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Experience of Women Recovered From Eclampsia at Felege Hiwot Comprehensive Specialized Hospital, Northwest Ethiopia: A Phenomenological Study

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EXPERIENCE OF WOMEN RECOVERED FROM ECLAMPSIA AT FELEGE HIWOT COMPREHENSIVE SPECIALIZED HOSPITAL, NORTHWEST ETHIOPIA:

A PHENOMENOLOGICAL STUDY

By

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ABSTRACT:

Background: Eclampsia is a major cause of maternal and perinatal mortality that requires advanced care and long hospital stays with uncertain outcomes for mother and baby. The care of eclamptic women is particularly challenging in low-income countries. To optimize care and costs, health care providers need knowledge on medical, emotional, and social aspects of care for women with eclampsia. Standards for medical care for eclampsia are established but the psychosocial needs of women are under-researched.

Objectives: To explore and describe the experience of women recovered from an eclampsia attack at Felege Hiwot Comprehensive Specialized Hospital North West, Ethiopia, 2021.

Methods: A phenomenological study design was conducted with 10 women recovered from an eclamptic attack between March 1 to April 15, 2021. The sample size was declared depending on the level of saturation. Participants were selected using a homogeneous purposive sampling technique. The data were collected using an in-depth interview technique with the aid of an audio recorder and a semi-structured interview guide by the principal investigator. The women were interviewed about their experience of eclampsia attack at discharge time. The collected data was transcribed word by word and translated conceptually. Finally, the translated data were imported to Atlas.ti^{TM}-7 software for coding and analyzed using thematic analysis approach and then made synthesis (themes).

Result: In this study, the women had experienced severe pain, loss of consciousness, seizure, and unable to control their bodies. The women connected the experience to super-natural power (God) and they were grateful for being recovered. Women were satisfied by the health care service they received and forwarded gratefulness to health care providers and their families. However, they expressed fear of future pregnancy due to the possible re-occurrence of eclampsia.

Conclusion: The experience of women recovering from eclampsia involved a life-threatening, multidimensional experience. Provision of prompt and adequate service for women and their families including appropriate information to eclamptic women and their families reduce their anxiety, fear of future pregnancy, and facilitate quick recovery.

Keywords: Phenomenology, Eclampsia, Felege Hiwot Comprehensive Specialized Hospital, and Ethiopia

ABBREVIATIONS AND ACRONYMS:

EDHS: Ethiopian Demographic and Health Survey

EmOC: Emergency Obstetric Care

DBP: Diastolic Blood Pressure

FHCSH: Felege Hiwot Comprehensive Specialized Hospital

G.C: Gregorian Calendar

HDP: Hypertensive Disorder of Pregnancy

IDI: In-Depth Interview

HEELP: Hemolysis, Elevated liver Enzyme, Low Platelet count

IRB: Institutional Review Board

LMP: Last Menstrual Period

LMICs: Low- and Middle-Income Countries

MMR: Maternal Mortality Rate

NICU: Neonatal Intensive Care Unit

PI: Principal Investigator

PE: Pre-Eclampsia

SBP: Systolic Blood Pressure

SSC: Sub- Saharan Country

UK: United Kingdom

WHO: World Health Organization

TABLE OF CONTENTS

LIST OF TABLES AND FIGURES

ANNEXES

1. INTRODUCTION

1.1 . Background

The term eclampsia is derived from a Greek word meaning "*lighting*" or "*flash of light*" probably translating to its sudden and unpredictable inception. The first mention of eclampsia dates almost 4,000 years back (1). Now day eclampsia is defined as it is a serious obstetric emergency with a new-onset of grand mal seizure during pregnancy or postpartum in a woman having signs or symptoms of preeclampsia (2). It is a severe complication of pre-eclampsia occurring commonly during the second half of pregnancy or the postpartum period (2) (3). The precise pathophysiology of pre-eclampsia and eclampsia are obscure and hence also called "*disease of theories*". The etiology of a pre-eclamptic disease is unknown, and no disease-specific therapy or preventive approach is available (4) (5). A Study conducted on risk for pre-eclampsia/eclampsia during and after pregnancy indicated that abnormal placentation is pivotal to the development of eclampsia and the basic aberrations noted are oxidative stress, endothelial dysfunction, and vasospasm (6).

Enhancements in disease outcomes have resulted from routine pre-birth care provision to all pregnant women and early detection of the syndrome through blood pressure measurement and urinary protein testing. In reality, early historic reductions in the incidence of eclampsia in developed countries have been attributed to increased access to pre-birth and hospital care for all pregnant women (7). Institutional care with close maternal monitoring; prevention and control of seizures through the use of anticonvulsants; treatment of severe hypertension; and timely termination of pregnancy reduce maternal mortality and serious morbidity. Until the cause of pre-eclampsia is identified and specific therapy made available, these symptomatic management approaches offer the only option for reducing maternal and perinatal mortality ascribed to the syndrome (3).

The arrangement of parenteral anticonvulsants to pre-eclamptic/eclamptic women is one of the 9 emergency obstetric care (EmOC)signal functions crucial to the diminishment of maternal mortality(8). Expansive multicenter trials have appeared that magnesium sulfate is predominant to other anticonvulsants in the prevention and control of eclamptic seizures (8). Prompt administration of magnesium sulfate decreases the risk of seizure recurrence by half and significantly reduces the risk of maternal deaths. Control of severe hypertension is also important in decreasing maternal mortality and morbidity due to cerebrovascular accidents. This is often achieved through the administration of effective parenteral anti-hypertensive agents such as hydralazine or labetalol. Termination of pregnancy leads to vast regression of pre-eclamptic disease, often without residual effects (3).

The continuation of extreme preeclampsia and eclampsia results in organ disappointment, loss of awareness or loss of consciousness, and at the end misfortune of lives of both mother and fetus (3)(5). Eclampsia is related to severe maternal and neonatal morbidity. Mothers with eclampsia are at hazard of developing cardiovascular, renal, hematological, neurological, and hepatic complications (9). Eclampsia is additionally related to preterm birth, fetal growth restriction, and placental abruption, subsequently contributing to fetal and neonatal morbidity and mortality. Pre-eclampsia and eclampsia are associated with 25% of stillbirths and neonatal deaths in developing countries (10).

Studies on eclampsia in Ethiopia mainly cover the incidence, prevalence, risk factors, clinical management, outcome, and guidelines on medical treatment (11) (12) (13) (14)(15).

1.2 . Statement of problem

Worldwide, over the past 25 years, the maternal mortality ratio (MMR) has diminished by almost 44%, from 385maternal deaths per 100,000 live births in 1990 to an estimated 216 maternal deaths per 100,000 live births in 2015. Roughly 99% of the worldwide maternal deaths in 2015 are from low and middle-income countries (LMICs), with Sub-Saharan Africa (SSA) alone accounting for generally 66%(16)(17)(18)(19). Concurring to a recent report from the World Health Organization (WHO), in a few African settings, hypertensive disorders of pregnancy (HDP) are the driving cause of maternal mortality(20).

Eclampsia is a serious obstetric emergency with new onset of grand mal seizure during pregnancy or postpartum in a woman having signs or symptoms of pre-eclampsia (3) (16). It is a severe complication of pre-eclampsia occurring commonly during the second half of pregnancy or the postpartum period. The continuation of severe pre-eclampsia and eclampsia incorporates organ failure, loss of consciousness, and finally loss of lives of both mother and fetus (21). Eclampsia is associated with severe maternal and neonatal morbidity (16) (22). Women with eclampsia are at hazard of developing cardiovascular, renal, hematological, neurological, and hepatic complications. Eclampsia is also related to preterm birth, fetal growth restriction, and placental abruption, subsequently contributing to fetal and neonatal morbidity and mortality (3) (10). Pre-eclampsia and eclampsia are associated with 25% of stillbirths and neonatal deaths in developing countries (10).

In developed nations, the rate of eclampsia is detailed to be two to three per 10,000 pregnant women (23). However, in developing countries, the incidence varies widely from six to 100 per 10,000. In the developed world the majority of cases of eclampsia are considered to be unpreventable (met the current standards of care for prevention of eclampsia) (24). In Asia and Africa, about 10% of all maternal passings are related to hypertensive disorders of pregnancy, eclampsia being one of them (25). Despite a worldwide decrease in total numbers of maternal deaths from 1990 to 2013, there has been no significant diminish in the total number of deaths attributed to hypertensive disorders, most of which are due to eclampsia. In the years 1990 and 2013, it is estimated that 38,000 and 30,000 maternal deaths occurred worldwide due to hypertensive disorders (26). However, eclampsia is a particularly serious issue in developing countries(27)(28).

The literature showed that the prevalence of eclampsia in Africa is 14.7% among pregnant mothers. Generally, the prevalence of hypertensive disorder of pregnancy was higher in central and western Africa. One in ten pregnant mothers is affected by a hypertensive disorder of pregnancy in Africa (29).

The prevalence of HDP in Ethiopia is high, 6.07%. Eclampsia prevalence alone is 5.47%. Among the region, the South Nation and Nationalities of People have a high prevalence of HDP, which is 10.13%, and the Amhara region is 8.24% (30).

The study conducted on Amhara region referral hospital showed that the prevalence of unfavorable perinatal outcomes due to severe pre-eclampsia/eclampsia was 46.5% (12), the pattern of Hypertensive Disorders of Pregnancy (HDP) increased over the last years(31), the prevalence of pre-eclampsia in women attending ANC follow up at Felege Hiwot Comprehensive Specialized Hospital was found to be 13.0 %(32).

The study on time to recovery from Eclampsia and its determinants in east Gojjam zone hospitals, Amhara Region, Ethiopia, showed that the median average time to recover was 12 hours, and It was affected by age, duration of labor, the number of convulsions, and time of occurrence of the event(33).

Studies on eclampsia in Ethiopia mainly cover the incidence, prevalence, risk factors, clinical management, outcome, and guidelines on medical treatment (34) (11) (12). No studies have previously explored women's emotional and social needs or opinions to improve care during and after eclampsia. To optimize care and costs, health care providers need knowledge on medical, emotional, and social aspects of care for women with eclampsia. This study aimed to explore and describe women's experiences of having had, and recovered from, eclampsia. Learning from women who survive eclampsia, may help improve policy, programs, and midwifery care for women with eclampsia.

1.3. Significance of the study

The result of this study is important for health care providers, especially midwives for improving eclampsia care through the provision of evidence-based counseling and interventions related to the experience of eclamptic mothers to reduce maternal morbidity due to eclampsia. Provide baseline information for researchers related to the experience of women's having had and recovered from eclampsia.

For health programmers (policymakers) who are governmental or non-governmental organizations, the finding of this study is important to design evidence-based intervention strategies.

