቂ ማብራሪያ ስለ መስጠት

- ✓ ቃለ መጠይቅ ጠያቂው ራሱን ያስተዋወቃል
- ✓ የመጠይቁን አላማ በሚገባ ያብራራል
- ✓ መቅረጹ-ድምጽ እንደሚተቀም እና በተሳታፊዎች የሚነሱ ምላሾችም ሆነ ማብራሪያዎች ሚስጥራዊ ይሆናሉ፤ ትክክልና ስህተት መልስ አይኖርም ፤ ሀቀና ምላሾች ግን ይበረታታሉ።

III. እናቶች ድባቴንና እንዴት ይቀበሉታል

- ከወሊድ በኋላ ስላለ ድባቱ ሰምተው ያውቃሉ ?
- ከወሊድ በኋላ ያለን ድባቱ እንዴት ያዩታል?

አሁን ደግሞ በድባቱ ዙሪያ ስላሉት ልምድ እንነጋገር

- የመደባበት ስሜት ለመጀመሪያ ጊዜ የተሰማዎት መቼ ነበር ?
- ምን አይነት ሀሳብና ስሜት ነበር የሚሰማዎት ?
- ከነዚህ ምልክቶችን እንዴት ተቋቋሙት?

ማጣሪያ: ተሳታፊዎች ከመደባበት ልምዳቸው ጋር የተያያዘ ማንኛውም

ስሜትና ሁኔታቸውን እንዲያወሩ በደንብ ይበረታታሉ

IV. ማጠቃለያ

✚ ከተነጋገርነው ሀሳብ ጋር በተያያዘ ሊጨምሩ፣ ሊብራሩ የሚፈልጉት ነገር አለ ለመግለጽ ነጻ ይሁኑ

ስለጊዜዎ እና ስላደረጉት አስተዋጽኦ እናመሰግናለን።

የቃለ መጠይቅ መመሪያ ጤና ባለሙያዎች

ስፍራ: _____

ቀን:

የተጀመረበት ጊዜ: _____

የተጠናቀቀበት ጊዜ:

የተሳታፊዎ ኮድ: _____

የቃለ-መጠይቅ ጠያቂው መተዋወቅና ስለ መጠይቁ በቂ ማብራሪያ ስለ መስጠት

- ✓ ቃለ መጠይቅ ጠያቂው ራሱን ያስተዋወቃል
- ✓ የመጠይቁን አላማ በሚገባ ያብራራል
- ✓ መቅረጹ-ድምጽ እንደሚተቀም እና በተሳታፊዎች የሚነሱ ምላሾችም ሆነ ማብራሪያዎች ሚስጥራዊ ይሆናሉ፤ ትክክልና ስህተት መልስ አይኖርም ፤ ሀቀና ምላሾች ግን ይበረታታሉ።

ድባቱን በተመለከተ እንደጤና ባለሙያነቱ የእርስዎን አመለካከት ለመረዳት ወደተዘጋጀው መጤቅ ልወሰድዎ

- ከወሊድ በኋላ የሚከሰትን ድባቱ እንዴት ያዩታል/ ይቀበሉታል ?
- ሌሎች ከወሊድ በሐዋላ የሚደረጉ ክብካቤ ጎን ለጎን እናቶችን ስለ ድባቱ ይነግሯቸዋል ወይ? በምን መልኩ?
- እናቶች ከወሊድ በኋላ ስለመደባበት ስሜታቸው ይነግሯቸዋል ወይ? እንዴት/ በምን መልኩ?
- አንዳንድ ጥናቶች የጤና ባለሙያዎች/አዋላጆች/ የድባቱ እወቀት ለድባቱ የራሱ አስተዋጽኦ አለው ይላሉ ፤ ስለዚህ አመለካከት እርስዎ ምን ይላሉ ?
- የአዋላጆች/የጤና ባለሙያዎች የድባቱ እወቀት ፤ በድባቱ ላይ ተጽዕኖ ያሳድራል ብለው ያስባሉ ? እንዴት?

ማጠቃለያ

✚ ከተነጋገርነዉ ሀሳብ ጋር በተያያዘ ሊጨምሩ፣ ሊብራሩ የሚፈልጉት ነገር ካለ ለመግለጽ ነጻ ይሁኑ

ስለጊዜዎና ስላደረጉት አስተዋጽኦ እናመሰግናለን።

Assurance of principal investigator

I, undersigned here agrees to accept responsibility for scientific ethical and technical conduct of the research project and for provision of required progress reports as per terms and the condition of the AAU SSW PG Program in effect at the time of the grant is forwarded as the result of this application.

Principal investigator: Asnake Tesfaye

Date. _____

Signature _____

Afan Oromo Version Questineer

Waraqaa Odeeffannoo

Seensa: Ani maqaan kiyya armaan gaditti kan ibsame, Yuunvaristii Finfinneetti, Koolleejjii Saayinsii Hawaasaatti, barataa Barnoota Sooshaal Woorkii, yommuun ta’u, mata-duree *“Postpartum Depressions among Mothers who gave birth and attended public health facilities of EastShewa Zone, Ethiopia”* jedhu irratti bara 2011 qorannoo adeemsisuufan jira.

