Institute of Health

Department of Population and Family Health

Magnitude of Maternal Health Related Quality of Life and Associated Factors among Post-Partum Women in Jimma Town: A Community-Based Cross Sectional Study

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A Research Paper Submitted to Population and Family Health Department Faculty of Public Health, Institute of Health, Jimma University in Partial Fulfillment for the Requirement for Master's Degree of Public Health in Reproductive Health.

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Abstract

Background: Postpartum period is the six-week period following childbirth during which the woman's body returns almost to its pre-pregnancy state. Women's health-related quality of life during the postpartum period is affected by their living conditions, and they have little information about the long-lasting physical and mental health problems that may result as a consequence of pregnancy, childbirth, and puerperium.

Objective: This study aimed to determine the magnitude of maternal health related quality of life and associated factors among postpartum women in Jimma town: A Community-based Cross Sectional Study, south west Ethiopia 2022.

Methods: Community based cross-sectional study was conducted among 383 postpartum women who are living in Jimma town from May 15 to June 14, 2022. Quantitative data collection method was employed. A systematic random sampling technique was used for quantitative data collection. Descriptive statistics was used to describe the study variables. The bivariate analysis was done to select candidate variables with P<0.25. Then multivariable logistic regression was used to determine factor associated with P-value less than 0.05 with their respective AOR and 95% CI. Finally, a report was presented by the text, figures and tables.

Results: The finding showed that 51.2% of postpartum women had lower level health-related quality of life with the confidence interval of 47.32 to 56.81. The study showed that age group 26-35, ≥ 36 years, lower education of partner's, multiparous women, unplanned pregnancy, births gave at home, gave dead birth, and women didn't have a hospital admission after pregnancy were found to be more likely to have lower health related quality of life.

Conclusions: The finding showed that almost half (51.2%) of postpartum women had a lower level of health-related quality of life. So, the concerned bodies need to give special attention to women's during the postpartum period to prevent lower quality of life.

Keywords: Postpartum, Health related quality of life, maternal health

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Table of Contents

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATION

ANC	Antenatal care
CI	Confidence interval
EPDS	Edinburgh Postnatal Depression Scale
HRQoL:	Health-Related Quality-of-Life
IRB:	Institutional Research Ethics Review Board
MOH:	Minister of Health
PNC:	Postnatal Care
QoL:	Quality of Life
SF-36:	Short form 36 Questions
SPSS:	Statistical Package of Social Science
WHO:	World Health Organization

CHAPTER ONE

INTRODUCTION

1.1. Background

Postpartum period is defined as the six-week period following childbirth during which the woman's body returns almost to its pre-pregnancy state. Post-partum is the fourth stage of labor, which begins after the birth of the baby and can last up to six months. This time is divided into three stages: the acute phase (6-12 hours after delivery), the subacute phase (2-6 weeks after delivery), and the delayed phase (up to 6 months after delivery) (1).

The postpartum period is a crucial time in both the mother's and the infant's lives (2). In acute phase, 50% of maternal deaths occur due to hemorrhage, sepsis, eclampsia and abortion. Majority of maternal and infant deaths occur in the first four weeks of delivery, while 50% of postnatal maternal deaths occur within first 24 hours of delivery (3). Safe motherhood programs suggest that all mothers should receive a healthy checkup within 2 days of delivery (4).

Health quality of life is a term that has been used in numerous researches, mostly in the realm of health care (5). The World Health Organization (WHO) defines quality of life as "an individual's view of their life in relation to their goals, aspirations, standards, and concerns in the context of the culture and value systems in which they live (5,6).

HRQoL is a multidimensional measure of health from the individual's perspective. It focuses on the physical, emotional and social impact that diseases have on individuals and accounts for their goals, expectations, and standards and concerns (5). HRQoL has increasing importance within healthcare for its ability to estimate well-being, the impact of disease and the cost-effectiveness of interventions (7–9). Evidence shows HRQoL is a valid measure of maternal health (10).

Maternal health related quality can be assessing in all stages of life which includes prenatal and postpartum phases of a woman's life, as prenatal and postpartum affects the health status of a woman diversely (9). It is emphasized that changes which are occurring during postpartum period affect the woman's quality of life. Inadequate postpartum surveillance could adversely affect both the quality of life of mothers and babies (11).

Postpartum maternal health care play a fundamental role in the health as well as the quality of life of their children, which is so important to give focus to maternal health during postpartum period (12). Most postpartum women give their focus to the development and health of their unborn child. However, it is important for expecting mothers to have regular prenatal visits not only to ensure the health of their child, but their own health after pregnancy (13).

There are several factors influencing maternal health quality of life during postpartum period. Issues mentioned in the literature such as infant temperament or fussiness, are likely to affect maternal wellbeing (14). Infant colic and poor sleep behavior can give rise to negative emotions in the mother that overshadows the joy of being a mother. Colic is infant fussing and crying that occurs in the infant's second or third week of life, lasts more than 3 h a day and gradually resolves in the third or fourth month (15,16).

Previous study showed that mothers, those who have a colicky baby have more depressive symptoms and are less happy (17). Due to hormonal changes and the duty of caring for the new-born, most women endure considerable sleep difficulties during the postpartum period (18). Postpartum sleep quality is a critical health index and sleep deprivation is the main source of stress, anxiety, and depression for postpartum women (19,20). In addition, women's QoL after childbirth may also be affected by factors related to pregnancy and delivery and their marital relationship (19–21).

Post-partum health care content and significance are criticized as inadequate to meet the health needs of mothers. In Ethiopia, health care providers has more focused on vaginal examination in routine 06 weeks postpartum follow up rather than mother's psychological and physical health (22). Physical, social and psychological impacts of post-partum stage have significant effects on quality of life of mothers during postpartum period. The focused of the previous study was involved in prenatal care, but not postnatal care. Therefore, maternal health related quality of life should be investigated to survive the lives of both mother and infant. To fill this gap this study will try to address the influencing factors for maternal health related quality of life among post-partum women in Jimma Town, South west, Ethiopia by including psychological and social aspects of post-partum women.

1.2 Statement of the problem

Women's health-related quality of life during the postpartum period is affected by their living conditions, reproductive history, and exposure to and use of reproductive health and antenatal care services (23–25). Women's during postpartum period have poor quality of life (QOL), impaired functional status, poor sexual function, anxiety disorders and depression when evaluated in the postpartum period. Low level of HRQoL has been shown to be predictive of short- and long-term hospitalization, morbidity and mortality (7,8).

Postpartum-related morbidities have been reported in studies from several countries(1,2,18). Fatigue has been found to be positively associated with postpartum depression and breastfeeding problems (26). Incontinence, hemorrhoids, constipation, sleeping disorders, and a variety of emotional changes such as depressive symptoms are examples of other conditions that affect mothers' physical and psychological health (27). These health problems not only influence mothers' health but also affect their infants' wellbeing (28). However, these problems are often dismissed by health professionals as "only to be expected". Similarly, such problems might also be neglected by both family members and health professional due to the concentration on child care during the early months (29). So, inadequate postpartum surveillances may adversely affect mothers as well as infants quality of life.

During the postpartum period, the quality of life of women should reflect their perception and satisfaction with their health concerns within their cultural context (13). For mothers who have to take care of themselves, childbirth and the many difficulties in caring for the baby have a negative impact on their quality of life (30). Furthermore, the role and duty of mothers in caring for their newborn baby has a significant impact on women's quality of life during this time (31).

In 2015, an estimated 303,000 maternal death occurred worldwide, with 99 percent of them occurring in developing countries. In Sub-Saharan Africa, two-thirds of maternal deaths occurred, with one-fifth in South Asia. More than 10 percent of these deaths happened during the postpartum period due to health related quality of life. Hemorrhage is responsible for 30-40% of direct maternal mortality in Africa, mostly in the postpartum period (24).

Recent studies have quantified problems, such as mental distress, genital infections, breast problems, physical complaints, pain, sleep problems, urinary incontinence, and anemia (32), occurring during the postpartum period. Many women usually have little information about the long-lasting physical and mental health problems that may result as a consequence of pregnancy, childbirth, and puerperium; therefore, they are unprepared when they face such problems. As a result, their quality-of-life will be compromised for a prolonged period (33).

According to several studies, impaired woman's health-related quality-of-life (HRQoL) after childbirth limits daily activity, decreases self-care ability, impairs child care, causes discontinuation of breastfeeding and the early introduction of solid food to an infant's diet, and increases medical care costs. A mother's HRQoL also affects the health and well-being of the child, with long-term consequences on the child's psychological development (34,35).

In Ethiopia health care professionals are crucially involved in prenatal care; postpartum period is a neglected aspect of women's health care (36). Although a great deal of research has been conducted in recent decades to explore various aspects of postnatal care, more remains to be done (9). Not surprisingly, the content and relevance of postpartum health care have been criticized as inadequate to meet the health needs of mothers.

Even though MOH widely recommended to reducing maternal mortality by improving maternal health services quality (37), still there is maternal death due to health related quality of life during post-partum period in Ethiopia (38). To the best of our knowledge, there are inadequate studies that examined postpartum health related quality of life of Ethiopian women.

Most of the current studies focused on health quality of life associated with certain types of delivery (33) and the other influencing and predicting factors that may affect mothers' health quality are not well investigated. Most of research regarding the postpartum health quality of life has been conducted mostly in the developed countries ((2,39,40) and few in developing countries (41). As noted in the literature there is only one research done in Ethiopia, Arba Minch Town (42), which is limited on physical, and mental health problem. To this end this study will provide a rich picture of the factors influencing maternal heath quality of life. Therefore, the aim of this study is to investigate the influencing factors for maternal health related quality of life among post-partum women in Jimma Town including the physical, psychological, and social related problems.

CHAPTER TWO

2. LITERATURE REVIEW

2.1 The Magnitude of Maternal health related quality of life during postpartum period

More than 150 million women become pregnant in developing countries each year and an estimated 500,000 of them die from pregnancy and postnatal care related causes. Maternal health problems is the main causes for more than seven million mothers to result in stillbirths or infant deaths within the first week of life (10). Maternal death during pregnancy and postpartum period has an impact for economic and social hardship of her family and community (43).

A cross-sectional-study done in 2016 in Iran to assess maternal health-related quality of life and its predicting factors in the postpartum period in Iran showed that women had moderate scores in most of health related quality of life subscales (12). Similarly, a study done in Northeastern Brazil showed that the total score of the scale presented an average of 69.94 with a standard deviation of ±12.29. The study also found that limitation by physical aspects (36.0), vitality (55.9), limitation by emotional aspects (58.6) and pain (59.2) among the lowest HRQOL domains, whereas, functional capacity (69.3), mental health (69.5) and social aspects (70.7) was considered as among the higher scores. The domain with the highest score was general health status (73.0) (44).