2. LITERATURE REVIEW

2.1. Public importance of hypertensive disorder in pregnancy

Maternal mortality is a worldwide challenge with figures as high as 3,03,000 deaths in 2015. Developing nations contribute to 99% of these deaths (10). Globally, secondary analysis done by World Health Organization(WHO) showed that 2.73% of women suffer from a hypertensive disorder of pregnancy while the incidence of chronic hypertension, preeclampsia, and eclampsia are 0.29%, 2.16%, and 0.28%, respectively (35). However, in Africa, a relatively higher prevalence of hypertensive disorder of pregnancy is detailed (36). Preeclampsia (PE) and eclampsia are the second driving cause of maternal mortality claiming 46,900 deaths in the world (29).

Ethiopia is one of the highest estimated numbers of maternal deaths observed in the world accounting for about 4.8% (14, 000) of the global share in 2017 (37). Based on the Ethiopian demographic health survey (EDHS) report in 2016, pregnancy-related maternal deaths were 412 from 100, 000 live births (38). In Ethiopia, nationwide cohort studies were not conducted that indicate the incidence and risk factors of HDP. However, different public health studies involving varied study designs have been conducted on HDP and reported that the overall pooled prevalence of HDP in Ethiopia was 6.82% (39).

2.2. Physical domain

Eclampsia is defined as the occurrence of grand mal seizures during pregnancy or during/after delivery in a woman with preeclampsia, not attributable to other causes. Almost all cases occur in the third trimester (91%), after 28 weeks of pregnancy (40). Pre-eclampsia or eclampsia occurring before 20 weeks of pregnancy can occur in incases of a molar or hydropic degeneration of the placenta with or without a co-existent fetus (41)(42). Convulsions in the first half of pregnancy in association with hypertension and proteinuria should be initially considered as eclampsia, and another pathologic process should be excluded (43).

Eclampsia is one of the most important reasons for maternal mortality in high and low-income countries. According to a review of the literature about maternal mortality, concurrent HELLP syndrome and eclampsia was the principal cause or contributing condition for eclampsia-related mortality in low and high-income countries (44). The deaths probably are related to HELLP syndrome rather than seizures alone, and the control or absence of control of seizures did not appear to affect the cause or timing of death. The majority of maternal deaths were due to intracerebral hemorrhage, data that is classically known in cases of eclampsia and concordance to most reports (45).

Maternal mortality from hypertensive disorders of pregnancy seems to be associated with the triad of seizures, severe systolic hypertension, and thrombocytopenia secondary to HELLP syndrome (46)(47). Hemorrhagic stroke is an important cause of pregnancy-related mortality. In a large proportion of cases, the cause is unclear, often related to preeclampsia-eclampsia. The rates of preeclampsia reported in patients with intracerebral hemorrhage (ICH) in pregnancy have ranged from 14 to 50% (48).

A study showed that Severe headaches and severe abdominal pain were recalled by women before the eclamptic seizure began. Pain resulting from an eclamptic seizure was thought to be labor pain. Some of the women could recall and explain the dramatic experience of eclamptic seizures, whereas others were partially or unaware of what happened. It was described as

feeling as if they were in a dream where they suddenly became weak, falling down uncontrollably, and they experienced muscle twitches, tongue biting, and difficulty speaking. Some women who had an eclamptic seizure lost consciousness. The duration of the period of seizure and unconsciousness was perceived to vary from minutes to several days. While unconscious, some of the women had been taken from home to health facilities or from one facility to another (49).

A study conducted in the Somalia region at Karamara Hospital, eastern Ethiopia showed that the commonest clinical presentation of patients was with convulsion (90.3%), and 9.7% presented with coma without prior report of seizures. The most frequently reported symptoms were: severe headache in (71.3%), blurring of vision (47.3%), and epigastric pain (18.3 %). The gestational age of most of the pregnancies(90%) was estimated by clinical examination and ultrasound scanning as the mothers did not have a reliable last menstrual period (LMP). The average gestational age for those mothers with ante/intrapartum eclampsia was 32.0 weeks and most, (96.8%), were singleton pregnancies (50).

Most of the mothers with eclampsia (53.8%) were subconscious at admission while 29.0% were unconscious.Only(5.4%) of the mothers were normotensive upon admission. Among the hypertensive women, the means systolic blood pressure was 164 mmHg and the mean diastolic blood pressure (DBP) was 110.0 mmHg. Systolic blood pressure (SBP) > 160 was recorded in 64.5%with a range of 110-240. Diastolic blood pressure > 110mmHg (severe hypertension) was recorded in 65.6%with a range of 70–140 mmHg (50).

2.3. Psycho-social domain

Pregnancy is a very specific and complex period. Studies showed that during pregenancy changes are observed not only on the biological/physiological plane but also in psychological and social functioning(51)(52). Psychological functioning change can occur from the very beginning to the end of pregnancy, including the postpartum period(51).

Complications of hypertension during pregnancy affect both mothers and their infants future wellbeing(53). A study showed that women after to be discharged from the hospital concerns about their future wellbeing(54)(49). Women were concerned about how to prevent eclampsia from happening again and some even considered avoiding future pregnancies(49). A study indicated that women admitted with hypertension spontaneously reflected on their lifestyle, daily stress or life events when talking about their hospital admission(54).

Pre-eclampsia in pregnancy was not recognized as a disease and there was no name in the local languages to describe this. Women, however, knew about high blood pressure and were aware they can develop it during pregnancy. It was widely believed that stress and weakness caused high blood pressure in pregnancy and it caused symptoms of headache. The perception of high blood pressure was not based on measurement but on symptoms. Self-medication was often used for headaches associated with high blood pressure. They were also an awareness that severely high blood pressure could result in death (55).

The children were born at a mean age of just under 32 weeks and 90% weighed below the 10th percentile. High psychological distress (score ≥ 133) affected 45% of the mothers at term age and 44% three months post-term. Child social problems were significantly associated with maternal distress at three months and were highest in cases of high maternal distress in

combination with major neonatal morbidity. Child attention problems were associated with maternal anxiety at three months post-term (56).

A literature showed that music therapy for pregnant women with pre-eclampsia was found to increase satisfaction with nursing care in pregnant women, decrease blood pressure, have a positive effect on fetal movement counts, and minimalize the effect on fetal heart rate. Although it seems not to affect anxiety levels, participants relaxed while listening to music (57).

Women described the difficulties they faced settling back into their social relationships with family, friends, and their local community. They often felt isolated; physically isolated because they were not well enough to get out to see people and unable to link with normal post-delivery support networks that other mothers could access. Emotionally, women often found it hard to relate to others who had no idea of the trauma they had experienced and how long recovery might take. One woman felt that her family and friends quickly forgot what she had been through (58)(59).

2.4. Emotional domain

Studies indicated that women's birth-related illnesses often had long-lasting effects on their mental as well as physical health, including anxiety, panic attacks, and post-traumatic stress disorder(58)(60). Birth-related illnesses may also affected the partner's mental health(58). Women with birth trauma often described feeling isolated, and have a profound impact on their relationships, family life, career, and future fertility and some cases felt there was little support available for them or their families after discharge from the hospital (58)(59).

A study conducted in Australia showed that many felt that "something was not quite right" and, once diagnosed, that this could not be happening to them. 19% did not believe the initial diagnosis, 51% of respondents thought that PE was not serious or life-threatening and women felt that their experience with PE had a substantial effect on their anxiety towards future pregnancies and the level of medical care for subsequent pregnancies. Partners/friends/relatives expressed fear that the woman and/or her baby could have died, that they had no prior awareness of PE, and that they did not know what to do to help (61).

A 12 years mother-child prospective cohort study in Netherland examined the association between early maternal psychological distress after severe HDP and child behavior at 12 years of age and the finding was that women with severe HDP had high rates of psychological distress after delivery, which were associated with behavioral problems in their offspring 12 years later (56).

Mothers who had separated from their babies; missed them and felt uncertain about how they were faring. The newborns were placed in a separate care unit and often the mothers did not know the reason for the separation. Not being able to see their babies due to prolonged episodes of unconsciousness was amongst the painful experiences of the interviewed women and not being informed of the care provided to their babies increased their anxiety because they felt that the babies needed them. Despite being almost recovered from eclampsia, the women expressed difficulty in believing that they had fully recovered and thought the problem may reoccur. Their words were full of believing in God and asking for God's help in everything that would happen and resting everything in God's hands (49).

3. OBJECTIVES

General objective:

To explore and describe the experience of women recovered from eclampsia at Felege Hiwot Comprehensive Specialized Hospital, Amhara region, Northwest Ethiopia, 2021.

Specific objectives:

To explore and describe the emotional experience of eclamptic women at Felege Hiwot Comprehensive Specialized Hospital, Amhara Region, Northwest Ethiopia, 2021.

To explore context factors connected with experiences of women under eclampsia care.

4. METHODS AND MATERIALS

4.1. Study setting and period

The study was conducted in Felege Hiwot comprehensive specialized hospital (FHCSH) between March 1 to April 15, 2021, in Bahir Dar City, the capital city of Amhara National Regional State, Ethiopia. The hospital currently has 60 BSc midwives and 05 Obstetricians and Gynaecologists in the Maternal, newborn, and child health (MNCH) ward. Total 4965 mothers have given birth in the hospital, among those 246 are stillbirth in 2020 (62). Women with eclampsia are admitted to the emergency room of the delivery ward. The hospital protocol prescribes that convulsions should be controlled by giving intravenous anticonvulsant drugs like magnesium sulfate. High blood pressure should be controlled with intermittent injections of hydralazine if the woman's diastolic blood pressure is ≥110 mmHg. Induction of labor is provided to women within 12 hours unless there is an indication for cesarean section according to the hospital's protocols. Almost all newborns from eclamptic mothers are sent to the Neonatal Intensive Care Unit (NICU) room for care involving feeding, warmth, and hygiene. Treatments are provided to newborns according to their needs. Discharge from the postnatal ward occurs when the mother and the baby are clinically well. Follow-up in the postnatal clinic is recommended after 7 up to 10 days for mothers who are near to the hospital and others from a remote area are linked to their nearest hospital or health center for follow-up.

4.2. Study design

A Phenomenology study design was conducted. The objective of this study is to explore the experience of women attacked by eclampsia; the PI was applied a phenomenological research design under a qualitative research approach. The typical feature of phenomenological research is that the subjective experience is at the center of the inquiry as phenomenology is a research strategy that helps us to understand the hidden meanings and essences of human experience.

The importance of applying qualitative research as using phenomenological method is essential to uncover the meaning of an individual's experience of a specified phenomenon through focusing on a concrete experiential account grounded in everyday life and mainly concerned with exploring and understanding human experience. Therefore, a phenomenological research design is best suited to explore the experience of women attacked by eclampsia by giving them more room to express their individual experiences related to eclampsia.

4.3. Study participants

The study participants were women, who were admitted and recovered from eclampsia at the maternal and child health ward in Felege Hiwot Comprehensive Specialized Hospital.