Qorannoo kanaaf, akka hirmaataatti kan filatamtu yommuu ta'u, heeyyama yookaan waliigaltee kee argachuun dura odeeffannoowwan qorannicha ilaalchisan hunda beekuu qabda. Kanaafuu, odeeffannoon kun haala armaan gadiitiin bal'inaan dhiyaateera:

- **Kaayyoo:** Hanga miira nuffii da'iinsaan boodaa murteessuu fi dhimmoota isa wajjin walqabatan dubartoota da'an gidduutti jiran qorachuuf, akkasumas ilaalcha deessistoonni miira nuffii dubartoota da'an irratti jiruu kan Hospitaalotaa fi Buufatoota Fayyaa Shawaa Bahaa keessatti argamanii, Itiyoophiyaa, bara 2012 qorachuu irratti kan xiyyeeffate dha.
- **Barbaachisummaa qorannichaa:** Dhiibbaawwan miira nuffii da'iinsaan boodaa haadholii irratti jiru, walitti-dhufeenya gaa'ela isaanii keessaa, fi daa'imman isaanii haala qorachuu fi furmaata barbaaduuf barbaachisaa ta'e dha. Qorannoon kun argannoowwan ifa gochuun hubannoo hawaasaa cimsuuf fayyada. Kana malees, qorannoon ammaa kun joornaalota beekkammoo ta'an irratti maxxansamee gareewwan qorannoo garabiraa fi hawaasa akkaadaamiitti kan tamsaasamu ta'a. Akkasumas, qabeen odeeffannoo ykn daataa-beeziin qorannoo kanaan akka maddu taasisamu qorannoo fi xiinxallii gadifageenya qabuuf tajaajilamtoota garabiraatiif akka dhiyaatu ni taasisama.
- **Toftaalee:** Qorannoon hunda-galeessaa (*cross-sectional*) faasiliitii-bu'uureffate Adoolessa bara 2011 hanga Hagayyaatti haadholii 500 Godina Shawaa Bahaa, itiyoophiyaa keessatti da'an irratti ni gaggeessama.
- **Sagantaa Hojii:** Qorannoon kun hanga Guraandhala bara 2012 tti kan xumuuramu ta'a.
- **Hirmaattota qorannicha keessatti hammataman:** Dhaabbilee eegumsa fayyaa Godina Shawaa Bahaa keessatti dubartoota waggaa tokko darbe keessatti da'an keessaa carraadhaan (*randomely*) ni filatamu.
- **Icciiiti:** Odeeffannoon ati kennitu hunduu icciitiidhaan kan qabamanii fi qaamni sadaffaa akka hin argine ni taasisama. Maqaan kee waraqaa gaaffii irratti hin barreessamu.

➤ **Sodaawwanii fi Faayidaalee Qorannichaa**

Sodaawwan: Qorannoon kun gaaffilee qophaa’anii jiran isin gaafachuun kan adeemsisamu ta’a. Adeemsi qorannichaa dhiibbaa qaamaas ta’ee dhiphina sammuu kan uumu miti. Kana malees, gaaffii hin beekne irratti deebii akka kennitu dirqama hin qabdu.

Faayidaalee: Qorannoo kana keessatti hirmaachuu keetiif kaffaltiin siif kaffalamu yookaan faayidaan addaa siif kennamu hin jiru. Haa ta’u malee, qorannoo kana keessatti hirmaachuun gaaffilee gaafatamtaniif deebii kennuun keessan sagantaalee garafuulduraatti rakkoo nuffii da’iinsaan booda haadholii irratti uumamu furuudhaaf faayidaa cimaa ni qabaata.

➤ **Waliigaltee:** Qorannoo kana keessatti hirmaannaan keessan guutumaan-guutuutti fedhii keessan irratti kan hundaa’e dha. Jalqaba irraa kaasee yookaan yeroo kamiyyuu taanaan qorannicha keessatti hirmaachuu dhiisuu ni dandeessa. Odeeffannoo hin beekneef akka deebii kennitu dirqama hin qabdu.

➤ **Maqaa barataa digirii 3ffaa (Ph.D) fi Gorsitootaa:**

✓ Asnaaqaa Tasfaayee Guyyaa:_____ Mallattoo:_____

Moobaayila : +251911315444 **Iimeelii:** asnake1984@gmail.com

✓ Gorsaa Muummee Pirofeesar Maargaareet Aaddaamqee fi It/Aanaa Gorsaa

Dr. Yaaniyaa Sa’iid Makiyyaa

Miiltoo II: Waraqaa Gaaffilee

Waraqaa Gaaffii Caaseffame: Afaan Oromoo

Yuunvaristii Finfinnee y

Koolleejjii Saayinsii Hawaasaa, Kutaa Barnootaa Sooshaal Woorkii

Waraqaa gaaffilee qorannoo mata-duree: “*Postpartum Depressions among mothers who gave birth and attending public health facilities of EastShewa Zone, Ethiopia*”.