A community-based cross-sectional study in Ethiopia in Arba Minch Town showed that the overall HRQoL mean score was 53.7. The finding also revealed that 255 (62.3%) had lower level health-related quality of life (HRQoL). About 46.2% of the study participants had lower physical HRQoL and about 79% of the study participants had lower mental HRQoL. From the eight domains, the lowest mean score was observed in the role emotional dimension with Mean ± SD of 38.09 ±21.34, whereas the highest Mean ± SD score in the vitality dimension was 51.40 ± 7.69. The physical component summary (PCS) Mean ± SD score was higher in Mean ± SD score (49.52 ± 9.34) when compared with the mental component summary (MCS) Mean ± SD score of 40.79 ± 10.90 (42).

Facility based cross-sectional study done in Brazil showed that the mean HRQoL score was 76.37 (SD=16.2). The finding showed that the Physical domain was the highest scoring HRQoL

score, while the Environment domain was the lowest scoring area. Results also revealed that mothers rated their overall quality of life as follows: very good (10%), good (59%), poor (3%), very poor (2%) and neither poor nor good (27%),(45).

2.2 Factors Influencing Maternal Health Related Quality of Life among Post-Partum Women

Postpartum health related quality of life (HRQOL) is potentially influenced by socio-demographic, obstetric and psychological related factors parameters.

2.2.1 Socio-demographic related factors

According to population based study findings of 19,291 in Norway, women aged 32 and over had a higher risk of developing psychological distress during pregnancy and in the first 18 months of postpartum compared to women aged 25-31 years (46). In contrast to this result, a study conducted with Spanish women in the postpartum period highlighted that the age of the mother greater than or equal to 35 years was not a factor related to quality of life. Similarly study done in Northeastern Brazil (40) identified that women aged less than 29 years were related to the best scores in the HRQOL assessment when compared with older women.

The fact that the pregnant women had or did not have a paid occupation presented significance in the functional capacity domain, evidencing better averages, especially for those who had paid occupation, denoting a better HRQOL for women with income. In the present study, most women had low incomes (46). A systematic review also indicated that low income and low schooling appear as factors associated with health related quality of life (47).

Several previous studies investigating women's HRQoL during the postpartum period have demonstrated the influence of household wealth or income or other closely related indicators, such as employment and standard of living (11). In the model using the EQ-VAS as the outcome, marital status was also significantly associated with HRQoL. Other studies have reported findings a similar result regarding marital status. However, notably, marital status is not the same among women in different societies (48).

Several scholars have argued that rural populations are less likely to be educated and have limited access to infrastructures; therefore, these populations are likely to have lower HRQoL (41). Other scholars argue that life in urban areas is more stressful, translating to a higher

prevalence of anxiety, depression, or other mental health problems. This hypothesis was supported by other finding (49) showed that anxiety or depression was the dimension with the widest gap between the rural and urban women as follows: on average, 85% of the women living in rural areas reported not having any anxiety or depression problems, compared with 70% of the women living in urban areas (49).

Regarding the number of children, a study done in Rwanda, show that women with six or more children had a significantly lower HRQoL than women with fewer children using the EQ-5D. A study done in Turkey (50) also established a negative association between the number of children and women's HRQoL during 12 months postpartum (46).

Other previous study (27,51) also showed that there is association between women's QoL and age of mothers. Similarly, other study also showed that women aged younger than 30 years had better QoL in three subscales of SF-36 (52). However, in a study conducted among Brazilian women there was no difference between QoL scores of postpartum women in different age groups (48).

As another finding of the study, employed women had better score in half of HRQoL subscales than housewife women. However, a study done in Iran showed that there was no difference between postpartum women's QoL and their employment. In another study which examined health of employed women at 5 weeks postpartum most of them reported moderate QoL(53).

A cross-sectional study done in Brazil found that there is a significant relationship between the breastfeeding efficacy and HRQoL of postpartum women. The findings of a systematic review also showed a negative association among breastfeeding and QoL (54).

Among the general characteristics of the participants, occupation was found to be a factor affecting the QoL of postpartum women. Postpartum women with jobs have a high QoL as they can continue their social life and economic independent. However, various studies have reported different results, and as such, a study that confirms the difference in postpartum women's QoL in consideration of their job and income level is needed (55).

2.2.2 Obstetric factors

Regarding pregnancy planning, a study conducted with 357 women proved that non-acceptance of pregnancy was associated with lower HRQOL scores (40). Similarly the other study showed that the women in the postpartum period who started prenatal care until the 12th week of gestation presented higher means of HRQOL in almost all domains, except in vitality and social and emotional aspects, thus pointing to the importance of starting prenatal care earlier (56).

Research shows that starting prenatal care early only affects 75% of women, being lower for younger, black women and the North and Northeast regions of the country (57). Regarding the analysis of the professional who performed the delivery, it was found that, for the most part, the vaginal delivery performed by a nurse obtained better averages than that performed by a physician, with statistical significance in three domains (pain, vitality and mental health). On the other hand, the functional capacity domain obtained a higher mean in the normal delivery assisted by a physician (76.01), evidencing a better HRQOL, when compared to the others, but without statistical significance. In the present study, higher scores related to vaginal delivery have already been evidenced in the initial postpartum period. The evaluation of this domain made it possible to recognize the willingness of patients to perform daily activities; however women assisted by nurses had better means, demonstrating more vitality (58–60).

Regarding complications, in the general health status domain, there was an association with the absence of complications, denoting a relevant aspect for HRQOL. Thus, it is possible to reflect on the importance, even in prenatal care, of improving care with appropriate actions for the prevention and monitoring of possible complications, identifying those women with the potential of developing more serious future complications, directly interfering in their quality of care life (48).Women who planned pregnancy had better HRQOL scores among postpartum women, as compared to women's didn't plan for pregnancy, meaning that those who planned the pregnancy reported less pain, with statistical significance in this domain (55).

In a cross-sectional study conducted with 361 puerperal women, the preference for vaginal delivery by 77.6% of women was verified, being one of the main reasons for better postpartum recovery when compared to cesarean delivery (2).

A cross-sectional study done in China concluded that women who received antenatal education had higher levels of happiness, satisfaction, and overall QoL and health during the first postpartum year (27). Similarly, study done in Brazil concluded that women who attended more antenatal care visits had better HRQoL during the postpartum period in a Brazilian population (12). However, study done in Rwanda argued that the effectiveness of antenatal care in reducing maternal morbidity and mortality is uncertain in low-income countries despite the convincing evidence in high-income countries due to the shortcomings in the provisions and use of the service (49). Thus, the effectiveness of antenatal care in low-income countries depends on how well this service is provided and the availability of other services, such as obstetric care (61).

A cross-sectional study done Mozambique (36) showed that in general women with normal vaginal delivery had better quality of life than those with cesarean section. However, the study in Pakistan showed that there was no difference between QoL scores after a cesarean section and vaginal delivery (62).

A cross-sectional study in Iran showed that women who gave birth more than 3 months ago had higher QoL scores in both bodily pain and role physical subscales. A similar study by Wang et al. (2013) (60) who reported improvement of postpartum physical functioning over time (51).

2.2.3 Social and psychological related factor

A cross-sectional study done in 2018 in Rwanda showed that having good social support positively affects women's HRQoL during the first postpartum year. Similarly several other studies investigating social support as a predictor of the HRQoL during the postpartum period (61-62),. Furthermore, of the five EQ-5D domains, anxiety or depression had the highest proportion of women reporting moderate or severe problems. Social support after giving birth is particularly important in the Rwandan culture. Considering the numerous practices by family and friends that comfort women during the postpartum period, new mothers find it challenging to cope with the situation with inadequate social support (8)..

Cohort Study done in Norwagian indicated that positive emotions such as feelings of joy of motherhood are an important variable in maternal overall QoL (57). Similar, study done in Norwegian showed that psychological symptoms and emotions influence physical or social functioning, role functioning, mental health and general health perceptions (67). Thus, the

feelings of joy mothers experience as a result of having children are likely to contribute to their global happiness. Indeed, joy and positive emotions in the parent-child interaction have been associated with positive outcomes for the child. A majority of studies emphasize the postpartum period as a particularly vulnerable time during which women are at increased risk of mental disorders (8,53) and that postpartum depression has negative consequences on maternal QoL (57).

Factors suggested by other studies as predictors of better postpartum mental health included social support, better preconception health, no sign of prenatal mood problems, and having a baby girl (27). A cross-sectional study done in Rwanda showed that women who were employed perceived having better general health than those who were unemployed (60).

Enhancing the participation of postpartum mothers in the nature of their care may lead to better provision of health care and improvement in their QoL. Current conventionally postpartum care, such as routine examination of vagina, blood pressure, body temperature, and family planning consultation, was related to health and social issues including physical and mental health as well as considering social and cultural issues (65).

Previous studies have reported that postpartum depression reduces QoL in terms of physical and mental health (3,26,53). Postpartum depression also tends to be exacerbated by postpartum fatigue or the burden of care for newborns in the early postpartum period, and it is highly likely to progress from mild depression to severe depression (67-68).

After giving birth, women feel tired throughout the postpartum period, especially for those who have difficulty adapting to the changed environment (68). Postpartum fatigue is a common symptom that occurs in 27% to 39% of new mothers within one month after childbirth [9], and is especially the highest in the early postpartum period (69). Women feel more easily fatigued amid changes in their emotional mood, such as the case in postpartum depression; moreover, the level of fatigue depends on the baby's sleep or lactation status. Postpartum fatigue also negatively affects the HRQoL of not only women but also their families (70).