4.5. Sample size

The sample size was determined based on theoretical saturation and 10 participants were involved. Saturation of responses, in turn, was ensured when the research questions were answered, responses were completed and no significant new information came from various respondents. Redundancy was tolerated by up to three respondents. A heterogeneous type of purposive sampling technique was employed to select study participants. The study participants were selected from Felege Hiwot comprehensive specialized Hospital who were admitted and recovered from eclampsia. Participant selection was undertaken in collaboration with nurse-midwives caring for the women and by looked their book chart diagnosis.

4.6. Method of data collection and procedure

The data were collected by using a semi-structured in-depth interview (IDI) guide which was prepared and a pre-test was done before the actual data collection began. The guide was developed first in English, translated into Amharic (local language) to collect the data, and then translated back to English to check the consistency. The socio-demographic and lived experience of women recovering from eclampsia was a focusing area of the IDI guide. In-depth interviews (IDIs) were employed to collect the data. The principal investigator conducted ten face-to-face IDIs using the IDI guide.

When the participant agreed to the study, a meeting was scheduled at a time that was convenient for the participant. The location was ensured the participant's privacy and mutually agreed upon. After explaining the purpose, risks, benefits of the study, and the length of the interview, the participants were asked to sign the consent to participate.

The interview was used a semi-structured interview guide-line and conducted in a quiet location. The interviewer requested permission to start the interview and audio-tape recording to ensure verbatim transcription. The interview was conducted until to reach conceptual saturation (to the point no further new information was obtained anymore).

The data collector has used the probing technique, by using how and why, to get adequate data on the point of interest. Participants were coded as P1, P2, P3…respectively according to their order of interviewing. Develop an interview guide which was first prepared in English and later translated to Amharic (the local work language). Socio-demographic and experience of women recovering from eclampsia was the focusing area of interviews. A demographic questionnaire was completed at the end of the interview.

The data collection process was taking place between March 1, to April 15, 2021. Data was collected by the PI, who has taken training on qualitative research and data collection. The average of interviewing time was taken 32 minutes. All interviews were recorded by using a digital audio recorder. In addition, the interviewer was taken notes immediately after the interview, regarding body language, verbal, nonverbal cues, and the researcher's own personal reflection of the interview and labeled the audiotape with the pseudonym.

After all the questions were addressed, the researcher was asked the participants if there was anything additional, they want to discuss or mention. The interviewer has thanked them after completion of the interview and made arrangements for the next contact to ensure the transcription is done as the participant said. After the interview transcription, translation, and initial data analysis, the participants were contacted for transcription verification.

4.5. Rigor and Trustworthiness of the study

To keep the trustworthiness of the study; to determine how closely study findings reflect and represent the data provided and experienced by participants concerning the study processes and procedures, the following trustworthiness principles were followed.

Credibility: Credibility means ensuring the results are believable, consistent with the reality and that the interpretations are true. In this research, credibility was be achieved by prolonged engagement in which the researcher had one mobile phone call contact with most of the participants before data collection to build rapport. Data was collected from different background perspectives of participants to ensure credibility. The researcher was also invited a few participants to review the ideas for transcription verification, which they think the researcher was going to present a true picture from their perspective. The data analysis, interpretations, and conclusions were continuously reviewed to check the consistency between the analysis of data and thematic development.

Dependability: Dependability is the assessment of the data collection and data analysis process. In this research, dependability was attained through accurate documentation by minimizing spelling errors through a frequent check, including all documents in the final report such as including the notes written during the interview and ensuring that the details of the procedures were described to allow the readers to see the basis upon which conclusions will be made. The data analysis, interpretations, and conclusions were continuously reviewed.

Conformability: Conformability is a measure of how well the study's discoveries are supported by the data collected and reflects the objectivity of the data. This means that the researcher's bias should not alter the result. Conformability was achieved by using a quote which means linking the words of the participants and with the discoveries. The audio-taped interviews will not be deleted which will enable others to track the process.

Transferability: The researcher will ensure transferability by providing evidence, a detailed description of the study starting from sampling to data analysis to provide opportunities for replication. Transferability requires detailed, descriptive data in the research report so that others can evaluate the contents to either make a transfer or form a conclusion. Therefore, the method, sample selection, data collection, and analysis were clearly described in this study. The use of advisors who are experts in the field enhanced the transferability of the research.

4.7. Data management and Analysis

First of all, the PI was manage the data by creating and organizing files through data collection, transcription, and translation, so that they can be accessed easily for analysis. The principal investigator conducted all interviews to make sure all silent topics for the interviews were included and that appropriate probing concerning the topic under study was made. As soon as one interview was completed, the recorded was listened to make sure the interviews had been recorded and that they were audible.

Data were analyzed by the following steps:

1. Reading for the contents: First the principal investigator managed the collected data by creating and organizing files through data collection, transcription, and translation so that these were easily accessed to be analyzed. The audio-tape-recorded interview was listened to repeatedly and transcribed word by word into the written text of Amharic language and then translated into the English language to understand more clearly. Then these were read and reread until a full understanding of the meanings of what participants said was gained to detect emerged themes and sub-themes.

2. Coding: The transcribed documents were imported to Atlas. ti qualitative data analysis software version 7 and this software was used to facilitate data analysis. Overall data analysis was made by using an inductive approach. Coding consists of reviewing transcript line by line to isolate keywords and phrases identifying the experience of women recovered from eclampsia to generate emerging sub-themes and themes. As the principal investigator become apparent codes linked to associated nodes were assigned to each incidence of the words/phrases in the source document. Memoing was made to identify the core meanings or essence of the phenomena, the concepts, or themes.

3. Displaying of data: Themes were identified and the variation or richness of each theme was explored.

4. Data reduction: Less broad themes were put together to form more broad themes, essential themes were separated from none.

5. Interpretation of data: Finally, the principal investigator interpreted the reduced themes, formed themes to show the core meanings of the experiences, and presented the findings of the study. The principal Investigator analyzed data to answer the study objective and wrote a report based on categorized themes. Direct quotes were included to provide images for readers.

4.8. Ethical considerations

Consideration of ethical issues is important in any research involving human beings. Ethical considerations concern principles and guidelines which researchers must follow to ascertain that they do not violate the physical, psychological and emotional state of the participants of the study during the data collection process. Ethics should, thus, be understood as a set of rules that prescribe how the researcher must behave towards people involved in the study. For this study ethical approval was obtained from the Institutional Review Board (IRB) of Bahir Dar University, College of Medicine and Health Science, School of Public Health. And also got permission from the study facility Felege Hiwot Comprehensive Specialized Hospital (FHCSH). The purpose and the methodology of the study must be comprehensively explained for the women participating in the study. In addition, all participating women could dissuade and leave the study without paying any fines and penalties and it was also allowed to record

the interviews. The participating women were assured that their information would remain confidential. Participants' names or personal identifiers did not include in the in-depth interviewee to ensure participants' confidentiality. The PI was keeping all transcripts in a locked file. And also, due to the current situation of the coronavirus pandemic, during data collection, PI and respondent kept acceptable covid 19 protocols; used sanitizer, face mask, and kept distance.

5. RESULTS

5.1. Socio-Demographic Characteristics of Participants

Total ten women recovered from eclampsia were interviewed and all of them married. The age range of the participants was the smallest age 21 years and the highest 34 years. Among the ten participating women four were from urban and six from a rural area.

Table.1: Demographic characteristics of participants at FHCSH, 2021.

Participants	Age	Marital status	Gravida
p-1	28	Married	II
p-2	21	Married	I
p-3	24	Married	I
p-4	22	Married	I
p-5	34	Married	III
p-6	24	Married	I
p-7	26	Married	I
p-8	33	Married	II
p-9	21	Married	I
p-10	23	Married	I

5.2. Emotional experience of women recovered from eclampsia attack

The analysis of the experience of the participants resulted in five main themes i.e. Seriousness of the disease, Being connected to supernatural power, Fearing of future pregnancy, Social support, and Health care context. Quotations taken directly from the data are used to illustrate the themes.

5.2.1. Theme 1: Seriousness of the disease

The findings of this study revealed that women who were attacked by eclampsia experienced numerous signs and symptoms; severe headaches, blurring of vision, severe abdominal pain, and recall by women before the eclamptic seizure began. The duration of the period of seizure and unconsciousness was perceived to vary from minutes to several hours. Some of the women could recall and explain the dramatic experience of eclamptic seizures, whereas others were partially or unaware of what happened. It was described as feeling as if they were in a dream where they suddenly became weak, falling uncontrollably, and they experienced muscle twitches, tongue biting, and difficulty speaking.

> *"When I felt headache, I went to sleep. After that my whole body started to be very tired and I didn't talk more but a little bit I haven't heard but I didn't understand what they were saying. After I went to the hospital when I took medication, I feel somewhat better" (A 24 years old woman respondent).*

"The disease was very bad. I had a headache; I feel continuous tiredness in my heart, then when I walked from the salon to the kitchen my sight starts to be blurry then I faint down. But I didn't remember after I faint down". (A 22 years old woman respondent)

Some of the women who had an eclamptic seizure were expressed they were semi-consciousness at the movement. And the women expressed the situation they felt fatigability and gastric pain and assumed it was gastric disease. They also faced difficulty to talk but slightly they heard sounds but didn't understand it. Women from rural areas perceive that easily fatigability and tiredness as due to workload not as a sign and symptom of the disease; but women from the urban area and who are literate perceive fatigability, tiredness, and heartburn as a sign and symptom of being diseased. A gravida II, 28 years old woman who had twin pregnancy experienced easily fatigability, tiredness, and heartburn before seizure but she was perceived as due to she had a twin pregnancy.

"First, I felt like gastric burn (liben wat aregegn) and difficulty of talking. when I went to the health center, then after they told me it was not gastric it was what my blood pressure is raised, and they referred me to the hospital." (A 28 years old woman respondent)

Some of the women expressed they were suffered severe lower abdominal pain and light vaginal bleeding before the seizure occurred, and they perceived it as a labored start, but after a few minutes, they didn't aware of what happened there and found themselves in the hospital bed. Related contexts: The interviewed women have different backgrounds and their backgrounds may be contributing to having their effect on the perception of prodromal signs and symptoms.

"When it started, I spent the day in a market. And then when I return back to home, I feel some back pain and headache; then after blood fluid flash through my vagina (bemahistenie) and I did perceive as labor. But after that, I didn't remember what happened to me." (A 21 years old woman respondent)

5.2.2. Theme 2: Being connected to super-natural power

Connectedness to the super-natural power of women was described and viewed in different ways: some mothers gave praise to God and ask for help them. Women expressed or gave praise to God for saving the life of both themselves and their newborn and after all recovery from this disease. They believed that God made it and in the end he saved and it was just for goodness. This main theme incorporates two sub-themes such as being related to the disease to God and being related the disease to the evil spirit.