Unka Waliigaltee Hirmaattonni Qorannichaa Gaaffii-deebiin Dura Kennan

03. Maqaa Dhaabbata Eegumsa Fayyaa _____

04. Lakkoofsa Addaa Waraqaa Gaaffii _____

Seensa

Akkam bultan, Akkam ooltan (akka mijataa ta'etti). Maqaan kiyya _____ jedhama. Ani ogummaadhaan Narsii/Deessistuu yommuun ta'u, yeroo ammaatti haadholii da'anii fi gareen umurii isaanii (waggaa 15-49) ta'an irraa odeeffannoo qorannoo miira nuffii (*Postpartum Depressions*) haadholii da'anii irratti uumamu ilaalchisee Godina Shawaa Bahaatti Dhaabbilee Eegumsa Fayyaa keessatti tajaajila argachaa jiran irratti adeemsisamuuf sassaabaan jira. Qorannicha kan adeemsisu ykn kan qorachaa jiru Asnaaqaa Tasfaayee nama jedhamu yommuu ta'u, Yuunvaristii Finfinneetti, Koolleejjii Saayinsii Hawaasaatti, barataa Kutaa Barnootaa Sooshaal Woorkii (*Social Work*) dha. Qorannoo kana keessatti akka hirmaattan carraadhaan filatamtaniittu. Qorannichi adeemsa gaaffii-deebiitiin kan gaggeessamu ta'a. Maqaan keessanii fi odeeffannoowwan eenyummaa keessan ibsan unka sassaabbii odeeffannoo irratti hin galmeessamu; akkasumas, odeeffannoowwan isin naaf kennitan icciitiidhaan kan qabamuu fi kaayyoo qorannoo kanaatiif qofaa tajaajilarra kan oolu ta'a. Maqaan hirmaattotaa hin barreessamu; kanaafuu, lakkoosfi koodii kan ibsamu ta'a. Argannoon qorannoo kanaa kan maxxansamu yoo ta'e, odeeffannoon cuunfaa garee hundaa gabaabaatti kan dhiyaatu ta'a. Adeemsi gaaffii fi deebii kun yeroo daqiiqaa 30 kan fudhatu yommuu ta'u guutumaan-guutuutti fedhii irratti kan hundaa'e waan ta'eef, hirmaachuuf yookaan hirmaachuu dhiisuuf, akkasumas yeroo kamiyyuu hirmaannaa keessan addaan kutuuf mirga ni qabdu. Odeeffannoo gaafatamtan ilaalchisee yoo walii hin galiin rakkoon isin mudatu hin jiru. Qorannoo kana keessatti hirmaachuun keessan dhimmootaa fi rakkoolee miira nuffii da'iinsaan boodaa (PPD) dubartoota Godina Shawaa Bahaa hubachuuf faayidaa

qaba. Qorannoo kana ilaalchisee gaaffii kamiyyuu yoo qabaatan ana gaafachuu yookaan qorattoota muummee Asnaaqaa Tasfaayee (**Moobaayila** : +251911315444 **Imeelii:** asnake1984@gmail.com) gaafachuu ni dandeessu.

❖ Qorannoo kana keessatti hirmaachuuf fedhii qabdaa?

2. Eeyyee

2. Lakki

❖ Adeemsisaa gaaffii fi deebii hirmaatichi waliigaluu isaa afaan ibsachuu isaa mirkaneesse

Maqaa _____ Mallattoo _____ Guyyaa _____

Argannoo: A) Guutummaan sassaabameera B) Ni dide C) Hanga tokkoon xumuurameera

D) Kan biraa (maaloo, ibsi)

❖ Kan qorate:

Maqaa _____ Mallattoo _____ Guyyaa _____

Waraqaa Gaaffilee qorannoo mata-duree: “Postpartum Depressions among Mothers who gave birth and attended public health facilities of EastShewa Zone, Ethiopia” jedhu.

Amma, gaaffilee murtaa’an dhuunfaan isinii fi maatii keessan ilaallatan gaafachuun jalqaba:


KUTA –I DHIMMA HAAWAASUMMAA /Oddefannoo Dhunffa/

Code	Gaaffii	Deebii	Variables
101	Umuriin keessan meeqaa ? waggaadhaan guutaa	_____	SDV 01
102	Saba	9. Oromoo 10. Amaaraa 11. Guraage 12. Kan bira ibsaa_____	SDV 02