2.3 Conceptual framework

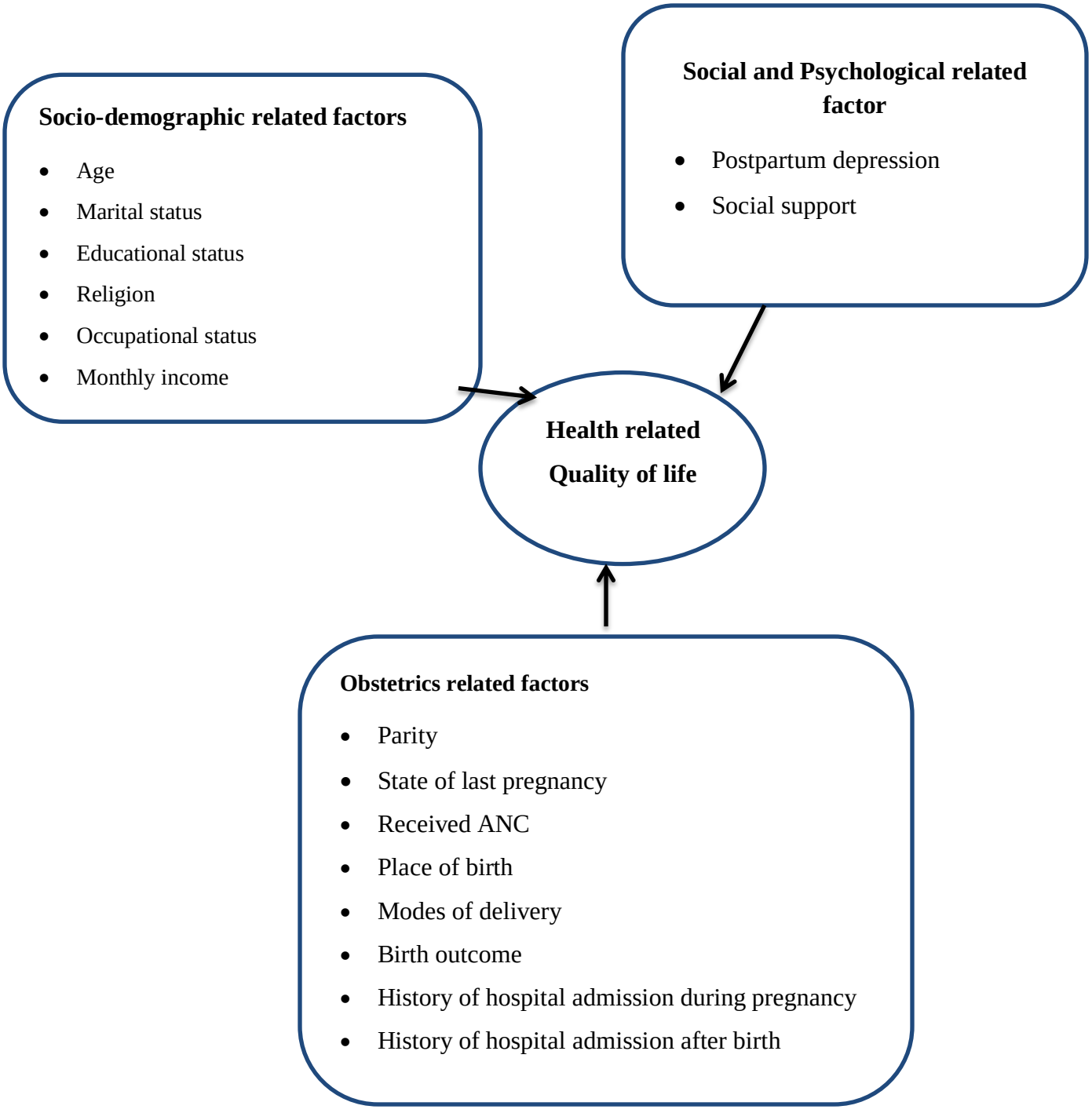

Figure 1: Conceptual framework

2.4 Significance of the Study

With the devolution of health to the counties there is needed to have local data to support country planning. Currently, there is no existed data that describes the maternal health related quality of life during post-partum period especially in Jimma town. Therefore, this study will serve as an insight for the modification of plans and policies for future development regarding women's health related quality of life during postpartum period.

In using the findings of this study, health care providers will be able to understand the factors that influence women's health related quality of life. The study shall also add to the body of knowledge in the field of maternal health. It was therefore hoped that the study could be used as baseline data to continually evaluate of women's health related quality of life during postpartum period.

This study will provide information on factors influencing maternal health related quality of life among post-partum women in Jimma Town. It will be a baseline for further researchers who are interested for working on health related maternal health related quality of life

CHAPTER THREE

OBJECTIVES

3.1 General Objectives

The aim of this study was to determine the magnitude of maternal health related quality of life and the associated factors among post-partum women in Jimma Town

3.2 Specific Objectives

- ✓ To determine the magnitude of maternal health related quality of life among post-partum women in Jimma town.
- ✓ To identify the associated factors for maternal health related quality of life among post-partum women in Jimma Town.

CHAPTER FOUR

METHODS AND MATERIALS

4.1 Study area and period

The study was conducted in Jimma town of Oromia regional state which is located at 357 km to South West of the national capital, Addis Ababa. Based on the 2013 Census projection by the Central Statistical Agency of Ethiopia (CSA), the total population of Jimma town in 2017 is 195,228, of whom 97,359 are men and 97,969 are women (71). The town consists 17 kebeles (administrative units in Ethiopia) of which 13 are urban and 4 of them are rural kebeles. There are two hospitals, four health centers, 34 drug store, 113 clinics including private and non-governmental organizations and 15 health posts in the town (72). The study was conducted from May 15 to June 14, 2022 to determine the magnitude and influencing factors for maternal health related quality of life of among postpartum women in Jimma town.

4.2 Study design

Community based cross sectional study using quantitative data collection method was conducted.

4.3 Study Population

4.3.1 Source population

All postpartum women who were living in Jimma town were considered as the source population.

4.3.2 Study Population

The study population was a randomly selected postpartum woman and who give birth in the past 6 months in Jimma town.

4.4 Inclusion and exclusion criteria

4.4.1 Inclusion criteria

All postpartum women who are living in Jimma town who give birth in the past 6 months in Jimma town were included.

4.4.2 Exclusion criteria

Postpartum women those who had a mental illness, and those who had been living in the study area for less than 6 months were excluded.

4.5 Sample size determination

The sample size was calculated using the single population approach with the assumption of 95% confidence interval (CI), 5% marginal of error, considering 62.3% of post-partum women reported lower level health-related quality of life from related study in Arba Minch town, Gamo Zone (42). Then the sample size was calculated as follows:

$$n = \frac{(Z_{\alpha/2})^2 p(1-p)}{d^2} = \frac{(1.96)^2\ 0.623 \times 0.377}{0.05^2} = 361$$

Where n= minimum sample size required for the study, d= margin of error= 0.05, P is proportion of maternal health-related quality of life, $Z_{\alpha/2}$ value of standard normal distribution (z =1.96) with confidence interval of 95% and α is 0.05 and adding a 10% non-response rate which gives a final sample size of 397.

Sample size calculation for second objectives

To determine the associated factors for maternal health related quality of life among post-partum women in Jimma Town, the sample size was calculated by using Epi info 7 with assumption of 95% confidence interval and 80% power.

Variables	Ratio (unexposed : exposed)	% of outcome among non-exposed	OR	Confidence interval	Power	Sample size	Using Non response rate 10%	References
Postpartum depression	1	80.4	5	95%	80%	172	189	56
Hospital admission during pregnancy	1	60.4	0.594	95%	80%	190	209	51

Since, the sample size calculated using the single population approach is high, then the subsequent report was based on the total sample of 397.

4.6 Sampling procedure

In Jimma town, there are 17 kebeles. Among these, about 7 or 41.2% kebeles (Ginjo Guduruu, Mendera qochi, Aweytu mandaraa, Bosaa Kitto, Booree, Hermata Mantiina and Bocho Booree) were randomly selected using the lottery method as representative (72). Then, based on the estimated 6 months' total birth report obtained from the Jimma town health bureau; the estimated number of post-partum women in the seven kebeles was calculated as given in figure below. Then sample was allocated proportionally to each Kebele. Finally, the participants were selected through systematic random sampling using the health extension workers' birth register as a frame. Systematic sampling was preferred for its simplicity to apply from the register list; all women were selected as Figure 1 below:

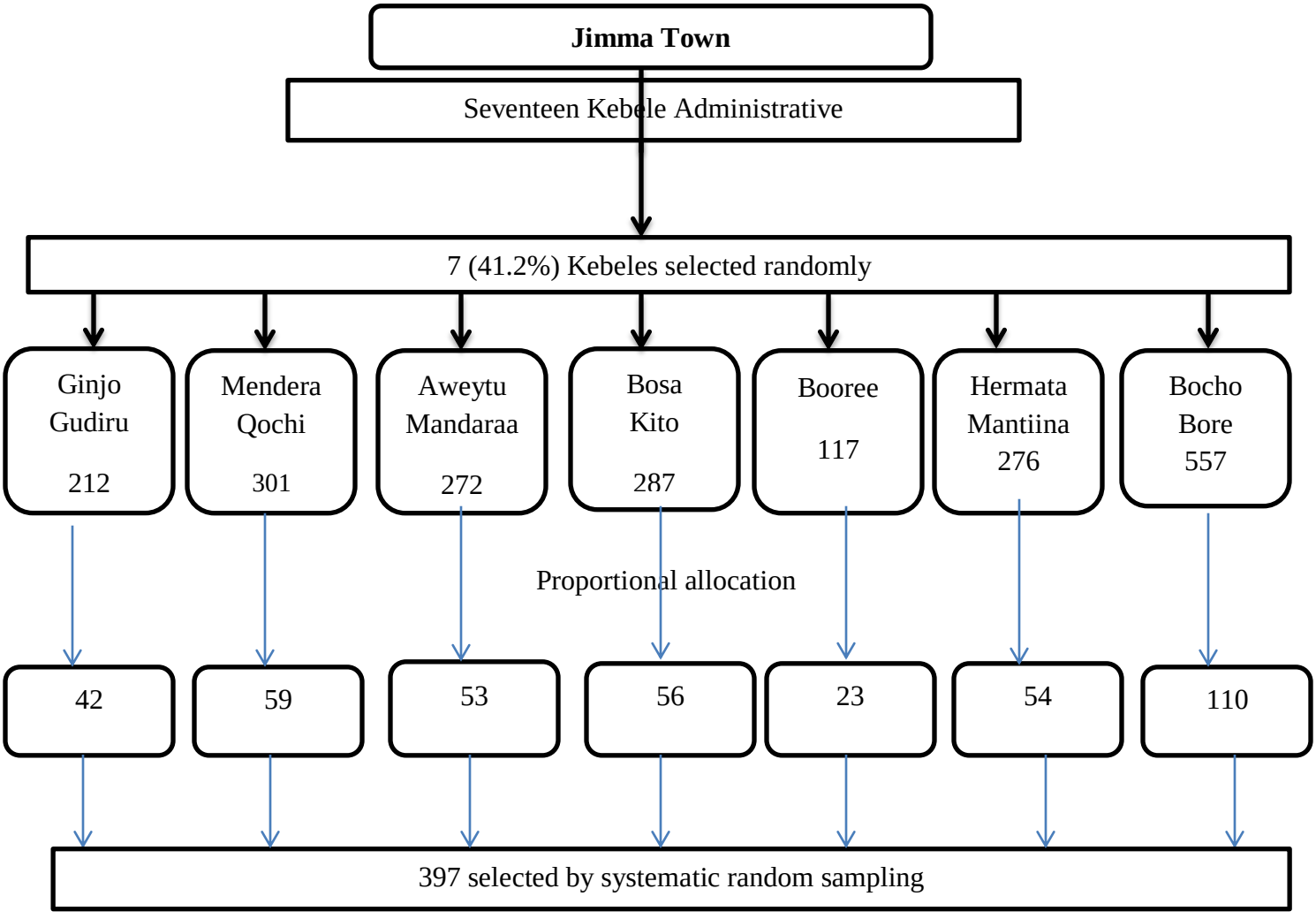

Figure 2: Sampling Procedure

4.7 Data Collection Procedure

4.7.1 Data collection instrument

Socio-demographics and obstetrics-related variables was collected using a structured questionnaire adapted from different peer-reviewed published works (8,57,63–65). Social support, psychological depression and quality of-life health-related questions was used a standard tools (73). The questionnaire has four parts: socio-demographics, obstetrics-related characteristics, social and psychological related factors and quality of-life health-related characteristics.