5.2.2.1: Being related the disease to God

Most women expressed or gave praise to God for saving the life of both themselves and their newborn and after all recovery from this disease. They believed that God made it and in the end he saved and it was just for goodness.

"It is stressful…. I am stressed that would I be normal again; will I recover fully. Especially after they told me that I was unconscious I am afraid that it may come again and put my life in danger. But God has saved me. It is my prayer that God will not give me this disease again. What if nobody was around when I fainted down? knows the future but thinking of getting sick again by this disease is very frightening, it is terrifying. After all thanks for God!" (A 22 years old woman respondent)

After recovery from eclampsia, some of the women ask how it and why it happened on their such like of disease and ask God, why. Women in the interview expressed their feeling by asking God; why it happened there and felt sorrow.

> *"It is very terrifying to think about the disease. I ask God, why…? The other thing I am wondering is how it happened to me because I haven't heard that any mother was caught by this disease during her pregnancy, so I am still wondering how it happened to me. Still thinking of the disease is terrifying. It is my prayer that such a disease didn't happen to any mother." (A 24 years old woman respondent)*

5.2.2.2: Being related the disease to the evil spirit

Besides recovery from the disease or eclampsia women expressed their opinion; it was evil spirit related and their family tried to visit traditional treatment centers like Holey water. And they don't want to think about what happened. Related contextual factors: Those women from rural areas and no formal education connected eclampsia disease due to super-natural power and visited the local traditional healing practice like holly water. Women who were from rural areas and literate who had ANC follow up and heard about hypertension during pregnancy and its complication; including pre-eclampsia and eclampsia so they perceived eclampsia as like other diseases. Women who are literate mostly perceived eclampsia as a disease and curable one.

> *"My family has saved my life since I have fainted down[seize] they suffer a lot to cure me even they took me to the nearby religious holly water before I came here." (A 21 years old respondent)*

5.2.3. Theme 3: Fearing of future pregnancy

Experiences of fearing future pregnancy emerged as an important concern among women who recovered from eclampsia. Women who were given first birth experience more fear of future pregnancy. And also, those who were from an urban area, and literate one has more fear of future pregnancy. This main theme incorporates two sub-themes namely fear of re-occurrence and fear of consequence.

5.2.3.1. Fear of re-occurrence of eclampsia

Even women who recovered from eclampsia and were discharged from the hospital described they have fear of next pregnancy due to fear of re-occurrence of eclampsia again in next pregnancy. They were worried about their future wellbeing while they will be conceiving their next pregnancy.

> *"It is very terrifying to think of getting pregnant again, but I have only one child I don't want him to be raised alone so with time I am thinking to get pregnant again. With God's will I want to get pregnant but the steps until I give birth it is very terrifying to think". (A 33 years old woman respondent)*

> *"To tell you the truth at this time it is very difficult to think of getting pregnant again. Maybe if things changed after my baby rose, God knows. What if lost my life when I get pregnant again, my son will be raised without a mother! It is hard to think the coming pregnancy, but God knows all." (A 24 years old woman respondent)*

5.2.3.2. Fear of consequence of eclampsia

Some women also fear the next pregnancy due to the consequence of eclampsia. Especially women who had cesarean section more concerned about the next pregnancy because the scar is painful now and they don't know when it became normal and also think that in the next pregnancy same procedure will be done. Due to those things, they worry and fear getting pregnant again. Related contextual factors: Gravidity affected future pregnancy hope. Women who were prime-gravida had fear of future pregnancy but also, they want to have add baby. Women who were delivered by caesarian-section had more future pregnancy fearing. Women from rural areas less expressed their future pregnancy fearing rather they showed to want to add another baby.

> *"Now, I delivered in near-miss (kemot afaf lay) …, They were delivered through the operation without completed their date of birth and I feared so at that time. The scar is pain full now, and I don't know when it will be normal; God grows these delivered I don't know the future." (A 23 years old woman respondent)*

5.2.4. Theme 4: Social support and self-encouragement

Most women in the interview expressed their gratitude to their families, husbands, and neighbors. Social support is crucial to women attacked by eclampsia from the onset of the disease to recovery and to live happy through. And social support is also a means of self-encouragement for women to recover from the disease and their wellbeing for the future. All women mentioned that their family saved their lives and thank. Related contextual factors: Being has a mother and husband nearly was expressed as a means of becoming happy and self-encouragement to recover fast.

> *"Bahir-Dar population they give care and support me, I said thank you very much. Also, for all my neighbors who provide food and whatever they have for me. My neighbor was very cheerful. My husband supported me nearly. Disease like this was very bad so, it needs family support nearly."(A 28 years old woman respondent)*

> *"My husband and my sister have given me good taking care. Even in my pregnancy time, his sister that lives with me was the one that takes care of me with my husband. They are helping me to forget about my dead baby ... (tearing), they advise me that I can be pregnant again. They entertain me so that I can't get bored, I am very thankful for everything they have done for me." (A 34 years old woman respondent)*

5.2.5. Theme 5: Health care context

Most women were satisfied by the health care service they received. And forwarded gratefulness to the health professionals and they expressed health care professionals were saved their lives next to God. They described the disease as urgent and serious and without health professional support it was difficult to survive.

> *"They are very nice, they take care of me as their family, they frequently asked and checked me, and they did measure my blood pressure. They are our gifts below God. May my God give them good health and age it is hard to think of being alive without them." (A 24 years old woman respondent)*

But some women described complaining regarding the service they received. They faced disrespect from some nurses, a shortage of the drug in the hospital, and weak communication between mothers and care providers. Related contextual factors: Bought drugs from a private

pharmacy store expressed as a complaint by women because of its cost. Women from rural areas, and who had community health insurance expressed complaints due to buying drugs from a private drug store. Delivery service is one of the exempted (free services) given in the hospital but due to shortage of drugs at the hospital drug store, women bought drugs from outside and complain about it.

> *"Thanks to God health professionals have saved my life even though they didn't succeed to save my baby's life. But I have seen some disrespectfulness from nurses when they came to check our blood pressure; I don't know maybe they are tired." (A 34 years old woman respondent)*

> *"I have community health insurance (tenamedihin) but we are still buying medicines from private pharmacies. We spend about two thousand birrs. They [the hospital] didn't support me with a single medicine. They told us that they have finished medicine here but then after we came back buying from outside the pharmacy store, they didn't give us an official stamp (mahitem) when we want to, why is this happening? Because of this, my husband became angry." (A 21 years old woman respondent)*

Diagrammatic illustration of allover results:

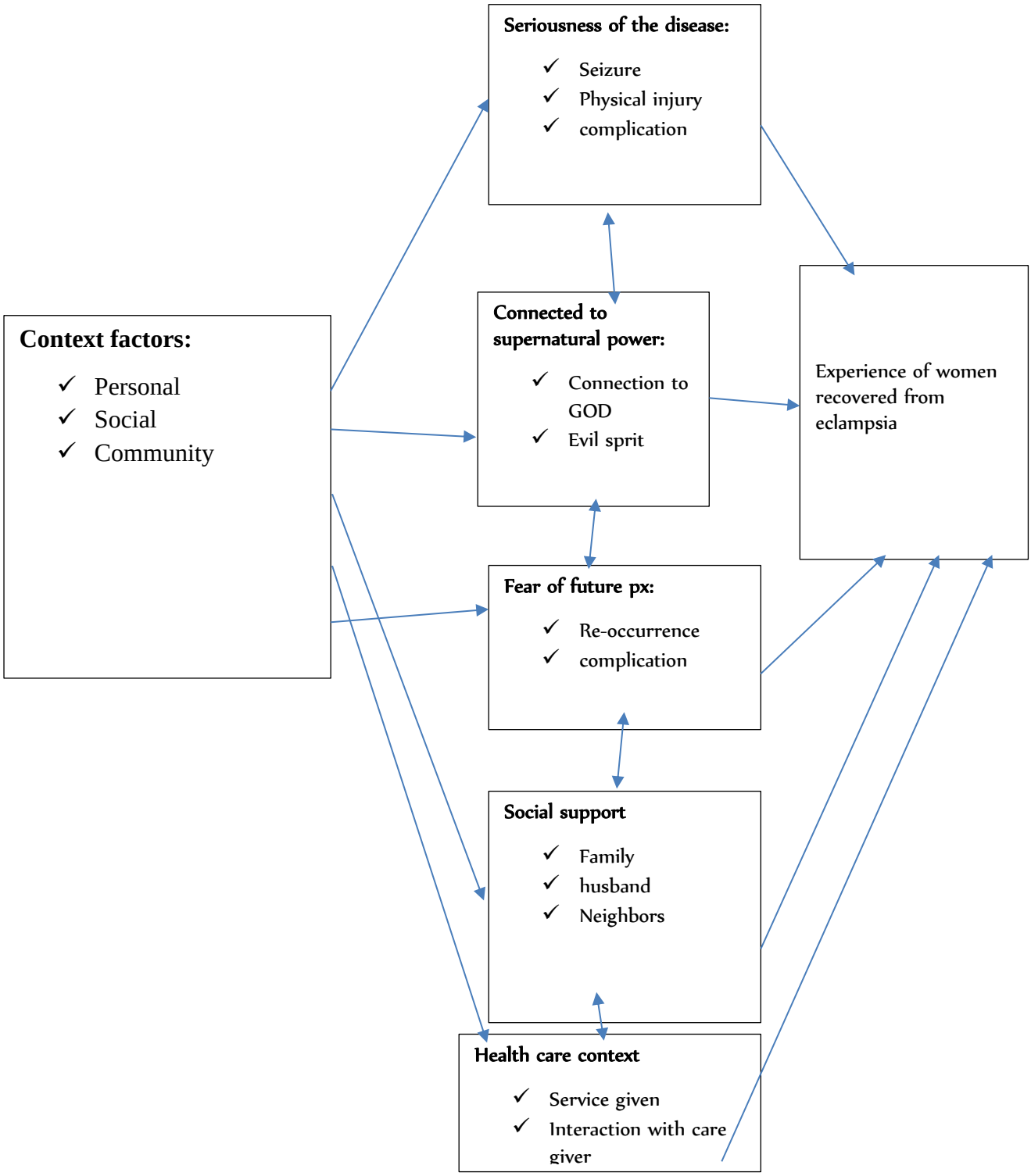

Figure 1: Diagrammatic illustration of the experience of eclamptic women in Felege Hiwot Comprehensive Specialized Hospital, Northwest, Ethiopia, 2021

6. DISCUSSION

This qualitative study provides insight into the experience of women recovered from eclampsia in the Maternal and Child Health ward of Felege Hiwot Compressive Specialized Hospital (FHCSH). The phenomenon of women who recovered from eclampsia was a multifaceted experience with several meanings. They had experienced severe headaches, blurring of vision, severe abdominal pain, loss of consciousness, and seizure, and among those women, most of them totally lost their consciousness, and a few of them lost partially. And also, they experienced physical injuries on their lip, tongue, and other bodies. Most women had feared when they think of being seized and they recognized how the disease was serious and life threatened. The women had experienced a serious life-threatening illness and were grateful to God, and for the care they received. A study showed that most of the eclamptic cases in North America and Europe had no such prodromal signs and symptoms of eclampsia or were not preceded by warning signs or symptoms. In many of these cases, the onset of the seizure is abrupt with the course of the disease not having followed, this may be due to advanced care at ANC clinic and women with pre-eclampsia and thus at a prodromal stage early treated (63) (64). In contrast in this study, most of the women expressed they had early signs and symptoms of the diseases and didn't can prevent them early. This difference may be due to the advanced ANC care and literacy status of women in Europe and North America. But in Ethiopia, there is low coverage and less advanced ANC care (65) and most participants are from a rural area and are illiterate. The studies conducted in Ethiopia showed that most women frequently reported symptoms like severe headache, blurring of vision, and epigastric pain before the seizure occurred (50) (66). Besides this experience women and their families didn't have enough information about the disease's early clinical manifestations related to how to prevent the complication of eclampsia by an early visit of a health organization. To decrease the complication of eclampsia mothers must have to get information about pre-eclampsia and eclampsia from health professionals and preventive method is cost-effective than the curative one. When pregnant women and their families get information about pre-eclampsia and eclampsia at ANC it promotes them, they seek health care service early and can control eclampsia at the prodromal stage and prevent its complication.