103	Amantaa	1. Muslima 2. Ortoodoksii 3. Pirootestaantii 4. Kan biro ibsaa_____	SDV 03
104	Sadarkaa gaa' ilaa keessan maala fakkaataa?	1. kan hin heerumne 2. kan herumtee 3. kan hiikte 4. kan jalaa du'e 5. kan waliin jiraatu otto wal hin fudhiin	SDV 04
105	Sadarkaa barumsaa	1. Sadarkaa 1ffaa (kutaal-8) 2. Sadarkaa 2ffaa (kutaal 9-12) 3. Diploma ykn barumsa levelii 4. Digirii 5. Digirii 2ffaa fi isa oli	SDV 05
106	Sadarkaa barumsaa abba mana	1. Sadarkaa 1ffaa (kutaal-8) 2. Sadarkaa 2ffaa (kutaal 9-12) 3. Diploma ykn barumsa levelii 4. Digirii 5. Digirii 2ffaa fi isa oli	SDV 06
107	Gosa hojii keessan kan ammaa hojjechaa jirtan maalii ?	13. Hoji Mottumma 14. Hoji dhunfa 15. Hadha mana 16. Daldala 17. Barattuu Kan bira ibsaa_____	SDV 07

108	Gosa hojii abbaa mana keessan kan ammaa hojjechaa jirtu maalii ?	1. Hoji Mottumma 2. Hoji dhunfa 3. Hadha mana 4. Daldala 5. Barattuu Kan bira ibsaa _____	SDV 08
109	Nama meeqatu mana keessan keessa jiraata lakkoofsan guutaa (Baayina maatii)	_____	SDV 09
110	Jireenga kessanni Essa dha?	1. Badiya 2. Meggala	SDV 10
111	Miindan ji'aan argachaa jirtan meeqa qarshiidhaan guutaa?	_____	SDV 11
112	Radiyooni qabda?	1. Eeyye 2. lakki	SDV 12
113	Televisionni qabda?	1. Eeyye 2. lakki	SDV 113
114	Mobayyillii Qabda	1. Eeyye 2. lakki	SDV 114

KUTAA 2: DHIMMOOTA DA'IINSA WAJJIN WALQABATAN

201	Daa'ima kanaan dura ulfoofttee turtee?	1. Eeyyee 0. Lakki 'Lakki' yoo ta'e gara  G.210 tti darbi	OBF 01
202	Yeroo jalqabaatiif yommuu	_____ waggaa ...	OBF 02

	ulfooftetti umuriin kee meeqa ture? (umurii waggaadhaan)	hin yaadadhu /DK..99/	
203	Yeroo darbe kan deesse yeroo meeqaffaadhaafi	1) 1 ^{ffaa} 2). 2 ^{ffaa} 3). 3 ^{ffaa} 4). Arfaffaa fi isaan oliif	OBF 03
204	Daa'imman lubbuun jiran meeqa deesse? (lakkoofsaan ibsi)	1). Baay'ina daa'imman lubbuun jiranii : ____ 2) Baay'ina daa'imman du'anii: _____ 3) Baay'ina daa'imman du'anii dhalatani: _ 4) Deebii hin qabu /DK....99/	OBF 04
205	Rakkoon ulfi irraa bahuu si quunnamee beekaa?	1). Eeyyee 0). Lakki	OBF 05
206	Yeroo meeqa? (lakkoofsaan ibsi)	1. _____ 0. Deebii hin qabu/ hin beeku (DK)	OBF 06
207	Daa'ima du'e deessee beektaa?	1. Eeyyee 0. Lakki	OBF 07
208	'Eeyyee' yoo ta'e yeroo meeqaaf? Lakkoofsaan ibsi)	1. _____ 0. Hin beeku (DK)	OBF 08
209	Saalli daa'imman kee amma jiranii dhiiraa fi dhalaan meeqa? (lakkoofsaan ibsi)	Dhiirri: _____ Dhalaan _____, ida'amaan _____	OBF 09

210	Haalli ulfaa kee yeroo darbee akkam ture?	1. Kan karoorsame 2. Kan hin karoorsamne	OBF 10
211	Daa'imman dabalataan da'uu ni barbaaddaa?	1. Eeyyee 0. Lakki?	OBF 11
212	Daa'imman meeqa? (Lakkoofsaan ibsi)	Dhiira _____ Dhalaa _____ Ida'ama _____	OBF 12
213	Daa'ima da'uuf kan murteessu eenyu dha?	1. Niitii 2. Dhirsaa 3. Waliin maryachuudhaan	OBF 13
214	Ulfa yeroo darbee ykn isa xumuuraa keessatti rakkoon fayyummaa sirra gahe jiraa?	1. Eeyyee 0. Lakki	OBF 14
215	Deebiin kee G.214 dhaaf 'Eeyyee' yoo ta'e, rakkoo fayyaa akkamiitu simudate?	<u>Lists</u> 1. <u>Yes</u> 0. <u>No</u> 1. Dhiibbaa dhiigaa 2. Dhukkuba busaa 3. Dhhigni hedduu dhiiguu 4. sirriitti arguu dadhabuu, 13. ol-deebisa 14. dhaqna-gubaa cimaa 15. waan dhangala'oo karaa qaama walhormaataa bahuu 	OBF 15