4.7.2 Data collection personnel

Quantitative data was collected by trained seven Bachelor's degree holder nurses and supervised by two Public health officers.

4.8 Study Variable

4.8.1 Dependent Variable

Maternal Health related quality of life

4.8.2 Independent variable

Socio-demographic related factors

- Age
- Marital status
- Educational status
- Religion
- Occupational status
- Monthly income

Obstetrics related factors

- Parity
- State of last pregnancy
- Received ANC
- Place of birth

- Mode of delivery
- Birth outcome
- History of hospital admission during pregnancy
- History of hospital admission after birth

Social and Psychological factor

- Postpartum depression
- Social support

4.9 Measurement

Domain score was calculated by summing up each item under each domain. Then each raw scale score was transformed from 0 to 100 (0–100 scale) by using the formula of transformed scale = $\frac{Actual\ raw\ score - lower\ possible\ score}{Possible\ raw\ score\ range} \times 100$ (73)

Health related quality of life is measured using MOS SF-36, which was validated and translated for Ethiopia by a validation study (73,74). The SF-36 questionnaire is capable to evaluate the overall health related quality of postpartum mothers. This tool has 36 items, eight domains, and two component summaries. The first two items measure the overall perception of the quality-of-life and change in the overall health status. Then the arithmetic average of the transformed score of the eight domains was calculated and the participant who scored greater than or equal to the standardized mean value of 50 was considered as high quality of life.

Postpartum Partum depression is measured using the Edinburgh Postnatal Depression Scale (EPDS). According to the EDPS, study participants who scored participants who scored greater than or equal to the standardized mean value of considered as having postpartum depression (75)

Social support variable was constructed from six questions (SSQ6) regarding the respondents' access to three main types of social support, i.e., Appraisal Support, Belonging Support, and Tangible Support, which are often referenced in the literature (76). The responses were dichotomized, given the values 0 (definitely false or probably false) or 1 (probably true or definitely true). Then the respondents' responses were computed to get the total score. Those

study participants whose scores were equal to the mean and above the mean of the social support questions were considered to be they have a social support.

4.10 Operational definition

Overall Health related quality of life mean score was the arithmetic average of the transformed score of the eight domains.(74)

Higher health related quality of life was defined as participants who scored greater than or equal to the standardized mean value of 50. (73)

Lower health related quality of life was defined as participants who scored less than the standardized mean value of 50. (73)

4.11 Method of Data processing and Analysis

The filled questionnaire was checked by health professionals to make sure that they are complete. The collected data was checked for completeness, coded, and entered into Epi-data version 3.1 and exported to SPSS version 26 and further cleaning was done by running frequencies for each variable to identify and manage outliers. Discriptive statistics like measures of central tendency and measures of dispersion for continuous variables was computed. Frequency distribution was done for categorical data. The bivariate analysis was done to select candidate variables with $P<0.25$. Then the candidate variable was entered into multivariable analysis to identify factors associated with the outcome variable and control for confounders. Multi-collinearity was conducted to check for collinearity among the independent variables using the checked correlation matrix. Model adequacy was checked by Hosmer & Lemeshow goodness of test (P-value >0.05). Multivariable logistic regression was used to determine factor associated with P-value less than 0.05 with their respective AOR and 95% CI. Finally, a report was presented by the text, figures and tables.

4.12 Data quality assurance

To achieve good data quality, the structured pre-tested questionnaire was prepared in English and then translated into Amharic and Afan Oromo language for simplicity and then back translated to English language for its consistency by two different language expert individuals who speak

English, Afan Oromo and Amharic. To check for consistency, the questionnaire was further translated from Afan Oromo and Amharic language to English by another person.

Data was collected by trained data collector means those take two-day training about the objective, the process of data collection and field ethics and pretest of the instrument was done before the actual data collection. For this: an investigators, supervisors and data collector was taken a part in the pre-test of the survey questionnaire among 5% of the study subjects. Necessary modifications and corrections will be made for the standardization of the tool. The selected and trained supervisors were supervising the data collectors closely.

4.13 Ethical considerations

Ethical clearance was obtained from the Institutional Research Ethics Review Board (IRB) of institute of health of Jimma University. Before the fieldwork, necessary communications about the overall purpose of the study was made with the town administrative bodies. Verbal assent and permission was taken from families or health professionals if families are not available and written consent was be taken after explaining the purpose of the study, the harm and the benefit, the confidentiality, and the rights of the subjects. To maintain confidentiality, no personal identifier was used on data collection forms and the recorded data was accessed by a third person, except the principal investigators. A participant was informed that they have the full right to discontinue or refuse to participate in the study.

4.14 Dissemination plan

The results of this study will be presented to Jimma University, population and family health department. The study result will be given to the Jimma Town Health Bureau. It will also be communicated to Jimma Town hospitals and health centers. Finally, attempts will be made to present the results on scientific conferences and to publish on peer-reviewed scientific journals.

CHAPTER FIVE

5. RESULTS

5.1 Socio-demographic related characteristics

Out of 397 eligible post-partum mothers, 383 were participated in this study, which made a response rate of 96.47%. Out of 383 mothers, majority 85.4% of them were married. The age of the mothers included in this study ranged between 18 and 45 years with mean age of 30.16(SD=±4.95) years. The summery result showed that among the total participants, 67 (17.5%), 246 (64.2%), and 70 (18.3%) were between the age of 16-25 years, 26-35 years, and ≥ 36 years old respectively.

Out of the total, majority of the study participants had elementary education (46.2%). While 8.4%, 23.8%, and 21.7% of them had no formal education, secondary education, and higher education respectively. Table 5.1 also showed that 7.3%, 39.2%, 28.7%, and 24.8% of maternal partners had no formal education, elementary education, secondary education, and higher education respectively.

Among the total, 24.3%, 6%, 28.7%, 23.8% and 17.2% of the study participants had worked as governmental institutions, NGO, self-employee, daily labor, and house wife respectively. The summary information from the table showed that the majority (36.8%) of women monthly income was between 2000-3499 birr. Correspondingly, 24.0%, 27.4% and 11.7% of women's monthly income were between <2000 birr, between 35000 to 4999 birr, and ≥5000 birr respectively.

Among the total, 23.2%, 35.0%, 37.9%, and 3.9% of the study participants followed Orthodox, Muslim, Protestant, and Other religions, respectively. Table 5.1 also showed that 58.5% of the study participants had other children, and the remaining 41.5% of them had no other children's. Among participants having children, 39.7%, 50% and 10.3% of women's had 1-2 children, 3-4 children, and 5 children respectively.

Table 5.1: Socio-demographic related characteristics

Factors	Category	Frequency	Percent (%)
Age	16-25 years	67	17.5
	26-35 years	246	64.2
	36 years & above	70	18.3
Marital Status	Single	8	2.1
	Married	327	85.4
	Divorced	32	8.4
	Separated	16	4.2
Educational Level	Non formal education	32	8.4
	Elementary	177	46.2
	Secondary	91	23.8
	Higher	83	21.7
Partners Educational Level	Non formal education	28	7.3
	Elementary	150	39.2
	Secondary	110	28.7
	Higher	95	24.8
Occupation	Governmental	93	24.3
	NGO	23	6.0
	Self-employee	110	28.7
	Daily labor	91	23.8
	House wife	66	17.2
Monthly Income	< 2000 ETB	92	24.0
	2000-3499 ETB	141	36.8
	3500-4999 ETB	105	27.4
	≥ 5000 ETB	45	11.7
Religion	Orthodox	89	23.2
	Muslim	134	35.0
	Protestant	145	37.9
	Other	15	3.9
Had other children	Yes	224	58.5
	No	159	41.5
Number of Children	1-2	89	39.7
	3-4	112	50
	5	23	10.3

5.2 Obstetrics related characteristics

The major obstetrics related characteristics of the respondents are presented in Table 5.2. Two hundred sixty (67.9%) of the participants were prim-parous, while 32.1% of them were multiparous. According the summery result shown in the table, 91.6% of the subject's last

pregnancy was planned, while 8.4% of the subject's last pregnancy was not planned. Likewise, the majority, 310 (80.9%) of the study participants received ANC during the last pregnancy and 73 (19.1%) of them were didn't received ANC during the last pregnancy.

Among the total, the majority 310 (80.9%) of the study subjects gave birth at health institution, while, 19.1% of them gave birth at home. According to the table it showed that 314 (82.0%) of the study participants were delivered by vaginal and 18.0% of them were delivered by cesarean section. Similarly, among the total, about 322 (84.1%) of mother's gave live birth, while 61 (15.9%) of mother's gave dead birth.

Table 5.2 showed that about 96.1% of the study participants had a hospitalization history and the remaining 3.9% of the participants hadn't hospitalization history during pregnancy. Similarly, 97.9% of women had a hospital admission after pregnancy, while 2.1% of women didn't have a hospital admission after pregnancy. The summary results from table 5.2 showed that 41.5% of the participants were depressed and 58.5% of them were not depressed on postpartum. Furthermore, 75.5% of the study subjects get social support and 24.5% of the subjects didn't get social support during the postpartum period.