Experience of connectedness to super-natural power (God) was a center for all women. They were grateful for being and were continuing to ask for God's help for their future wellbeing. Women, who had lost their baby and faced other complications expressed that they were able to cope with fear and worry by praying and they believed God will give a baby for the future. Connection to God, or spirituality, is a state that could include prayers, meditation, and positive affirmation to find liberation from fear and worry, and add meaning and purpose in life (67). Health care providers can support women and families by collaborating spiritual and psychosocial aspects of care to relieve fear and worry due to this life-threatening disease. The spiritual aspect of care can be cost-effective, highly supportive, and encourage women to be happy in their future life. This type of service can be easily utilized by inviting religious leaders to visit women and it is available and affordable, but health care providers are not utilized well. Even, previous studies from Tanzania indicated that young mothers and fathers appreciated and respected the provided support during the postpartum period (68). However, infrastructural challenges, such as limited space, hospital overcrowding, and lack of privacy, hinder the efforts of most public health facilities to include informal support people in the care provision team. Because holistic and women-friendly service caring is likely to contribute to the recovery of eclamptic women and their babies, it is time to adopt a holistic care approach that integrates

clinical, psychosocial, and spiritual aspects of care into hospital routines. A study conducted in Sub-Saharan countries, and Ghana showed that support from family and partner has a potential effect to decrease the complication of birth outcome (69)(65)(66) and it is in line with this study.

Most women have praised the health care service they received at the hospital and appreciated the respect and good communication of health workers. Although the women appreciated the midwife's approach, advice on the current situation of the disease, future wellbeing and it have given them relief from stress and worry. Studies done in the USA, Nigeria and SSA showed that women with birth complications acknowledged nurse/midwives' responsibility for their wellbeing (67)(68)69) and, in line with this study result. But, a study in Tanzania among eclamptic mothers showed that women did not seem to expect reassurance from the health care providers. They sought ways of coping with their extreme experiences by encouraging themselves, focusing on the fact that their babies had survived, or comparing themselves with women who lost their children(49), which differs from this study. The difference may be due to cultural differences, literacy status of participants, and attitude of women towards health care service. But the women have raised some complaints about shortage of drugs in hospital and they have bought drugs at private pharmacy store and it was high cost. Even if in Ethiopia pregnancy-related services including eclampsia are exempted or free services; in health facilities, all services are not available, and it became a means of complaint of clients.

Most women were unaware and didn't think eclampsia was the cause and they were aware of it after being hospitalized. A study conducted in the Ethiopia Tigray region showed that a high proportion of pregnant women had poor awareness of pregnancy-induced hypertension and its complication (75). Thus, the information provided during antenatal visits to women and their families regarding signs of pre-eclampsia and eclampsia what to do if they appear is very crucial as one of the strategies to prevent eclampsia, especially those women from a rural area. But, women from rural areas most of are illiterate and have no previous awareness of the disease, and do not seek ante-natal visits. The disease eclampsia has no unique name in Amharic in the community and it needs to create awareness of eclampsia through health extension workers and health development army and encourage women to visit the nearby health facility during pregnancy and start ante-natal follow up.

When a birth experience is traumatic the result can be fear of subsequent pregnancies and births. Many women and/or their partners due to what they have experienced, will feel great anxiety about becoming pregnant again, indeed some will be so affected that they may feel it impossible to even entertain having another baby. The women worried over the future pregnancy and re-occurrence of eclampsia were revealed in this study. Experience of fear of next pregnancy and re-occurrence of eclampsia were shared by participants. Women who gave birth through cesarean section expressed more fear, and they were not want to think about the next pregnancy on the movement. Eclamptic women faced life-threatening experiences. They were not aware of it before and it was new for them. They had no detailed information about eclampsia cause, preventive method and they didn't hear about eclampsia before and have no local name of eclampsia in Amharic: it added more fear. This study is in line with a study done in Finland, and United Kingdom (UK) (76,77). This similarity may be due to the fact that the severity of eclampsia and traumatic birth experience of women in this research area and by the women in the above-conducted research results in fear of future pregnancy. A report showed that women who had previous negative childbirth experiences have fear of future pregnancy or

having childbirth (78)(79), and incongruent with this study finding. Health care providers' respectful listening to women's and their families' thoughts and desires and counseling after complicated childbirth has been described as helpful to their future wellbeing and enable realistic planning of future pregnancy and childbirth (80). Ask for and listen to women and their families about their experience of eclampsia and care is a low-cost and feasible method for gaining information and insights for improvement of care in accordance with women's needs.

Strength and limitation of the study:

Strength of the study:

The strength of this study is the inclusion of study participants or women from diverse backgrounds in terms of educational status, occupational status, and residence. The use of the phenomenological approach provided an in-depth insight into how women experienced after recovery from eclampsia. Since the study was conducted face to face, the non-verbal responses of study participants were observed**.**

Limitation of the study:

Maybe participants do not openly express their emotions due to thinking that the investigator is on the side of health care providers.

Maybe women and their families who came to the hospital and got the service have better awareness than those who did not come here.

7. CONCLUSION

Generally, themes explored in this study are the seriousness of the disease, connected to super-natural power, Fear of future pregnancy, Social support, and Health care context. The experience of women recovered from eclampsia at Felege Hiwot Comprehensive Specialized Hospital, Maternal and Child Health ward involved life-threatening, multidimensional experiences and being great full for having survived as well as God's goodness and the care received. Women and the community, in general, need better knowledge about preeclampsia and eclampsia to enable early recognition and care-seeking to prevent complications related to the condition. To create awareness of pre-eclampsia and eclampsia give appropriate information for women and their families. In addition, provision of prompt and adequate service for women and their families including appropriate information to eclamptic women and their families, counseling at discharge time reduce their anxiety, fearing of next pregnancy, and facilitate quick recovery. Improve good communication between women and health care providers, and establishing strong follow up is a means to achieve holistic hospital care that responds to the women's experiences and needs.

8. RECOMMENDATION

To Amhara regional health bureau, maternal and child caregivers and any organization working in the area of maternal and child health might be important to follow the following recommendation:

Give appropriate information about preeclampsia and eclampsia to avoid misunderstandings like connection to an evil spirit (ሰይጣን) at the facility level and community level.

To FHCSH and MCH ward:

To give appropriate information about eclampsia for women and their families.

Creating good communication between health care providers and women.

For Researchers :

Further research on the experience of women recovered from eclampsia after discharge in the community.

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ANNEX

Annex I: Codebook structure

Table 2: Codebooks for the emotional experience of women recovering from eclampsia at Felege Hiwot Comprehensive Specialized Hospital Bahir-Dar, Ethiopia, 2021.

Codes	Definitions
First exposure at home	Description of signs and symptoms of eclampsia first at Home. E.g., when I first feel stomach and heart pain, I went to a health center. Then they told me that it is not my gastric but rather is an increase in blood pressure.
Consciousness status	Explanation of their consciousness after while they seize. E.g., when I felt a headache, I went to sleep. After that my whole body started to be very tired and I didn't talk more but a little bit I haven't heard but I didn't understand what they were saying.
Explain experience at home	Explain prodromal signs and symptoms of eclampsia or explain the phase before they were seized.
Awareness and reaction	Awareness about eclampsia; includes information from health care providers about causes, signs and symptoms, complications, treatments, future wellbeing, and the reaction of women at that time.
Awareness and recommend	Describe their awareness about eclampsia and recommend precautions to another pregnant mother to prevent eclampsia. E.g., early ANC follow up, creating awareness
Awareness of eclampsia	Prior or current awareness about eclampsia by women; they got the information from health profession or other sources. E.g., Signs and symptoms, causes, complications, treatments, etc.
Awareness of eclampsia early	They describe their prior awareness of eclampsia; it includes may be from the local society about eclampsia or from health professionals during their ANC follow-up before they were attacked by eclampsia. E.g., causes, signs, symptoms, complications, etc.

Caregiver approach	Describe health care providers' relationship with eclamptic women. E.g., Greetings, the way information is given for women about the services and informal counseling's.
Caregiver supports	Women describe supports they got from caregivers; it includes medications, procedures, and other supports that are received from the hospital by caregivers.
Causes of eclampsia	Women describe the causes of eclampsia before and after they experienced the diseases. E.g., connected to super-natural power like God and evil-spirit. They reflect knowledge about eclampsia.
Causes of eclampsia and out-come	Women describe the causes of eclampsia and its outcomes when it leaves without intervention and with intervention.
Complain to the care at the hospital	Women describe complaints related to any services they received from the hospital. E.g., disrespect from a caregiver, shortage of drugs at hospital dispensary, etc.
Current awareness for eclampsia	Describe awareness about eclampsia after they experienced it; it includes information they got from health care providers to its causes, sign and symptoms, complication, treatments, and future wellbeing.
Current awareness for eclampsia	Describe awareness about eclampsia after they experienced it; it includes information they got from health care providers to its causes, sign and symptoms, complication, treatments, and future wellbeing.
Early awareness about eclampsia	Women describe awareness about the diseases; it's causes, signs and symptoms, complications, treatments, and future wellbeing.
Empowered by God	Women explain their happiness after recovery and describe that everything was done due to God and also describe future wellbeing depending on God.
Experience and future wellbeing	Women describe their experience after recovery and their future wellbeing. E.g., fearing, describing complications after recovery like c/s procedures, future pregnancy, etc.
Experience after recovery	Women describe their experiences after recovery from eclampsia. E.g., their emotion, physical injury, lost newborn baby, a procedure done, and other issues

Experience after recovery and lesson learned	Women describe their experiences and explain the way to see life for the future. E.g., thank God and they said health is the most important wealth, for future preauction to health, etc.
Experience and future wellbeing	Women after explain their experiences about eclampsia and describe their future wellbeing. E.g., thank God and empowered, fear of re-occurrence, fear of full recovery from it, etc.
Experience at hospital	Any experience related to services received from the hospital. E.g., health care provider support, procedures are done, comfortability of setting at the hospital, and other experiences.
Explain future pregnancy consequence	Women explain their future pregnancy consequences on their life. E.g., they describe future pregnancies will expose other c/s procedures, maybe lose their life due to eclampsia re-occurrence, my newborn baby die, and severity of eclampsia.
Explain pregnancy condition before	Women describe their pregnancy condition before experiencing an eclampsia attack. E.g., months of pregnancy when the disease occurred, their ANC follow-up, counseling received from health care provider during follow up and their health status during pregnancy before.
Explain pregnancy condition before	Women describe their pregnancy condition before experiencing an eclampsia attack. E.g., months of pregnancy when the disease occurred, their ANC follow-up, counseling received from health care provider during follow up and their health status during pregnancy before.
Explain service received at the hospital	Any experience related to services received from the hospital. E.g., health care provider support, procedures are done, comfortability of setting at the hospital, and other experiences.
Explanation cause of eclampsia	Women describe their opinion about the cause of eclampsia and the means of solution. E.g., they described it as related to super-natural power and the means of healing from eclampsia is holly water and other traditional healing practices.