		<p>16. of-wallaaluu</p> <p>17. mata-dhukkubbii cimaa ta'e</p> <p>18. yeroo fincaan fincaa'uu dhukkubbiin itti dhagahamuu</p> <p>19. baay'ee dadhabbiin itti dhagahamuu, hafuura</p> <p>20. baafachuuf rakkachuu</p> <p>21. dhukkuba garaa cimaa ta'e dhukkuba busaan faalamuu</p> <p>22. kan biraa (adda baasi).....</p>	
216	<p>Yeroo darbe ykn yeroo xumuuraatiif yommuu deessu haala akkamiitiin deesse</p>	<p>1. Haaluma baramaan ciniinsuudhaan</p> <p>2. Wal'aansa baqaqsanii deessisuutiin</p> <p>3. Kan biraa (ibsi)</p>	OBF 16
217	<p>Yeroo darbe ykn yeroo xumuuraatiif yommuu deessu eega deesseen booda maaltu uumame?</p>	<p>1) Daa'ima lubbuun jiru</p> <p>2) Daa'ima du'e</p> <p>3) Lubbuun eega dhalatee booda battalumatti du'e</p> <p>4). Kan biraa?</p>	OBF 17

KUTAA 3: DHIMMOOTA KUNUUNSA DAA'IMMANII

301	Saala daa'ima ykn mucaa keetii:	1) Dhiira 2) Dhalaa	PD 01
302	Saalli ati barbaaddu kan feetu	1) Dhiira 2) Dhalaa 3) Adda hin baasne	PD 02
303	Mucaan kee yommuu dhalatu/ttu ulfaatinni qaamaa meeqa ture?	Giraama----- 99. Hin beeku	PD 03
304	304. Daa'imni kee aakuma dhalateen nyaata maal nyaachisuu jalqabde?	1) Harma hoosisuu 2) Aannan xuuxxoo hoosisuu 3) Kan biraa (adda baasii ibsi)-----	PD 04
305	G304 dhaaf deebiin kee 1 yoo ta'e, ji'a 6 guutuudhaaf nyaata kana kennitee?	1) Eeyyee 0) Lakki	PD 05
306	306. Daa'ima kee akka nyaata argatu gochuuf si rakkisee turee?	1) Eeyyee 0) Lakki	PD 06
307	307. Idaa'imni kee rafuudhaaf rakkoon ni mudataan turee?	1) Eeyyee 0) Lakki	PD 07
308	Daa'imni kee eega dhalateen booda dhukkubsatee turee?	1) Eeyyee 0) Lakki	PD 08
309	Daa'imni umurii waggaa tokkoon gadii si jalaa du'ee beekaa?	1) Eeyyee 0) Lakki	PD 09

Code	Questions	Response	Variables
501	Osiloo 1: Namoonni ati itti-dhiyeenya cimaa waan qabduuf rakkoon dhuunfaa cimaa ta'e yoo simudate gargaarsa naaf godhu jettee itti amantu meeqa dha?	1= hin jiru 2= 1-2 3= 3-5 4= 5+	OSS1
502	Osiloo 2: Waan ati gootu ilaalchisee namoonni xiyyeeffannaa kennan meeqa ta'u?	1= hin jiru 2= xiqqoo 3= meeqa akka ta'an murteessuu hin danda'u 4= muraasa 5= hedduu	OSS2
503	Osiloo 3: Deeggarsa yeroo barbaaddutti ollaa kee irraa deeggarsa qabatamaa ta'e argachuuf hangam salphaa dha?	1= vbay'ee ulfaataa 2= ulfaataa dha 3= ni danda'ama 4= salphaa dha 5= baay'ee salphaa dha	OSS3

KUTAA 6: Gaaffii Waayyee Maatii

601	Waggaa baranaa miseensi maatii sijalaa du'e jiraa?	1), Eeyyee (0) Lakki	FH01
602	Yeroo ammaa miseensi maatii sijalaa dhukkubsate jiraa?	1), Eeyyee (0) Lakki	FH 02
603	Seenaa dhukkuba sammuu maatii keessatti jiru?	1), Eeyyee (0) Lakki	FH 03

KUTAA 7: WALITTI-DHUFEEENYA NAMOOTTA GIDDUU

Dhirsii fi niitiin ykn abbaa manaa fi haadha manaa walitti-dhufeenya gaarii ta'e yoo qabaatanillee, yeroon walitti-bu'iinsii fi waliigaltee dhabiinsi itti uumamus ni jiraata. Abbaan manaa fi haati manaa namoota garabiraa wajjin sababoota garaagaraa irraa kan ka'e waliigaltee dhabuu ni danda'u, yookaan sababa hojiilee garabiraatiin dadhabaniif yookaan gammachuun waan itti hin dhagahamiiniif walitti bu'iinsi uumamuu ni danda'a. Kana malees, barsiifata garaagara ta'een rakkoolee isaanii hiikuuf yaaluu ni danda'u. Amma abbaa manaa kee wajin yommuu mormii qabaattu maal akka sitti dhagahamu si gaafachuun barbaada.