Table 5.2: Obstetrics related characteristics

Factors	**Category**	**Frequency**	**Percent (%)**
Parity	Prim-parous	260	67.9
	Multiparous	123	32.1
State of last Pregnancy	Planned	351	91.6
	Unplanned	32	8.4
Received ANC	Yes	310	80.9
	No	73	19.1
Place of Birth	Home	73	19.1
	Health institution	310	80.9
Mode of Delivery	Vaginal	314	82.0
	Cesarean	69	18.0
Birth outcome	Alive	322	84.1
	Dead	61	15.9
Hospital admission during pregnancy	Yes	375	97.9
	No	8	2.1
Hospital admission after pregnancy	Yes	368	96.1
	No	15	3.9

Postpartum Depression	Depressed	159	41.5
	Not depressed	224	58.5
Social support	No	94	24.5
	Yes	289	75.5

5.3: Magnitude of maternal health related quality of life among post-partum women

The magnitude of maternal health related quality of life among post-partum women was shown in figure 1. The figure showed about 196(51.2%) of postpartum women's had lower level health-related quality of life. While, 187 (48.8%) of them had higher level of health-related quality of life**.**

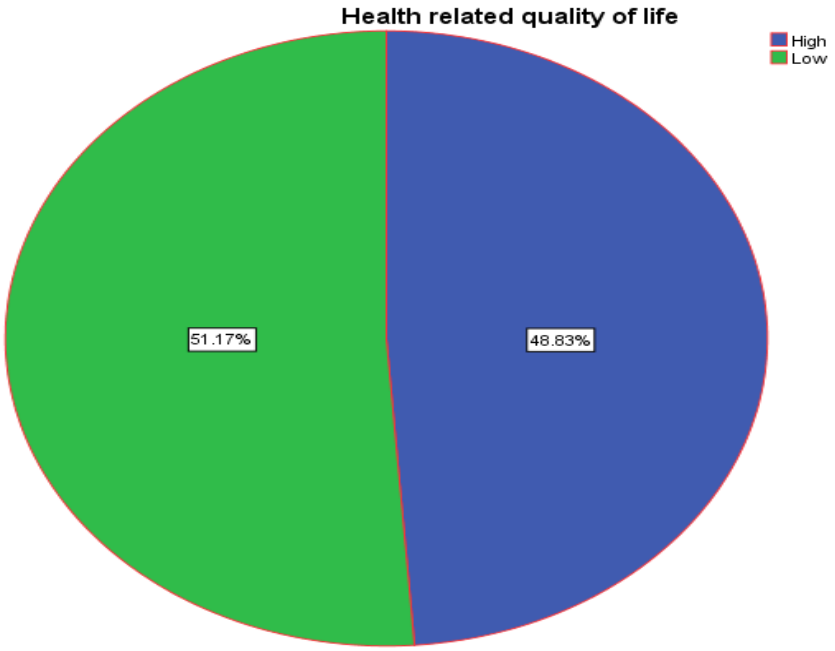

Figure 3: Pie charts for health related quality of life

Table 5.3 showed that the eight domains of health related quality of life obtained from short form 36 Questions. According to the table the lowest mean score was recorded in body pain with Mean±SD of 24.58±30.975, while the highest score was recorded in physical functioning with Mean±SD of 65.75±26.56. The summery result shown from the table also revealed that the overall HRQoL mean score of 50.58 and SD of 11.45.

Table 5.3: Mean Score of SF-36 HRQoL Summary Score of Study Participant

SF-36 HRQol	Mean ± SD	95% CI
Physical functioning	65.75±26.56	(63.08, 68.43)
Role limitations due to physical health	57.18±40.33	(53.12, 61.23)
Role limitations due to emotional problems	51.56±44.57	(47.08, 56.04)
Energy/fatigue	58.81±19.29	(56.87, 60.75)
Emotional well-being	44.33±17.91	(42.53, 46.13)
Social functioning	51.43±24.93	(48.93, 53.94)
Boy Pain	24.58±30.97	(21.47, 27.69)
General health	51.01±21.27	(48.87, 53.14)
Overall Quality of life	50.58±11.45	(49.4`3, 51,73)

5.4 Binary logistic regression analysis

5.4.1 Assessment of goodness of fit of the model

The result presented in table 5.4 shows that the p-value is greater than 0.05, then fails to reject the null hypothesis, and it is stated that the logistic model is good for the data set.

Table 5.4: Hosmer and Lemeshow Test

Chi-square	Df	Sig.
13.084	8	.109

5.4.2 Results of bivariate and multivariable binary logistic regression analysis

Bivariate binary logistic regression analysis and cross tabulation was run to identify the candidate variables for multivariable binary logistic regression analysis. Factors with p-value <0.25 during bivariate binary regression analysis were selected for multivariable logistic regression analysis. Thus, bivariate logistic regression analysis factors like age, partner's education, having other children, parity, state of pregnancy, ANC follow up, place of birth, birth outcome, hospital admission durong pregnancy, and postpartum depression were selected as a candidate for multivariable binary logistic regression analysis (see in appendix).

Consequently, the findings of multivariable logistic regression in table 4.5 revealed that age, education level of women partner, parity, state of last pregnancy, ANC follow up, birth outcome, and hospital admission during pregnancy had significantly associated with lower maternal health-related quality of life ($p \leq 0.05$).

The model presented in table 4.5 revealed that postpartum women aged between 16-25 years were 10.09 times more likely to have lower health related quality of life (HRQoL) compared to the age group ≥ 36 years (AOR=10.09; 95% CI: 3.45,29.51). Similarly, the finding also showed that partner's education had a significant effect on low maternal HRQoL. The postpartum women partners' who didn't attend formal education were 3.67 times more likely to have lower health related quality of life compared with women's partners who attended higher education keeping the other factors constant in the model (AOR= 3.67; 95% CI: 1.25, 10.72).

The finding showed that multiparous woman had 2.21 times more likely to have lower health related quality of life compared to women's with prim parous (AOR=2.21 ; 95% CI: 1.14, 4.29). Similarly, unplanned pregnant women were 7.36 times more likely to have lower health related quality of life compared to women's with planned on pregnancy holding the other factors constant in the model (AOR=7.36; 95% CI: 1.98, 27.37).

According to the finding birth outcome was also significantly associated with HRQoL. Women's gave dead birth were 3.15 times more likely to have lower health related quality of life than women who gave live birth (AOR=3.15; 95% CI: 1.54, 6.42). Moreover, postpartum women who didn't have a hospital admission during pregnancy were more likely to have lower health related quality of life than women who had hospital admission after pregnancy holding the other factors constant in the model (AOR=5.50; 95% CI:3.863,26.3) (see Table 5.4).

Table 5.5: Bivariate and multivariate binary logistic regression analysis of factors associated with overall HRQoL of study participants.

Variable	Categories	Overall HRQoL		COR(95% CI)	AOR (95% CI)	P-val
		Low(%)	High(%)			
Age	16-25 years	56(83.6)	11(16.4)	5.70(2.56,12.68)	10.09(3.45,29.51)	.000
	26-35 years	107(43.5)	139(56.5)	.863(.507,1.47)	1.11(.580,2.123)	.753
	36 years & above	33(47.1)	37(52.9)	1		
Partners educational level	Non formal	22(78.6)	6(21.4)	3.74(1.39, 10.06)	3.67(1.25,10.72)	.017
	Elementary	72(48.)	78(52)	.943(.564,1.57)	.913(.518,1.61)	.754
	Secondary	55(50)	55(50)	1.02(.590,1.76)	.957(.522,1.75)	.887
	Higher educator	47(49.5)	48(50.5)	1		
Had other children	Yes	128(57.1)	96(42.9)	1.78 (1.18, 2.69)	1.80(.971,3.36)	.062
	No	68(42.8)	91(57.2)	1		
Parity	Prim-parous	70(56.9)	53(43.1)	1		
	Multiparous	126(48.5)	134(51.5)	.712(.462,1.09)	2.21(1.14,4.29)	.019
State of last Pregnancy	Planned	175(49.9)	176(50.1)	1		
	Unplanned	21(65.6)	11(34.4)	1.92(.899,4.10)	7.36(1.98, 27.37)	.003
Received ANC	No	45(61.6)	28(38.4)	1.69(1.04,2.85)	.756(.330,1.731)	.508
	Yes	151(48.7)	159(51.3)	1		
Birth place	Home	43(58.9)	30(41.1)	1.47 (0.87, 2.46)	1.99(0.902,4.424)	.088
	Health institution	153(49.4)	157(50.6)	1		
Birth outcome	Dead	26(42.6)	35(57.4)	1.51 (0.86, 2.62)	3.15(1.54, 6.42)	.002
	Alive	170(52.8)	152(47.2)	1		
Hospital admission during pregnancy	No	2(25)	6(75)	3.21 (0.64, 16.14)	5.50(3.863,26.3)	.002
	Yes	194(51.7)	181(48.3)	1		
Postpartum Depression	Depressed	87(54.7)	72(45.3)	1.27 (0.85, 1.92)	1.22(.762,1.95	.408
	Not depressed	109(48.7)	115(51.3)	1		

CHAPTER SIX

6. DISCUSSION

This study examined the magnitude of maternal health related quality of life and associated factors among post-partum women in Jimma town. The descriptive analysis shows that about 51.2% of the study participants had lower level health-related quality of life with the confidence interval of 47.32 to 56.81. In this study the overall HRQoL mean score was recorded as 50.58. This score is higher than a study conducted in Arba Minch, Ethiopia (56) showed as the overall HRQoL mean score was 45.15. The overall quality of HRQoL mean score of a study conducted in Spain (77) showed that 71.74 and a study reported in Iran (39) revealed that 66.32 which are higher than the overall quality of HRQoL mean score of the current finding. The difference may be due to the socio-economic variations of the study participants. A higher socio-economic status supports a higher quality of life.

The finding showed that lower health related quality of life (HRQoL) had significantly associated with age of women. The odds of women aged between 16-25 years had 10.09 times more likely to have lower health related quality of life compared to women with whose age group ≥ 36 years. This finding is supported by a study conducted in Ethiopia (56) revealed that being younger in age increased the odds of having lower level HRQoL. This finding is contrary to a study done in Iran revealed that women aged being younger had better quality of life (12). The inverse relationship may be due to the majority of younger age women were primparous who were less experienced with pregnancy, birth, and are more likely to develop postpartum depression.

The postpartum women partners' who did attend elementary education had more likely to have lower health related quality of life compared with women's partners who attended higher education. This finding is supported to a study worked in Iran (12) showed that no education had more likely to have lower health related quality of life. The finding is also consistent with another study done in Ethiopia (56) revealed that no formal education had more likely to have lower HRQoL. Such finding is consistent with another study done in china reported that a postpartum mother whose husbands were not educated had more likely to poor HRQoL (32). The possible reason might be educated partners are more likely to decide on their family's healthcare

compared to uneducated ones. Because, women's with no formal educated partner are less likely to participate ANC, more likely to give birth at home, and less likely to seek immediate health care until a complication occurs.

The finding showed that the odds of a multiparous woman had 2.21 times less likely to have lower health related quality of life compared to women's with primparous parity. This result is consistent with a study conducted in North Jordan revealed that high-parity women had lower QOL scores than low-parity women (78).

The finding also revealed that birth outcome had significantly associated with HRQoL. Women's gave dead birth were more likely to have lower health related quality of life than women who gave live birth. This is due to maternal health and newborn health are closely linked. It is particularly important that all births are attended by skilled health professionals, as timely management and treatment can make the difference between life and death for the mother as well as for the baby.

This study showed that state of last pregnancy had significantly associated with lower HRQoL. Unplanned pregnant women had 7.36 times more likely to have lower health related quality of life. This finding is similar with a study done by Ali revealed that unwanted and un-planned pregnancies can reduce the quality of life in women (79). Similar findings were reported by a study done in Northeastern Brazil reported that non-acceptance of pregnancy was associated with lower HRQOL scores (40). Similarly, the finding is also consistent with a study done by Woolhouse revealed that women who planned pregnancy had better HRQOL scores among postpartum women (55). This is due to planned pregnancy help to give a healthy baby. Planned pregnancy had more likely to give health to both the babies and the mother.