Explanation cause of eclampsia	Women describe their opinion about the cause of eclampsia and the means of solution. E.g., they described it as related to super-natural power and the means of healing from eclampsia is holly water and other traditional healing practices.
Explanation of social support	They explain and acknowledge support from people. E.g., it includes support from friends and neighbors.
They express feeling after recovery	Women expressed their feelings after recovery whether it is positive or negative feelings, e.g., some thank God, their families, health care providers and have good hope, but others ask why God exposed there to this disease and perceived the only woman to face such like experience during pregnancy and feeling sorrow.
Express progress of recovery	Women describe their progress of recovery as body swelling becoming normal, their blood pressure falling down, their body activity becoming normal from the previous days.
Family support	Women describe and thank their family support in different ways. Support from family includes taking care of women, support psychologically, and other medical expenses.
Fear of future pregnancy and hope	Women describe they have fear of future pregnancy but have a good hope to become pregnant again. E.g., To tell you the truth at this time it is very difficult to think of getting pregnant again. Maybe if things changed after my baby rose, God knows. What if lost my life when I get pregnant again, my son will be raised without a mother! It is hard to think about the coming pregnancy, but God knows all.
Feeling about eclampsia	They expressed their experiences about eclampsia and describe their feeling in different ways. E.g., it is very terrifying to think about the disease. I ask God, why? because by the time the situation was very tough it was almost like being dead. The other thing I am wondering is how it happened to me because I haven't heard that any mother was caught by this disease during her pregnancy, so I am still wondering how it happened to me.

Feeling towards a future pregnancy	Good or bad feelings towards future pregnancy due to different reasons. E.g., I delivered in a near-miss, They are delivered through the operation without completing their date of birth and I feared so at that time. For the future I will get birth when God says until that God grows these delivered I don't know the future.
Future pregnancy and its difficulty	Women describe the difficulty of future pregnancy by mentioning different complications of eclampsia and its severity. E.g., tension or stress until birth is one difficulty and its complication.
The hope of future pregnancy	Women expressed their hope for future pregnancy. E.g., some expressed have good hope to become pregnant again and pray to God help them and others not to want to become pregnant due to different reasons, and others not to want to talk about that.
Husband supports	They expressed support from their husbands starting from their pregnancy and when they became attacked by eclampsia and until recovery. E.g., psychological support
Importance of social support	Women describe the importance of social support from their family, friends, and neighbors. E.g., For for my family to save my life by bringing me to the hospital I want to thank them.
Awareness early	They describe their prior awareness of eclampsia; it includes may be from the local society about eclampsia or from health professionals during their ANC follow-up before they were attacked by eclampsia. E.g., causes, signs, symptoms, complications, etc.
Information about eclampsia	They explain the information they got from health care providers. E.g., causes, signs, and symptoms, precautions during pregnancy to prevent eclampsia, complication, treatments, and the future wellbeing of women after recovery from eclampsia.

Mode of delivery	Women describe the way they gave birth and its outcomes. E.g., describe their c/s delivery, vaginal delivery, the procedures they followed before delivery, and the outcome of their newborn baby.
Prior awareness of eclampsia	They describe their prior awareness of eclampsia; it includes may be from the local society about eclampsia or from health professionals during their ANC follow-up before they were attacked by eclampsia. E.g., causes, signs, symptoms, complications, etc.
Physical injury	Mentioned and showed their physical injury when they were falling down and scars due to the procedures they did. E,g injury on limp and tongue due to seizure, c/s scar, small blue-black spot on IV secured area.
Reaction to the experience of eclampsia	Women react towards their experiences of eclampsia whether positively or negatively. E.g., some thank God after all of the things that happened and have good hope for future wellbeing. Others react negatively and feel sorrow.
Reaction to lost baby	Expressed their feelings towards lost babies. E.g., became silent while they were talking, tearing…etc.
Reaction to the experience	Women react towards their experiences of eclampsia whether positively or negatively. E.g., some thank God after all of the things that happened and have good hope for future wellbeing. Others react negatively and feel sorrow.
Service at the health center	Describe the services they received at the health center before they were referred to the hospital. E.g., Health professionals are called to stand for humans and be alive for human life. To be up to now my health, it is the great effort of them. Up to the entry of the hospital to now, they are providing me care very well.

Service for newborn baby	Talk about the services that have been given for their newborn baby. E.g., my newborn baby was not good, but now he is active and sucking well this is because they have given care when he was sick and now, I would like to give thanks to their (health professionals.)
Service received and feeling	After describing the service, they have received from health facilities they expressed their feelings for the things to be done for them to save their life. Health professionals are a gift from God. They are the ones keeps who helped me through my recovery. I have seen some getting angry when they came to us for follow-up. But generally, health professionals are very nice- they have helped me a lot.
Share experience and recommend a solution	Eclamptic women expressed their experiences and recommend solutions to those pregnant women to prevent eclampsia. E.g., recommend awareness creation in society to encourage ANC follow-up.
Service received	After describing the service, they have received from health facilities they expressed their feelings for the things to be done for them to save their life. E.g., Health professionals are a gift from God. They are the ones keeps who helped me through my recovery. I have seen some getting angry when they came to us for follow-up. But generally, health professionals are very nice- they have helped me a lot.
Support from care providers and their relation	Talk about the support they have got from health care providers and the way health care providers approach them. E.g., they saved my life next to God. All are good except some of them were angry, this may be due to load of work. Generally, they approached like family. They (health professionals) advise me to take food, feed my newborn baby, and wish for my rapid recovery.

Support from friends	Talk about the support they have got from their friends and thank them. E.g., All my neighbors who provide food and whatever they have for me. Starting from I was in the hospital and also now after I returned to the home, they are asking me my health status. Thank you to all who normally supported me and were a motivation for me. My neighbor was very cheerful. My husband supported me nearly. A disease like this was very bad so, it needs family support nearly.
Share experience and recommend a solution	Eclamptic women expressed their experiences and recommend solutions to those pregnant women to prevent eclampsia. E.g., recommend awareness creation in society to encourage ANC follow-up in order to detect the disease early at ANC follow-up and to prevent the complication.

Annex II: Networks have done during Analysis

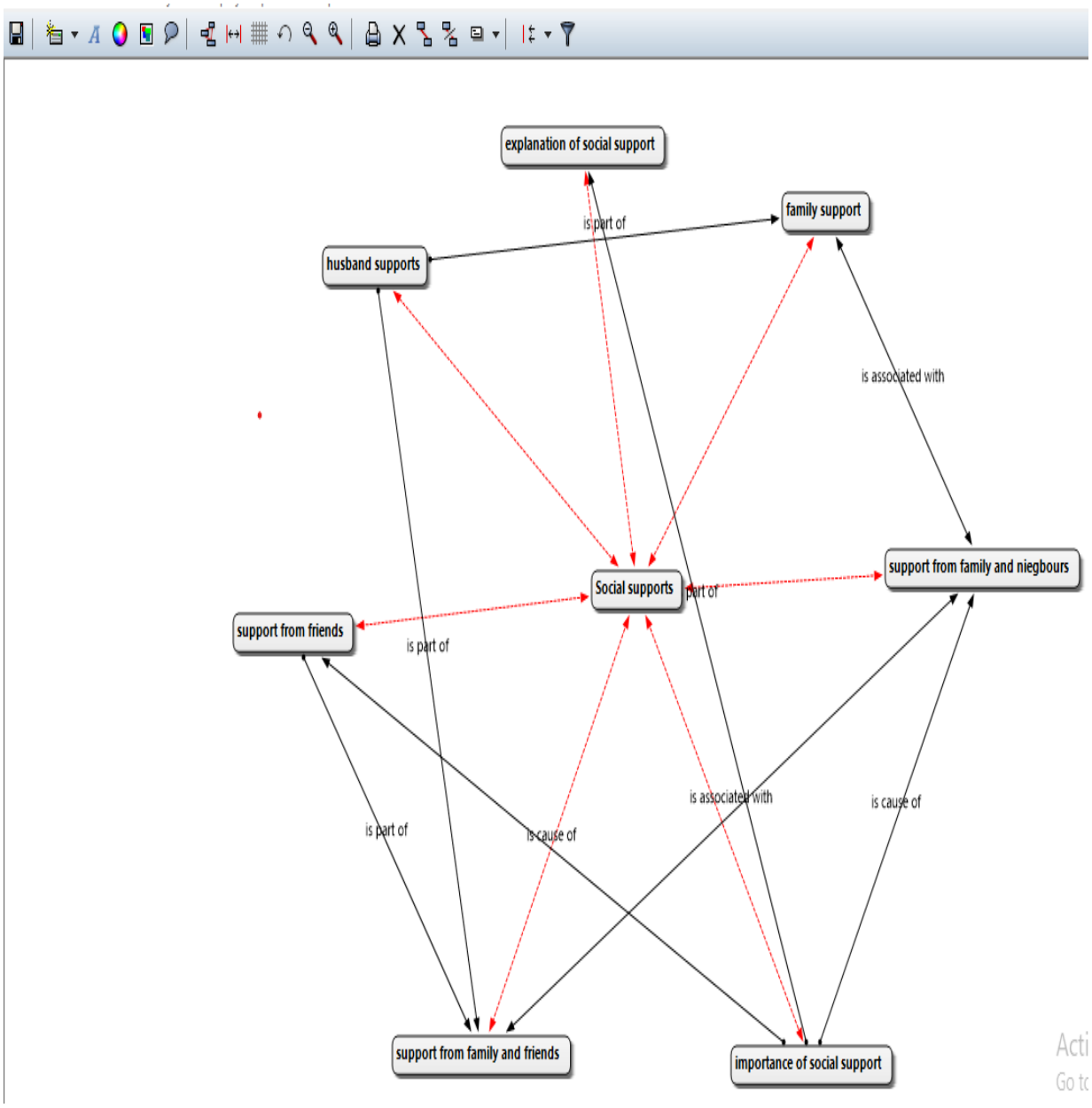

Figure 2: Networks developed during the thematic analysis of the experience of eclamptic women in Felege Hiwot Comprehensive Specialized Hospital, Northwest, Ethiopia, 2021