701	Atii fi abbaan manaa kee waliigaltee dhabiinsi yommuu jiraatu akkamitti hiikuuf yaaltu?	[0] Rakkoon hin jiru [1] Rakkoo murtaa'aa [2] Rakkoo cimaa	DV1
702	Akka waliigalatti, walitti-dhufeenya keessan akkamitti ibsita?	[0] Rakkoon hin jiru [1] rakkoo muraasa [2] rakkoolee hedduu	DV2
703	Abbaan manaa kee si'ii fi ijoollee keessan haala gaariin isin kunuunsaa? beeku	[0] yeroo hunda gaarii dha [1] yeroo hedduu gaarii dha [2] giddu-galeessa [3] yeroo hedduu gaarii miti	DV3

704	Walitti-dhufeenya keessan yeroo ammaa ilaalchisee nageenyi sitti ni dhagahamaa?	[0] yeroo hunda nagaa dha [1] yeroo hedduu nagaa dha [2] giddu-galeessa [3] yeroo hedduu nagaa miti [4] nagaa ta'ee hin beeku	DV4
705	Abbaa manaa kee yeroo ammaa, hiriyoota kee, yookaan abbaa manaa kee fi hiriyoota kee kanaan durii keessaa namni akka nageenyi sitti hin dhagahamne si taasisu ni jira?	[0] yeroo hunda nagaa dha [1] yeroo hedduu nagaa dha [2] giddu-galeessa [3] yeroo hedduu nagaa miti [4] nagaa ta'ee hin beeku	DV5

KUUTA 8: Gaaffiilee Waa’ee PHQ-9 (Patient Health Questionnaire-9)

Code	Question	Response	Variables
801	Torbee lamaan kan keessatti yeroo ammamiif rakkinoota armaan gaditti eeraman kun hammam isin mudaatee beeka. Hojii yeroo hojjetan fedha dhabdan ykn fedhiin hojiidhaaf qabdan hir’atee beekaa?	0. Homtuu hinjiru 1. Guyyaa xiqqoo 2. Guyyaa baay’ee 3. Guyyaa hunda	EDPD01
802	Torbee lamaan kan keessatti yeroo ammamiif rakkinoota armaan gaditti eeraman kun hammam isin mudaatee beeka. Fedhii dhabuu, abdi utachuu akkasumaas nama jibbisiisu/dukaakkiin isin qunamee turee?	0. Homtuu hinjiru 1. Guyyaa xiqqoo 2. Guyyaa baay’ee 3. Guyyaa hunda	EDPD02
803	Torbee lamaan kan keessatti yeroo ammamiif rakkinoota armaan gaditti eeraman kun hammam isin mudaatee beeka. Hiriba dhabuun jeeqamuu akkasumaas yeroo baay’ee rafuu isin qunamee beekaa?	0. Homtuu hinjiru 1. Guyyaa xiqqoo 2. Guyyaa baay’ee 3. Guyyaa hunda	EDPD03

Code	Question	Response	Variables
804	Torbee lamaan kan keessatti yeroo ammamiif rakkinoota armaan gaditti eeraman kun hammam isin mudaatee beeka. Dadhabin namatti dhagahamuu akkasumaas human dhabbuu isin qunamee beekaa?	0. Homtuu hinjiru 1. Guyyaa xiqqoo 2. Guyyaa baay'ee 3. Guyyaa hunda	EDPD04
805	Torbee lamaan kan keessatti yeroo ammamiif rakkinoota armaan gaditti eeraman kun hammam isin mudaatee beeka. Fedhii nyaata dhabuu akkasumaas humna oli nyaachuu isin qunamee beekaa?	0. Homtuu hinjiru 1. Guyyaa xiqqoo 2. Guyyaa baay'ee 3. Guyyaa hunda	EDPD05
806	Torbee lamaan kan keessatti yeroo ammamiif rakkinoota armaan gaditti eeraman kun hammam isin mudaatee beeka. Waa'ee ofitti gadduu akkasumaas maaltu na dhiibdee namatti dhagahamuu , of gatuu, kufatiin ofii namatti dhagahamuu akkasumaas kufatiin maatii namatti dhagahamuu isin qunamee beekaa?	0. Homtuu hinjiru 1. Guyyaa xiqqoo 2. Guyyaa baay'ee 3. Guyyaa hunda	EDPD06
807	Torbee lamaan kan keessatti yeroo ammamiif rakkinoota armaan gaditti eeraman kun hammam isin mudaatee beeka. Yeroo ofii wanta tokko irratti xiyyeeffachuu	0. Homtuu hinjiru 1. Guyyaa xiqqoo 2. Guyyaa baay'ee 3. Guyyaa hunda	EDPD07