Moreover, the odds of women who didn't have a hospital admission during pregnancy were more likely to have lower health related quality of life than women who had hospital admission after pregnancy holding the other factors constant in the model. This finding supported by a study done by Guannan showed that the hospital admission of the infant were significantly associated with worse physical HRQoL (61). The possible reason might be postpartum women who are admitted to a hospital history obtain a variety of significance, including scheduled tests,

procedures, and emergency medical treatment. So, it is likely to have more health-related quality of life.

Measuring quality in general is one of the first steps towards improvement, but measurement can be challenging given the complex and interconnected features of women's experiences with the maternal health care system. The availability of infrastructure and supplies, the health care workers' level of training, provider-patient relationships, and many other factors affect the quality of care a woman receives, and some of these factors are easier to measure than others.

CHAPTER SEVEN

7. CONCLUSIONS AND RECOMMENDATIONS

7.1 Conclusions

The findings of this study demonstrated almost half (51.2%) of postpartum women had a lower level of health-related quality of life. The overall HRQoL mean score for this study was 50.58. The lowest mean score was recorded in body pain with Mean±SD of 24.58±30.97, while the highest score was recorded in physical functioning with Mean±SD of 65.75±26.56.

This study also concludes that younger in age, non-formal education of partner, multiparous women, unplanned pregnancy, gave dead birth, and women didn't have a hospital admission after pregnancy were found to be more likely to have lower health related quality of life at 0.05 levels of significance.

7.2 Recommendations

Based on the findings, the following recommendations can be made:

- ✓ Health extension workers in jimma town need a great attention for significant factors to set up measures in order to prevent and improve women's postpartum health related quality of life.
- ✓ Jimma town health officers should consider measures to be taken to improve the quality of life of postpartum women focusing on maternal services like enforcing them to deliver births at the health institutions, and improving the educational status of partners
- ✓ Health extension workers should aware the women on the risk of unwanted pregnancies in order to decrease low health-related quality of life.
- ✓ There might be another factor that determines maternal health related quality of life beyond what we examined; this study recommend for futer researcher to explore other factors.

7.3 Strengths of the study

This study had different strengths. The first strength is using primary source of data. It provides raw information and first-hand evidence. Secondly, it is a new study, most of the findings of the postpartum health quality of life are conducted in the developed countries and few in developing

countries. Still there is only one research done in Ethiopia. To this end this study will provide a rich picture of the factors influencing maternal heath quality of life.

7.4 Limitations of the study

Since the study was community-based we could not ascertain and measure variables like chronic disease and pregnancy and birth-related problems that could affect the quality-of-lif. Additionally, as literature pointed out, some factors which had significant influences on the maternal HRQoL such as marital status, mother's educational level, income level, having other children, ANC visit, birthplace, and postpartum depression were not significant in this study. This may be due to applying the small sample size; this is why the primary source of data collection takes money, time, and human efforts.

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APPENDIX

JIMMA UNIVERSITY

INSTITUTE OF HEALTH, DEPARTMENT OF POPULATION AND FAMILY HEALTH

Annex I: **Information Sheet**

Hello! I am _____, I am a postgraduate student in the department of population and family health. I am here to interview maternal health related quality of life among post-partum women in Jimma Town.

The study title: Maginitude of Maternal Health Related Quality of Life and associated factors among Post-Partum Women in Jimma Town: A Community-Based Cross Sectional Study

Objective- To investigate the influencing factors for maternal health related quality of life among post-partum women in Jimma Town

Risks and benefits there is no possible risk associated with participating in this study except the time spent for completing the questionnaire. But the findings from this study may reveal important information to nurse professionals, hospitals administrators and health policy makers concerning the level and associated factors of occupational stress. The information generated could be useful in designing appropriate interventions to develop stress reduction strategies.

Confidentiality: The information you will provide us will be confidential. There will be no information that will identify participant in particular. The findings of this study will be general for the study community and will not reflect anything particular of individual person or hospital. The questionnaires will be coded to exclude showing names. No reference will be made in oral or written reports that could link participants to the research.

Consent Form

I am informed all about the purpose and benefit of the study and I have understood that no information about me will be exposed to other party. After taking all the above into consideration, I the undersigned have:

1. Agreed to participate in the study. If so, continue

2. Disagreed to participate in the study. ☐ If so, say "Thank you" and discontinue.

Signature: _____ Date: _____

Data collector's: Signature _____date_____

Annex II questionnaire.

Questionnaires form to study the influencing factors maternal health related quality of life among post-partum women in Jimma Town.

Day / Month / Year of interview (EC):----------

Annex I: English version questionnaires

The following questions will be filled by data collectors Date of the interview(dd/mm/yy)---------- Serial number----------		
Part I Socio demographic characteristics		
101	What is your age?	----------
102	Marital status of the mother	Single ----------1 Married ----------2 Divorced ----------3 Separated----------4 Widowed----------5 Other (specify)---------- 77
103	Your educational status	Illiterate----------1 Read & write----------2 Elementary(1-8)----------3 Secondary(9-12)----------4

		Higher education(>12)---5 Other(specify)----------77
104	Partners educational status	Illiterate----------1 Read & write----------2 Elementary(1-8)----------3 Secondary(9-12)----------4 Higher education(>12)----5 Other(specify)----------77
105	What is your occupation?	Government-employee--.--1 NGO Employee----------2 Self-employee----------3 Daily laborer----------4 House wife----------5 Other(specify)----------77
106	Monthly income of mothers	_____ Don't know----------88
107	Mother, what is your religion?	Orthodox----------1 Muslim----------2 Protestant ----------3 Other (specify)---------- 77
108	Do you have other children?	Yes----------1 No----------2

109	If yes how many children do you have?	----------
Part II: Obstetrics related factors		
201	Parity	Prim para ---------1 Multiparous ---------2
202	State of last pregnancy	Planned---------1 Unplanned ---------2
203	Received ANC	Yes ---------1 No---------2
204	Place of birth	Home---------1 Health institution ---------2
205	Mode of delivery	Vaginal ---------1 Cesarean---------2
206	Birth outcome	Alive---------1 Dead ---------2
207	History of hospital admission during pregnancy	Yes ---------1 No ---------2
208	History of hospital admission after birth	Yes---------1 No ---------2

Part III: Psychological and social related factors

A. Edinburgh Postnatal Depression Scale (EPDS) to measure postpartum depression

Please place a CHECK MARK (_) on the blank by the answer that comes closest to how you have felt during in the postpartum period.

1. I was able to laugh and see the funny side of things:
   - ○ As much as I always could
   - ○ Not quite so much now
   - ○ Definitely not so much now
   - ○ Not at all
2. I was looked forward with enjoyment to things:
   - ○

As much as I ever did

- ○ Rather less than I used to
- ○ Definitely less than I used to
- ○ Hardly at all

3. I blamed myself unnecessarily when things went wrong:
   - ○ Yes, most of the time
   - ○ Yes, some of the time
   - ○ Not very often
   - ○ No, never
4. I had been anxious or worried for no good reason:
   - ○ No, not at all
   - ○ Hardly ever
   - ○ Yes, sometimes
   - ○ Yes, very often
5. I have felt scared or panicky for no good reason:
   - ○ Yes, quite a lot
   - ○ Yes, sometimes
   - ○ No, not much
   - ○ No, not at all
6. Things have been getting to me:
   - ○ Yes, most of the time I haven't been able to cope at all
   - ○ Yes, sometimes I haven't been coping as well as usual
   - ○ No, most of the time I have coped quite well
   - ○ No, I have been coping as well as ever
7. I have been so unhappy that I have had difficulty sleeping:
   - ○ Yes, most of the time
   - ○ Yes, sometimes
   - ○ No, not very often
   - ○ No, not at all
8. I felt sad or miserable:
   - ○ Yes, most of the time

- ○ Yes, quite often
- ○ Not very often
- ○ No, not at all

9. I have been so unhappy that I have been crying:
   - ○ Yes, most of the time
   - ○ Yes, quite often
   - ○ Only occasionally
10. The thought of harming myself has occurred to me
   - ○ Yes, quite often
   - ○ Sometimes
   - ○ Hardly ever
   - ○ Never

B. Social Support Questionnaire - Short Form (SSQ6)

Please place a (✓) on the table below by answer that comes closest to how you have felt on social support during in the postpartum period

Instructions: This scale is made up of a list of statements each of which may or may not be true about you. For each statement circle "definitely true" if you are sure it is true about you and "probably true" if you think it is true but is not absolutely certain. Similarly, you should circle "definitely false" if you are sure the statement is false and "probably false" if you think it is false but are not absolutely certain.

No.	Items	**Definitely false**	**Probably false**	**Probably true**	**Definitely true**
1	When I was postpartum period I feel that there were no one I can share my most private worries and fears with.				
2	If I were sick, I could easily find someone to help me with my daily chores.				
3	There was someone I can turn to for advice about handling problems with my family.				
4	When I need suggestions on how to deal				

	with a personal health problem, I know someone that help me				
5	If I was stranded 10 miles from home, there was someone I could call who could come and get me.				
6	If a family crisis arose, it would be difficult to find someone who could give me good advice about how to handle it.				

Part IV: SF-36: QUESTIONNAIRE to measure maternal health quality of life

Please answer the 36 questions of the Health Survey completely, honestly, and without interruptions.

GENERAL HEALTH:

1. In general, would you say your health is:

   ○ Excellent ○ Very Good ○ Good ○ Fair ○ Poor

2. Compared to one year ago, how would you rate your health in general now?

   ○ Much better now than one year ago

   ○ Somewhat better now than one year ago

   ○ About the same

   ○ Somewhat worse now than one year ago

   ○ Much worse than one year ago

LIMITATIONS OF ACTIVITIES:

The following items are about activities you might do during a typical day. Does your health now limit you in these activities? If so, how much?

	Yes, Limited a lot	Yes, Limited a Little	No, Not Limited at all
3. Vigorous activities, such as running, lifting heavy objects, participating in strenuous sports.			
4. Moderate activities, such as moving a table, pushing a vacuum cleaner, bowling, or playing golf			
5. Lifting or carrying groceries			
6. Climbing several flights of stairs			
7. Climbing one flight of stairs			
8. Bending, kneeling, or stooping			
9. Walking more than a mile			
10. Walking several blocks			
11. Walking one block			
12. Bathing or dressing yourself			

PHYSICAL HEALTH PROBLEMS:

During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of your physical health?

	Yes	No
13. Cut down the amount of time you spent on work or other activity		
14. Accomplished less than you would like		
15. Were limited in the kind of work or other activities		
16. Had difficulty performing the work or other activities (for example, it took extra effort)		

EMOTIONAL HEALTH PROBLEMS:

During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of any emotional problems (such as feeling depressed or anxious)?