Annex III: Networks have done during Analysis

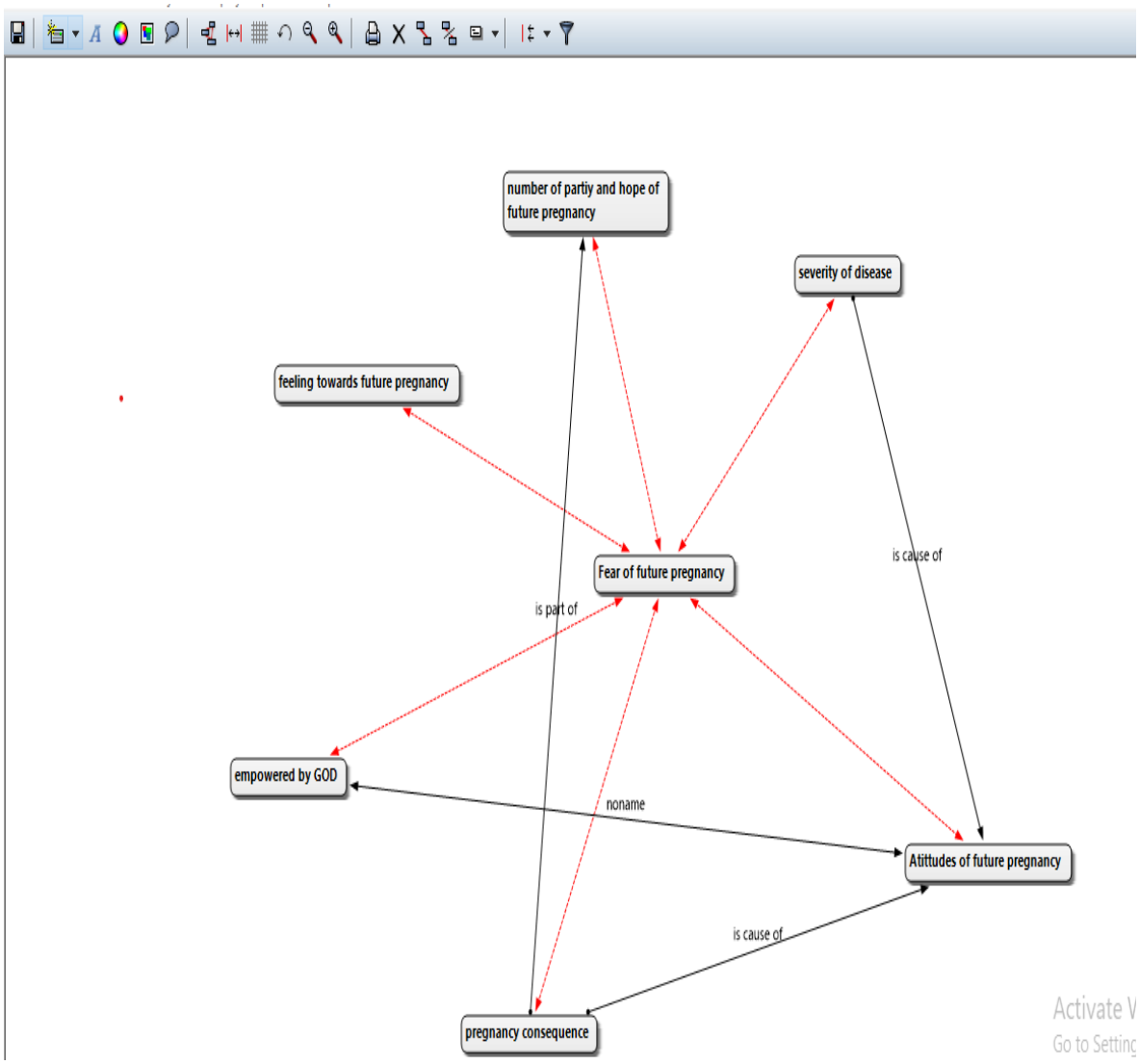

Figure 3: Networks developed during the thematic analysis of an experience of eclamptic women in Felege Hiwot Comprehensive Specialized Hospital, Northwest, Ethiopia, 2021.

ANNEX IV: Demographic characteristics of participants at FHCSH, 2021.

Participants	Age	Marital status	Gravida	Occupation	Educational level	Religion	Residency
p-1	28	Married	II	Housewife	high school	Orthodox Christian	Urban
p-2	21	Married	I	Housewife	high school	Orthodox Christian	Rural
p-3	24	Married	I	Housewife	high school	Orthodox Christian	Urban
p-4	22	Married	I	Teacher	Diploma	Orthodox Christian	Rural
p-5	34	Married	III	Housewife	high school	Orthodox Christian	Urban
p-6	24	Married	I	Housewife	Primary	Orthodox Christian	Rural
p-7	26	Married	I	Housewife	Primary	Orthodox Christian	Rural
p-8	33	Married	II	Housewife	No formal education	Orthodox Christian	Rural
p-9	21	Married	I	Housewife	high school	Orthodox Christian	Rural
p-10	23	Married	I	Housewife	high school	Orthodox Christian	Urban

Annex V: Information sheet (English version)

Good morning/ Good afternoon, my name is Adane Habtie. I am a postgraduate student at Bahir Dar University, College of Medicine and Health Sciences, School of Public Health (SPH), Health Promotion and Behavioral Science department. I am here to collect data for my study entitled "experience of women recovers from eclampsia at Felege Hiwot Comprehensive Specialized Hospital." I have got permission to do this research from Bahir Dar University, SPH research ethics Committee and management bodies of the hospitals. You are selected to participate in the study among women having had eclampsia. The study will be carried out in the form of an interview, audio-recorded, and require about 40 to 60 minutes to be completed. Your participation/ non-participation will have no effect now or in the future on services that you or any member of your family may receive from any service providers. In between, you have the right to terminate the study for any reason, related to the study or personal reason. To achieve the study, your honest and genuine participation by responding to the question prepared is very important and highly appreciated. You have also a right to continue or to discontinue as a participant and there is no influence that insists you participate unless you are a volunteer. We will proceed to the interview after you understand the following points.

The objective of the study: To explore the experience of women who recovered from eclampsia.

Benefit: There will be no financial benefits for you in participating in this research project. However, the information you provide will be very helpful to improve maternal and child care at health institutions.

Harm: The participants do not have any harm by participating in the study

Confidentiality: I would like to assure you that privacy will strictly be maintained throughout. Your responses to any of the questions will not be given to anyone else and no reports of the study will ever identify you. If a report of the results will be published, only Information about the total group will appear.

Persons to contact: If you want to ask the principal investigator about the research at any time, you can contact me through: E-mail: adanehabitie@gmail.com or Tel: 0918372701.

Annex VI: Consent form (English version)

Consent form: I have read the document stated above or it has been read to me by the data collector as I can understand all conditions stated above. Therefore, I have decided to:

1. Agree _____

2. Disagree _____ on participation of the study

And I confirmed it by signature _____

Name of the interviewer: _____Sign. _____ Date of interview_____

Name of the supervisor: _____ Sign. _____ Date_____

Thank You for willingness to participate

Annex VII: Demographic information questionnaire (English form)

Can you tell me some identifying information about yourself, please?

1. Age…….

2. Sex……female…….

3. Marital status:.....

4. Educational status.....

5. Ethnicity ……

6. Religion ……...

7. Monthly income…….... (in birr)

8. Occupational status……

9. Number of births? ----------

10. Family history of eclampsia?----------

Annex VIII: Semi-structured in-depth interview guide (English form)

I have to use this list of questions that will guide us through a conversation about your experience with eclampsia and after recovering from eclampsia. But we don't have to stick to them. If we start talking about something you think is important that's ok. Or, if we run out of things to talk about then I can always use some of these questions to keep the interview going. It doesn't have to be adhered to completely: Instead, the participant's response will guide the question.

Project Name:---------- Interviewer:----------

Fake Name of Participant (ID):---------- Date:----------

Start Time:----------End Time:----------Location:----------

1. Can you tell me how you experienced the disease(eclampsia)?

Probe: what do you mean? Can you explain it more?

2. Think about when you have first sensed the disease. Share with me what this experience was like for you?

3. Could you describe in as much detail as possible your experience of having eclampsia first at home?

4. Could you describe in as much detail as possible your experience of having eclampsia at the health care facility?

5. Would you tell me, how did you feel when you had a seizure, please?

Probe: what were you experiencing physically?

6. Now, think about the first time you have heard about eclampsia. Share with me what this experience was like?

Probe: Did you have any emotional reaction?

7. When you think about the disease (eclampsia) that you faced, what emotions do you feel?

8. What do you know about eclampsia?

9. How would you describe your experience after recovery from eclampsia?

Probe: What did you mean recovering from eclampsia for you? If it held a meaning?

10. What support do you get from your family, friends?

Probe: Can you explain it more?

11. What support do you get from health care providers?

Probe: What sort of education do you want to, describe it? Did you feel received those?