Code	Question	Response	Variables
808	<p>Torbee lamaan kan keessatti yeroo ammamiif rakkinoota armaan gaditti eeraman kun hammam isin mudaatee beeka.</p> <p>Suuta jedhanii deemu fi dubbachuu faallaa kana</p>	<p>0. Homtuu hinjiru</p> <p>1. Guyyaa xiqqoo</p> <p>2. Guyyaa baay'ee</p> <p>3. Guyyaa hunda</p>	EDPD08
809	<p>Torbee lamaan kan keessatti yeroo ammamiif rakkinoota armaan gaditti eeraman kun hammam isin mudaatee beeka.</p>	<p>0. Homtuu hinjiru</p> <p>1. Guyyaa xiqqoo</p> <p>2. Guyyaa baay'ee</p>	EDPD09
Ida'ama			

KUTAA 9: SEENAA WANTOOTAA ARAADA NAMA QABSIISANITTI

FAYYADAMUU

Gaaffii kana keessatti, wantoota araada nama qabsiisan armaan gaditti ibsaman kan fayyadamtu ta'uu kee ilaalchisee odeeffannoo nuuf kennita.

901	Yeroo ulfaa yookaan eega deesseen booda wantoota araada nama qabsiisanitti fayyadamteettaa?	1. Eeyyee 0. Lakki	HSU01
902	'Eeyyee' yoo ta'e, maalitti fayyadamte?	1. Tamboo/sijaaraa 2. Jimaa 3. Dhugaatii nama maceessu 4. Kanneen biraa	HSU02
903	Abbaan manaa kee wantoota armaan olitti ibsaman kanneenitti ni fayyadamaa?	1. Eeyyee 0. Lakki	HSU03
904	Eeyyee' yoo ta'e, maalitti fayyadama?	1. Tamboo/sijaaraa 2. Jimaa 3. Dhugaatii nama maceessu 4. Kanneen biraa	HSU04

KUTAA 10: Muuxannoo Dubartoanni Ciniinsuu fi Da'iinsa Irratti Qaban

Amma gaaffilee haalota ciniinsuu fi da'iinsaa ati yeroo darbe yeroo daa'ima deessu ture ilaalchisee jiran sin gaafadha.

Code	Question	Response	Variables
1001	1. Essaati deesse?	(1). Manatti (2). Wiirtuu eegumsa fayyaatti (3). Gara hospitaalaa osoo deemaa jiruu 4) Kan biraa 8.	WLDE01
1002	Akkamitti deesse?	1) Haala baramaadhaan ciniinsuudhaan 2) Wal'aansa yeroo ariifachiisaatiin 3) Wal'aansa baqaqsanii deessisuutiin 4)Wal'aansa	WLDE02
1003	Eega deessiin booda yeroo hangamiitiif wiirtuu eegumsa fayyaa keessa turte?	_____ Sa'aatii ____ 99) Hin yaadadhu	WLDE03
1004	Yeroo wiirtuu eegumsa fayyaa keessaa baatu gammachuun sitti	1) Eeyye 2) Lakki- hin gammanne 3) Kan biraa, adda baasii ibsi.....	WLDE04

Qajeelcha Gaaffii fi Deebii Haadholii Miira Nuffii Da'iinsaan Boodaa (PPD) Qaban

Wajjin

Teessoo: _____

Guyyaa: _____

Sa'aatii mariin itti jalqabame: _____

Sa'aatii mariin itti xumuurame: _____

Koodii hirmaattuu: _____

Haal-mijeessitootaa fi Adeemsa IDI wajjin walbarsiisuu:

- ✓ Haal-mijeessaan/ssituun mataa isaa fi nama yaadannoo qabu hirmaattotatti ni beeksisa.
- ✓ Kaayyoo IDI ilaalchisee ibsa kennuu
- ✓ Akkaataa ittifayyadama teeppii waraabduu: wantoonni hirmaattonni dubbatan hunduu icciitiidhaan kan qabaman ta'u; Deebiin sirrii ta'e yookaan dogoggora ta'e hin jiraatu; Deebiiwwan amanamummaadhaan deebisaman hedduu ni jajjabeessamu

1. Beekumsaa fi Amala Miira Nuffii Da'iinsaan Boodaa (PPD) Irratti Jiru

- a. Waa'ee miira nuffii da'iinsaan boodaa (PPD) dhagessee beektaa?
- b. Beekumsa yookaan odeeffannoo qabdu kana eessaa argatte?
- c. Rakkoo nuffii da'iinsaan boodaa (PPD) irratti ilaalcha akkamii qabda?

2. Muuxannoo haadholii rakkoo miira nuffii da'iinsaan boodaa qaban ilaalchisee qabu

Amma, muuxannoo dhimma kana irratti ati qabdu ilaalchisee bal'inaan haa maryannu

- Yeroo miirri nuffii sitti dhagahamuu jalqabe anatti himuu ni dandeessaa?
- Yaaddanii fi miiraawwan akkamiitu sitti dhufaa turan?
- Mallattoowwan kanneen haala akkamiitiin to'achaa turte?

- Gargaarsa argachuuf yaalii taasiste keessatti muuxannoon siqunname maali (yaalii gooteetta yoo ta'e)?
- Gargaarsa argachuu ilaalchisee haalli ture maal fakkaata?