	Yes	**No**
17. Cut down the amount of time you spent on work or other activities		
18. Accomplished less than you would like		
19. Didn't do work or other activities as carefully as usual		

SOCIAL ACTIVITIES:

20. Emotional problems interfered with your normal social activities with family, friends, neighbors, or groups?

Not at all Slightly Moderately Severe Very Severe

PAIN:

21. How much bodily pain have you had during the past 4 weeks?

None Very Mild Mild Moderate Severe Very Severe

22. During the past 4 weeks, how much did pain interfere with your normal work (including both work outside the home and housework)?

Not at all A little bit Moderately Quite a bit Extremely

ENERGY AND EMOTIONS:

These questions are about how you feel and how things have been with you during the last 4 weeks. For each question, please give the answer that comes closest to the way you have been feeling.

	All of the time	Most of the time	A good Bit of the Time	Some of the time	A little bit of the time	None of the Time
23. Did you feel full of pep?						

24. Have you been a very nervous person?						
25. Have you felt so down in the dumps that nothing could cheer you up?						
26. Have you felt calm and peaceful?						
27. Did you have a lot of energy?						
28. Have you felt downhearted and blue?						
29. Did you feel worn out?						
30. Have you been a happy person?						
31. Did you feel tired?						

SOCIAL ACTIVITIES:

32. During the past 4 weeks, how much of the time has your physical health or emotional problems interfered with your social activities (like visiting with friends, relatives, etc.)?

- ○ All of the time
- ○ Most of the time
- ○ Some of the time
- ○ A little bit of the time
- ○ None of the Time

GENERAL HEALTH:

How true or false is each of the following statements for you?

	Definitely true	Mostly true	Don't know	Mostly false	Definitely false
33. I seem to get sick a little easier than other people					
34. I am as healthy as anybody I know					
35. I expect my health to get worse					
36. My health is excellent					

APPENDIX

JIMMA UNIVERSITY

INSTITUTE OF HEALTH, DEPARTMENT OF POPULATION AND FAMILY HEALTH

Dabalee I: Waraqaa odeeffannoo itti kennamu

Akkam: Ani _____ _____, barataa muummee Fayyaa Maatii fi Hawaasaati. Ani dhimma fayyaa haadholii walqabatee haala qulqullina jireenyaa dahumsa boodaa dubartootaa Magaalaa Jimmaa afgaaffii raawwachuufi.

Fayyaa haadholii walqabatee haala qulqullina jireenyaa dahumsa boodaa dubartootaa Magaalaa Jimmaa yaada keessan gaafachuun fedha. Yaadni keessan sirrii yoo ta'es ta'uu baates nan simadha. Kanaafuu, hirmaannaa isin gaaffiiwwan koo deebisuuf taasiftan kaayyoo qorannoo koof gahee olaanaa qaba. Qorannoo kun kun rakkoowwan gama fayyaa haadholii walqabatee haala qulqullina jireenyaa dahumsa boodaa dubartootaa ibsuuf faayidaa olaanaa qaba. Qorannoo kana irratti hirmaachuu keessaniin dhiibbaan isin irra gahu tokkollee hin jiru. Hirmaannaan keessan hooggantoonni fayyaa hawaasaa sagantaa dhimma jireenya fayyaa qulqullaa'aa akka qindeessaniif fayyada. Kanaaf yaadni keessan rakkina qulqullina fayyaa walqabatan akka hubataniif baay'ee nu barbaachisa. Akkasumas, fedhii keessan irratti waan hundaa'uuf gaaffii barbaaddan deebisuu dhiisuu dandeessu. Qorannoo kana keessatti maqaa keessan barreessuun waan hin barbaachisneef namni deebii keessan beeku hin jiru. Yaada isin kennitan guutummaan icciitiidhaan qabama. Gaaffilee dhihaatan deebisuun yoo isinitti hin yeroo biraa guutuu ni dandeessu. Gaaffiiwwan qorannoo kanaa daqiiqaa 30 fudhachuu danda'a.

Afgaaffii kana hirmaachuuf fedha qabdaa? Yoo "Eeyyee" jette itti fufi. Yoo "Lakkii" jette galatoomi asumatti Dhaabi.

1. Eeyyee 2. Lakki

Guca Eeyyamamu

Ani kaayyoofi bu'aa qorannichaa hubadheera. Akkasumas, yaadni ani kennu nama sadaffaatti akka hin dabarfamne hubadheera. Waantota olitti kaafaman hundumaa hubannoo keessa galchuun waraqaa kana guutuuf,

1. Qorannicha ieessatti hirmaachuun fedha kooti ☐ Yoo akkas ta'e itti fufi

2. Qorannicha irratti hirmaachuuf fedha hin qabu. ☐ Yoo akkas ta'e galatoomi . Asumatti dhaabi.

Mallattoo : _____ Guyyaa: _____

Mallattoo odeeffannoo walitti qabaa: _____Guyyaa _____

Dabalee II Bargaaffii

Guca bargaaffii wa'ee dhiibbaa rakkoowwan gama fayyaa haadholii walqabatee haala qulqullina jireenyaa dahumsa boodaa dubartootaa Magaalaa Jimmaa qorachuuf qophaa'e.

Guyyaa / Ji'a / bara afgaaffii (A.L.I):----------

Dabalee I: Afaan Oromoodhaan barbaadduu qophaa'e

Gaaffileen armaan gadii odeeffannoo sassaabdootaan guutama Guyyaa argaachuu (Guyyaa/ji'a/ Waggaa)---------- Lakkoofsa koodii ----------		
Kutaa I Seenduubee odeeffannoo kennitootaa		
101	Umuriin kee meeqa?	----------
102	Sirna gaa'elaa haadhaa	Hin heerumne ----------1 Heerumte ----------2 Hiikteetti ----------3 Irraa du'e ----------4 Kan biraa (ibsi)---------- 77

103	Sadarkaa barnootaa	Hin baranne ----------1 Barreessuufi dubbisuu ----------2 Sadarkaa tokkoffaa(1-8)----------3 Sadarkaa lammaffaa (9-12)-----4 barnoota olaanoo (>12)---5 Kan biraa (ibsi)----------77
104	Sadarkaa barnootaa hiriyaa ishee	Hin baranne ----------1 Barreessuu fi dubbisuu ----------2 Sadarkaa tokkoffaa (1-8)----------3 Sadarkaa lammaffaa (9-12)----------4 Barnoota olaanoo (>12)----5 Kan biraa (ibsi)----------77
105	Gaheen hojii kee maali?	Hojjetaa Mootummaa --.--1 Hojjetaa mitimootummaa----------2 Hojii dhuunfaa ----------3 Dafqaan bulaa----------4 Haadha manaa----------5 Kan biraa(ibsi)----------77
106	Galii ji'aa haadhotii	_____ Hin beeku----------88
107	Harme, amantiin kee maali?	Ortodooksii ----------1 Islaamaa ----------2 Piroteestaantii ----------3 Kan biraa (ibsi)---------- 77
108	Daa'imman biroo qabdaa?	Eeyyee ----------1

		Lakki----------2
109	**Yoo Eeyyee jette meeqa qabda?**	----------

Kutaa II: rakkoolee da'umsaan walqabatan

201	Hiriyummaa	Prim parous ---------1 Multiparous ---------2
202	Haala ulfa isa dhumaa	Karooraan ---------1 Karooraan ala---------2
203	Talaallii fudhachuu	Eeyyee ---------1 Lakki---------2
204	Iddoo da'umsaa	Mana---------1 Buufata fayyaa ---------2
205	Akkaataa da'umsaa	Karaa qaama saalaa ---------1 Gama baqaqsuun---------2
206	Bu'aa da'umsaa	Jira---------1 Du'eera ---------2
207	Kaardii hospitaalaa wayita ulfaa qabdaa	Eeyyee ---------1 Lakki ---------2
208	Kaardii hospitaalaa da'umsaa boodaa qabdaa	Yes---------1 No ---------2

Kutaa III: Rakkoowwan gama hawaasummaa fi xiinsammuu

A. Edinburgh hamma cinqii da'umsa boodaa dhiibbaa da'umsa boodaa madaalu

Bakka siif kenname irratti deebii kee dhimma da'umsaa boodaa sitti dhaga'amu guuti.

1. Waantota nama dinaan arguu danda'eera.

- Hanga danda'ame yeroo hundaan godha
- Hanga kana miti amma
- Sirrumatti hin godhu amma
- Guutummaatti hin godhu

2. Waantota haala miidhagaadhaan ilaalleera

- Hanga danda'ame hundumaa godheera
- Hanga jedhamu gad godheera
- Sirrumatti Hanga jedhamu gad godheera
- Hardly at all Walumaa galatti ni ulfaata

3. Waantonni yemmuu sirrii ta'uu haala hin taaneen ofiin ceepha'a

- Eeyyee, yeroo baay'ee
- Eeyyee yeroo tokko tokko
- Yeroo danuu miti
- Lakki, tasumaa

4. Sababa quubsaa hin taaneen yaadda'aa yookaan cinqamaan ture

- Guutummaatti lakki
- Tasumaa hin goone
- Eeyyee yeroo tokko tokko
- Eeyyee, yeroo hundaa

5. Sababa quubsaa hin taaneef ofiin dhoksuun yaala

- Eeyyee yeroo mara
- Eeyyee yeroo tokko tokko
- Lakki hangana miti
- Guutummaatti lakki

6. Waantonni rakkoo yemmuu uuman furmaata hin kennine

- Eeyyee Walumaa galatti furmaata kennuu hin dandeenye
- Eeyyee hanga tokko furmaata kennuu hin dandeenye
- Lakki hanga tokko furmaata kennuu yaaleera
- Lakki, Walumaa galatti furmaata kennuu danda'eera

7. Yemmuu hirriba cimaan na mudatu itti hin gammanne.

- Eeyyee yeroo baay'ee
- Eeyyee, yeroo tokko tokko
- Lakki, yeroo danuu miti
- Guutummaatti lakki

8. Gaddatu natti dhaga'ame

- Eeyyee yeroo baay'ee
- Eeyyee, yeroo tokko tokko
- Lakki, yeroo danuu miti
- Guutummaatti lakki

9. Yemmuu gammachuun natti dhaga'amuu baate nan boo'a

- Eeyyee , yeroo tokko tokko
- Eeyyee irra caalaa
- Akka tasaa

10. Yaaddoon of miidhu na mudata.

- Eeyyee irra caalaa
- Yeroo tokko tokko
- Baay'ee miti
- Tasumaa

B. Gaaffee deeggarsa Hawaasummaa - unka gabaabaa

Mallattoo kana gabatee gadii keessatti dhimma deeggarsa hawaasaa waa'ee wayita da'umsaa boodaa siif kenname keessatti guuti.