12. When you think of your future pregnancy, what do you feel?

13. What kind of effect do you think your experience has in your life?

14. Is there anything else you would like to share with me? Anything you think I should know about having had eclampsia?

Thank participant for participating in the interview

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የሕብረተሰብ ጤና ትምህርት ቤት

በፈለገ ህይወት ሪፈራል ሆስፒታል በማዋለጃ ክፍል በእርግዝና ወቅት በሚከሰት ከፍተኛ በሆነ የደም ግፊት እራሳቸዉን ስተዉ የወደቁ እናቶች የህይወት ተሞክሮ ምን ይመስላል የሚለውን ለማጥናት የተዘጋጀ መጠይቅ፤ ኢትዮጵያ፣2013

Annex IX: Information sheet (Amharic version)

የመረጃ ቅጽ

እንደምን አደሩ/ዋሉ፤ ስሜ አዳነ ሀብቴ እባላለሁ፤ በባህርዳር ዩኒቨርስቲ የህክምና ና ጤና ሳይንስ ኮሌጅ፣የህብረተሰብ ጤና ትምህርት ቤት፣ የ HEALTH PROMOTION የድህረ ምረቃ ተማሪ ስሆን፤ በዚህ ሰዓት በእርግዝና ወቅት በሚከሰት ከፍተኛ በሆነ የደም ግፊት እራሳቸዉን ስተዉ የወደቁ እናቶች የህይወት ተሞክሮ ምን ይመስላል የሚለውን ጥናት እያደረኩ ስሆን የመጣሁት ለሁለተኛ ድግሪ መመረቂያ በምሰራው ጥናትዊ ፅሁፍ መረጃ ለመሰብሰብ ነዉ። ይህን መረጃ ለመሰብሰብ ከባህርዳር ዩኒቨርስቲ የህብረተሰብ ጤና ትምህርት ቤት፣ የጥናትና ምርምር ስነ ምግባር ኮሚቴ እና ከአማራ ክልል ጤና ቢሮ፤ እንዲሁም ከሆስፒታሎቹ ሃላፊዎች ፈቃድ አግኝቻለው። ይህንንም ጥናት ለማሳካት የእርስዎ ቅንነት የተሞላበት ተሳትፎ ወሳኝነት አለው። በዚህ ጥናት ላይ መሳተፍ፣ በፍቃደኝነት ላይ የተመሰረተ ስለሆነ፤ ስጠይቅዎት በመሃል ጥያቄ መጠየቅ፤ጥያቄ መዝለል፤ብሎም ማስቆም ይችላሉ በቃለ መጠይቁ ወቅት መቅረፀ ድምፅ መረጃ ለመያዝ የምጠቀም ስሆን የሚወስደው ጊዜ ከ 40 ደቂቃ እስከ 1፡00 ሰዓት ነው። በጥናቱ ላለመሳተፍ ከፈለጉ በዚህ ጥናት ያለመሳተፍ ይችላሉ። በዚህ ጥናት ባለመሳተፍዎ ማንኛውንም አገልግሎት ከማግኘት አይከለከሉም ነገር ግን ይህንን ጥናት ዓላማ የተፈለገው ግብ እንዲመታና በጥናቱ መሠረት የሚለዩ የተለያዩ ችግሮችን በመንግሥትና በሌሎች ድጋፍ ሰጪ ድርጅቶች አካላት ትብብር አማካኝነት በጥናቱ የተደረሰባቸውን ችግሮች ለመፍታት እርስዎ እንዲሳተፉ ተጋብዘዋል።

በዚህ የምርምር ፕሮጀክት ለመሳተፍ ከመወሰንዎ በፊት ይህንን የማብራሪያ ቅጽ በጥንቃቄ በመረዳት ጥያቄዎች ካሉዎት ይጠይቁ። በተጨማሪም በጥናቱ መሳተፍ ከጀመሩ በኃላ በማንኛውም ጊዜ ጥያቄዎች ካሉዎት መጠየቅ ይችላሉ።

የምርምር ፕሮጀክቱ ዓላማ:- ከኢክላምፒስያ በሽታ ካገገሙ በኋላ የእናቶች የህይወት ተሞክሮ ምን ይመስላል የሚለውን ለማጥናት የተዘጋጀ ነው።

ጥቅሞች:- የእርስዎ ጥናቱ ላይ መሳተፍ አሁን ለግልዎ የገንዘብ ጥቅም ባይኖረውም፤ የሚሰጡት መረጃ ግን ለጥናቱ መሳካት በጥናቱ በተለያዩ ችግሮች መፍትሄ ሲሰጥ እረስዎ እና ሌሎች ታማሚዎች ተጠቃሚ ይሆናሉ።

ጉዳት:- እርስዎ በጥናቱ ላይ ስለተሳተፉ ከጊዜዎት በስተቀር የሚደርስብዎት ምንም ችግር የለም።

ምስጢር ስለመጠበቅ:- ከዚህ ጥናት የሚገኝ መረጃ በሙሉ በምስጢራዊነት ይጠበቃል።. ለዚህ ጥናት የሚሠበሰበው እርስዎን የሚመለከት መረጃ በማህደር የሚቀመጥ ሲሆን ማህደሩም በስመዎ ሳይሆን በተለየ ኮድ ሲቀመጥ ኮዱ ከዋናው ተመራማሪ ውጭ ለማንም አይገለጽም።

ጥናቱን በተመለከተ ሊብራራልዎት የሚፈልጉት ነገር ካለ መጠየቅ ይችላሉ። ለበለጠ መረጃ የጥናቱን ዋና መሪ በሚከተለዉ አድራሻ ማግኘት ይችላሉ። ኢሜል ፡ adanehabitie@gmail.com ወይም ሞባይል ስልክ ቁጥር ፡ 0918372701.

Annex X: Consent form (Amharic version)

የስምምነት ቅጽ

ከላይ በዝርዝር የተሰጡትን መረጃዎች እና ቅፁን አንብቤዋለሁ ወይም ልረዳ በምችለዉ መልኩ በ መረጃ ሰብሳቢዉ ተነቦልኛል፡፡ ስለሆነም በ ጥናቱ ላይ ስለመሳተፍ የሚከተለዉን ወስኛለሁ

1. ተስማምቻለሁ _____ ይህንንም በፊርማየ አረጋግጣሁ::

2. አልተስማማሁም _____ አመስግኖ ወደ ቀጣይ ተሳታፊ መሄድ

የጠያቂው ስም_____ ፊርማ_____ ቀን _____

የተቆጣጣሪ ስም_____ ፊርማ_____ ቀን _____

Annex XI: Demographic information questionnare (Amharic version)

<u>የስነ-ህዝብመረጃ</u>

1. ዕድሜ----------
2. ፆታ-----ሴት
3. የጋብቻሁኔ:----------
4. የትምህርትደረጃ----------
5. ብሔር----------
6. ሀይማኖት----------
7. የስራ ሁኔታ…….
8. ስንተኛ እርግዝና ነዉ?_____
9. ከዚህ በፊት ይህ አይነት በሽታ ቤተሰብ ዉስጥ ተከስቶ ያዉቃል?

Annex XII: Semi-structured in-depth interview guide (Amharic version)

ይህ መጠይቅ በፈለገ ህይወት ኮምፕህረንሲቭ ስፔሻላይዝድ ሆስፒታል በማዋለጃ ክፍል በእርግዝና ወቅት በሚከሰት ከፍተኛ በሆነ የደም ግፊት እራሳቸዉን ስተዉ የወደቁ እናቶች የህይወት ተሞክሮ ምን ይመስላል የሚለውን ለማጥናት የተዘጋጀ ነዉ::

የጥናቱ ስም: በፈለገ ህይወት ኮምፕህረንሲቭ ስፔሻላይዝድ ሆስፒታል በማዋለጃ ክፍል በእርግዝና ወቅት በሚከሰት ከፍተኛ በሆነ የደም ግፊት እራሳቸዉን ስተዉ የወደቁ እናቶች የህይወት ተሞክሮ ምን ይመስላል

ጠያቂ:---------- የመለያ ቁጥር:---------- ቀን:----------
----------የተጀመረበት ሰአት:---------- ያለቀበት ሰአት:----------ቦታ:----------
----

<u>መጠይቅ</u>

1. በሽታው መጀመሪያ እንደተሰማወት ጊዜ አስቡ :: ይህ ተሞክሮ ለእርስወ ምን ይመስል እንደነበረ ለእኔ ያጋሩኝ ወይም ያጫውቱኝ?
2. ለመጀመሪያ ጊዜ ቤት ላይ ዉስጥ ከበሽታዉ (ኤክላምፕስያ) ጋር የነበርወትን ሁኔታ ወይም ልምድ ያጋሩኝ ወይም ያጫዉቱኝ ?
3. ለመጀመሪያ ጊዜ ሆስፒታል ዉስጥ ከበሽታዉ (ኤክላምፕስያ) ጋር የነበርወትን ሁኔታ ወይም ልምድ ያጋሩኝ ወይም ያጫዉቱኝ ?
4. እባክወን ይንገሩኝ ያን ጊዜ ሲጥልወት ወይም እራስወን ስተዉ ሲወድቁ ምን ተሰማወት ?
5. አሁን ስለ ኤክላምፕሲያ ስለሰሙበት የመጀመሪያ ጊዜ አስቡ :: ይህ ተሞክሮ ምን እንደነበረ ለእኔ ያጋሩኝ?
6. ስለ ኤክላምፕሲያ ምን ያውቃያሉ? እስኪ ይንገሩኝ?
7. ከኤክላምፕሲያ ካገገሙ በኋላ ተሞክሮወትን እንዴት ይገልፀታል/እስኪ ያጫዉቱኝ?
8. ስለገጠመዎት በሽታ (ኤክላምፕሲያ) ሲያስቡ ምን ስሜቶች ይሰማዎታል?
9. ከቤተሰብ ወይም ከጓደኛ ያገኙት ድጋፍ አለ? እስኪ ያጫዉቱኝ?
10. ከጤና ባለሙያወች ያገኙት የህክምና እርዳታ ምን ይመስል ነበር? እስኪ ያጫዉቱኝ?
11. ቀጣይ እርግዝናን ስታስቢ ምን ይሰማሻል?
12. የእርስዎ ተሞክሮ በሕይወትዎ ውስጥ ምን ዓይነት ውጤት አለው ብለው ያስባሉ?
13. ከእኔ ጋር ሊያጋሩኝ የሚፈልጉት ሌላ ነገር አለ? በኤክላምፕሲያ ስለመጠቃት ማወቅ ያለብኝ ነገር አለ?

በቃለ-መጠይቁ ውስጥ ስለተሳተፉ አመሰግናለሁ::

Advisor's Approval Form

BAHIR DAR UNIVERSITY COLLEGE OF MEDICINE AND HEALTH SCIENCES, SCHOOL OF PUBLIC HEALTH DEPARTMENT OF HEALTH PROMOTION AND BEHAVIORAL SCIENCE.

Approval of Thesis Research for Defense

I hereby certify that I have supervised, read, and evaluated this thesis research titled as

EXPERIENCE OF WOMEN RECOVERED FROM ECLAMPSIA AT FELEGE HIWOT COMPREHENSIVE SPECIALIZED REFERRAL HOSPITAL, BAHIR-DAR, NORTHWEST ETHIOPIA: A PHENOMENOLOGICAL STUDY prepared by Adane Habtie under my guidance. I recommend the thesis be submitted for final defense.

Investigator's name : Adane Habtie _ Signature _____

Advisor's name	Signature	Date
1. Prof. Fentie Ambawu	_____	_____
2. Mr. Yosef Wasihun	_____	_____

Declaration

I, the undersigned, declared that this is my original work, has never been presented in this or any other University, and that all the resources and materials used for the research, have been fully acknowledged.

Principal investigator

Name: _____

Signature: _____

Date: _____

Advisors:

Name: _____

Signature: _____

Date: _____

Name: _____

Signature: _____

Date: _____

Department head:

Name_____

Signature: _____

Date: _____

Internal Examiner

Name: _____

Signature: _____

Date: _____