Xiinxali: Hirmaattonni muuxannoo isaanii miira dhiphinaa ilaalchisee jiran ibsachuu yoo barbaadan akka ibsatan ni jajjabeessamu.

3. Deeggarsa hawaasummaa?

- Akka waliigalaatti, yeroo gammachuun sitti hin dhagahmne gorsa argachuudhaaf eenyu bira deemta ykn eenyuun maryachiista?
- Miira dhiphinaa fi gammachuu dhabuu ilaalchisee odeeffannoo argachuuf eenyuun mariisista ykn eenyu bira deemta?
- Jeeqamuu miirota keetii ilaalchisee deeggarsa argachuuf yookaan gorsa argachuuf eenyu bira deemta ykn eenyuun mariisista?
- Yeroo deeggarsa barbaaddutti namoonni si gargaaruu danda'an ni jiru?
- Rakkoon cimaan yoo si quunname namoonni gargaarsa naaf taasisu jettee itti amantu meeqatu jiru?
- Namoonni waa'ee kee yookaan nageenya kee ilaalchisee xiyyeeffannaa hangam kennu?
- Yeroo ati barbaaddutti ollaan kee deeggarsa ati barbaadde siif kennuun isaanii hangam salphaa dha?
- What kind of social support did you get so far? by whom?
- Was it helpful for you? how did it helped you?
- Yeroo gammachuun sitti hin dhagahamnetti gahee hiriyootaa fi maatii keetii akkamitti ilaalta?

4. Xumuuruu/guduunfuu

✚ Dhimmoota hanga ammaatti irratti maryachaa turre ilaalchisee waanti ati dabalataan anatti himuu barbaaddu jiraa?

Hirmaattuun yeroo ishee aarsaa gootee waan hirmaatteef galateeffadhu.

Qajeelcha gaaffii fi deebii ogeeyyii deessistoota ta'an wiirtuulee eegumsa fayyaa filataman keessa hojjetan wajjin gadifageenyaan adeemsisamu.

Akkam. Maqaan kiyya jedhama. Miira nuffii da'iinsaan booda haadholii irratti mul'atu (PPD) ilaalchisee yaada kee irratti maryachuun barbaada.

- Akka ogeessa da'iinsaatti (*midwife*) haadholii wajjin hojjechuu akkamitti ibsita?
- Miira nuffii da'iinsaan booda haadholii irratti mul'atu (PPD) ilaalchisee ilaalcha akkamii qabda?
- Miira nuffii da'iinsaan booda haadholii irratti mul'atu (PPD) haadholii fi daa'imman irratti dhiibbaa akkamii qaba?
- Waa'ee jeeqamuu miiraa ilaalchisee haadholiin odeeffannoo akka argatan taasistee beektaa?
- Haadholiin ulfaa yookaan eega da'aniin booda miirri isaanii jeeqamuu isaa sitti beeksisan jiru? Akkamitti?
- Leenjii Miira nuffii da'iinsaan booda haadholii irratti mul'atu (PPD) qorachuu fudhattee/argatteettaa?
- Miira nuffii da'iinsaan booda haadholii irratti mul'atu (PPD) fi akkaataa to'annoo isaa ilaalchisee hanga ammaatti leenjii fudhatteettaa?
- Qorannoowwan tokko-tokko akka agarsiisanitti, haalli keessummeessuu ogeeyyii deessistootaa miira nuffii da'iinsaan booda haadholii irratti mul'atu (PPD) gaarii waan hin taaneef kun rakkinicha ni cimsa jedhu. Waa'ee argannoo qorannoowwan kanneenii maal yaadda?
- Akka ogeessa deessistuutti rakkoo miira nuffii da'iinsaan booda haadholii irratti mul'atu (PPD) hiikuuf furmaata ta'a kan jettu maali?

Dhimmoota hanga ammaatti irratti maryachaa turre ilaalchisee waanti ati dabalataan anatti himuu barbaaddu jiraa? Hirmaannaa keetiif galatoomi.

Mirkaneessa qorataa muumnee

Ani maqaan kiyya armaan gaditti kan ibsame naamusa saayinsawaa fi teekiniikaa adeemsa qorannoo kanaa keessatti hordofameef ittigaafatamummaa kanin fudhadhu ta'uu kiyya nan mirkaneessa; akkasumas, bu'uura qajeelfamoota Yuunvaristii Finfinneetti Kutaa Barnootaa Sooshaal Woorkiitti Sagantaa Poosti- giraajuweetiitti pirojaktiin qorannichaa kan adeemsisame ta'uu nan mirkaneessa.

Qorataa muumnee: Asnaaqaa Tasfaayee

Guyyaa. _____

Mallattoo

Assurance of principal investigator

I, undersigned here agrees to accept responsibility for scientific ethical and technical conduct of the research project and for provision of required progress reports as per terms and the condition of the AAU SSW PG Program in effect at the time of the grant is forwarded as the result of this application.

Principal investigator: Asnake Tesfaye

Date. _____

Signature