Ajaja: Gaaffileen kunneen himoota ijaaraman dhugaa yookaan dhugaa hin taane waa'ee kee akka ibsitutti. Gaaffiiwwan kennaman yoo sirritti itti amante 'Sirrumatti Dhugaa' yoo shakkisiisaa ta'e immoo 'hanga ta'e dhugaa' jedhi. Akkasuma immoo soba ta'uu isaa amante 'sirrumatti Soba', yoo shakkisiisaa ta'e immoo 'hanga ta'e soba' jedhi.

No.	Gaaffiiwwan	**Sirrumatti soba**	**Hanga ta'e sova**	**Hanga ta'e dhugaa**	**Sirrumatti dhugaa**
1	Yemmuun da'umsaa boodaa irra jiru, waan natti dhaga'amu gaddaafi sodaa koo kanan itti qooddachuuf hin qabu.				
2	Yoo na dhukkube, na jiruu koo irratti na deeggaruu danda'uun barbaaddadha.				
3	Namni ani rakkoo koo to'achuuf kan waliin				

	mari'adhu ni jira maatii koo keessa				
4	Yemmuun rakkoo dhuunfaa koof yaada fedhu, nama na deeggaru nan qaba				
5	Yoo mana irraa km 10 ol fagaadhe, nama waammadhee naaf dhufee na deeggaruu nan qaba.				
6	Yoo rakkoon maatii keessatti mudate, nama rakkoo sana furu argachuuf baay'ee natti cimata.				

Kutaa IV: SF-36: Bargaaffii haala qulqullina jireenyaa fayyaa haadholiif qophaa'e

Gaaffilee 36 waa'ee fayyaa qophaa'an armaan gadii amanamuummaadhaafi rakkoo tokko malee akka deebistan kabajaan nan gaafadha.

Haala Waliigala Fayyaa:

1. Akka walii galaattii, fayyaan kee maal fakkaata?

   A. Baay'ee baay'ee gaarii
   B. Baay'ee gaarii
   C. Gaarii
   D. Hangana miti
   E. Gad bu'aadha

2. waggaa tokkoon duraan yemmuu madaalamu, fayyaa kee akkamitti ibsita?

   A. Isa waggaa tokko duraa sirriitti caala
   B. Hanga tokko isa waggaa tokko duraa ni caala
   C. Walfakkaataadha
   D. Inni kun kan waggaa tokko duraarraa hanga tokko jibbisiisaadha
   E. Isa waggaa tokko duraarraa baay'ee jibbisiisaadha

Hanqina gochaalee

Gaaffiiwwan gadii kunneen yeroo sanatti gochaalee raawwattu maal akka fakkaatudha. Haalli fayyaa kee yeroo ammaa gochaalee kanaan madaalamaa? Yoo akkas ta'e hangama?

	Eeyyee, baay'ina an	Eeyyee, hanga tokko	Lakki, tasumaa
3. Gochaalee ulfaatoon kan akka fiigichaa, meeshaalee ulfaatoo kaasuu, ispoortii ulfaata keessatti hirmaachuu fa'aa			
4. Gochaalee giddu-galeessa kan akka minjaala sochoosuu, qulqulleessitu baaxii dhiibuu, golfii taphachuu			
5. Meeshaalee nyaataa baachuufi sochoosuu			
6. Waantota balali'an danuu yaabbachuu			
7. Waantota balali'u tokko yaabbachuu			
8. Gad jechuu, jilbeeffachuu, goobachuu			
9. Fagaatanii adeemuu			
10. bilookii danuu irra adeemuu			
11. Bilookii tokko irra deemuu			
12. Mana dhiqannaa galuu yookaan uffachuu			

Rakkoolee fayyaa qaamaa:

Torbeewwan arfan darban, yemmuu hojii hojjettus ta'ee haala jiruuf jireenya kan biroo keessatti rakkoolee fayyaa qaamaa armaan gadii si mudataniiru?

	Eeyyee	Lakki
13. Baay'ina yeroo hojii adda addaa irrattiu dabarsituu hir'isuu		
14. Hanga barbaadamuu gad milkeessuu		
15. Haala hojiilee irratti hundaa'ee madaalama		
16. Hojiilee keessatti waan ulfaataa raawwachuu		

Rakkoolee Fayyaa Sammuu

Torbeewwan arfan darban, yemmuu hojii hojjettus ta'ee haala jiruuf jireenya kan biroo keessatti rakkoolee fayyaa sammuu (of jibbuun fa'aa) armaan gadii si mudataniiru?

	Eeyyee	Lakki
17. Baay'ina yeroo hojii adda addaa irrattiu dabarsituu hir'isuu		
18. Hanga barbaadamuu gad milkeessuu		
19. Hojii kamiyyuu of eeggannoof jecha hin hojjedhu		

Sochii Hawaasummaa:

20. Rakkoon xiinsammuu sochii hawaasummaa sirrii kan akka maatii, hiriyaa, ollaafi garee keessa ni jeeqa?

    A. Tasumaa
    B. Salphaadha
    C. Giddugaleessa
    D. Ulfaataadha
    E. Baay'ee ulfaataadha

Dhukkubbii:

21. Torbeewwan arfan darban keessatti, dhukkubbii qaamaa hammam si mudate?

    A. Tasumaa
    B. Salphaadha
    C. Giddu-galeessa
    D. Ulfaataadha
    E. Baay'ee ulfaataadha

22. Torbeewwan arfan darban keessatti, dhukkubbiin si mudate hammam hojii kee irratti dhiibbaa uume?

    A. Tasumaa
    B. Salphaadha
    C. Giddugaleessa

D. Ulfaataadha

E. Baay'ee ulfaataadha

Humnaafi Fedhii Keessoo:

Gaaffileen kunneen torbeewwan darban keessa maaltu akka sitti dhaga'amuufi waantonni akkamii akka si mudatan kan xiyyeeffatudha. Tokkoon tokkoo gaaffilee kanneeniif haala fedhii keessoo kee waliin walitti dhiyaatuun deebii sirrii ta'e kenni.

	Yeroo hundaa	Yeroo danuu	Yeroo gaarii ta'e tokko tokko	Yeroo tokko tokko	Yeroo muraasa	Yeroo kamuu hin mudanne
23. Gammachuudhaan du'uun sitti dhaga'amee beekaa?						
24. Ati nama baay'ee aarudhaa?						
25. Yemmuu haalonni siif milkaa'uu dhaban yaadaan cabdee beektaa?						
26. Nageenyiifi gammachuun sitti dhagahamee beekaa?						
27. Humna danuu qabdaa?						
28. Onneedhaa cabdee yaaddee beektaa?						
29. Ani kana booda hin fayyadu jettee beektaa?						
30. Ati yeroo hundumaa gammadaadhaa?						
31. Dadhabbiin sitti dhaga'amaa?						

Gochaalee Hawaasummaa :

32. Torbeewwan arfan darban keessa rakkoon xiinsammuufi fayyaa qaamaa haala sochii hawaasummaa sirrii kan akka maatii, hiriyaa, ollaafi garee keessa jeeqee beekaa?

F. Tasumaa

G. Salphaadha
H. Giddugaleessa
I. Ulfaataadha
J. Baay'ee ulfaataadha

Haala Fayyaa waliigalaa:

How true or false is each of the following statements for you?

Himoonni armaan gadii siif hammam dhugaa yookaan sobadha?

	Sirriitti dhugaadha	Irraa caalaa dhugaadha	Hin beeku	Irra caalaa soba	Sirriitti soba
33. Nama biroo irra salphaatti dhukkubni na qaba.					
34. Akkuma namoota biroo fayyummaan natti dhaga'ama					
35. Akka yaada kootti fayyummaa koo rakkoo keessa jira					
36. Fayyummaan koo baay'ee baay'ee gaarii					

APPENDIX

JIMMA UNIVERSITY

INSTITUTE OF HEALTH, DEPARTMENT OF POPULATION AND FAMILY HEALTH

የአማርኛትርጉምጥያቀዎች

ክፍል አንድ ማህበራዊና የኋላ ታሪክ ባህሪ ላይ የሚያጠነጥኑ ጥያቄዎች			
ተ.ቁ	ጥያቄ	መለያቁጥር	እለፍ
101	እድሜ	----------	
102	የጋብቻ ሁኔታ?	ሀ. ያላገባ ለ. ያገባ ሐ. በጋራ እየኖሩ መ. የፈታ/ የተለያየ ሠ.ባለቤት የሞተበት	
103	የትምህርት ደረጃ	ሀ. ያልተማረ ለ..የመጀመሪያ ደረጃ ትምህርት ሐ. ሁለተኛደረጃ ትምህርት መ. ሁለተኛ ና ከዚያ በላይ	
104	የባለቤትዎ የትምህርት ደረጃ	ሀ. አንደኛ ደረጃ ለ. ሁለተኛ ደረጃ ሐ. ከሁለተኛ ደረጃ በላይ	
105	የስራ ሁኔታ?	ሀ ተማሪ ለ. የቤት እመቤት ሐ. የመንግስት ሰራተኛ ሐ.የግል ሰራተኛ ረ. ሌላ ይግለፁ----------	
106	የወር ገቢዎ	----------ብር	
107	የምትከተዪው እምነት	ሀ ኦርቶዶክስ ለ ሙስሊም ሐ ፕሮቴስታንት መ ሌላ ----------	
108	ልጆች አላችሁ	ሀ አዎ ለ የለንም	
109	አዎ ከሆ፣ ስንት ልጅ አላችሁ		
ክፍል ሁለት የወለድ ሁኔታ ላይ የሚያጠነጥን መጠይቆች			
201	ስንት ጊዜ ወልደዋል		
202	የመጨረሻው እርግዝና ሁኔታ	ሀ የታቀደ ለ ሳይታቀድ	
203	የእርግዚና ክትትል አድርገዋል	ሀ. አዎ	

		ለ. የለም	
204	የት ነው የወለዱት	ሀ ቤት ለ ጤና ተቃም	
205	የወሊድ ሁኔታ	ሀ ብልት ለ ቀዶ ጥገና	
206	የውልደት ውጤት	በህይወት ያለ የሞተ	
207	በእርግዝና ወቅት ሆስፒታል የመግባት ታሪክ	ሀ. አዎ ለ. አልነበረም	
208	ከተወለደ በኋላ ሆስፒታል የመግባት ታሪክ	ሀ. አዎ ለ. አልነበረም	
ክፍል ሶስትየአማርኛትርጉም EPDS በለፉት 7 ቀናት ውስጥ			
1	ባለፉት ሰባት ቀናቶች ውስጥ መሳቅና የነገሮችን አስደሳች ጎን ማይት ችለዋል?	ሀ. ሁሌ የምችለውን ያህል ለ. አሁን በጣም ብዙም አይደለም ሐ. በእርግጥ አሁን ብዙም አይደለም መ. በጭራሽ አይደለም	
2	ባለፉት ሰባት ቀናቶች ውስጥ ነገሮችን ወደ ፊት በደስታ ያዩ ነበር?	ሀ. አዎ ሁሌም እንደማደርገው ለ. በፊት ከማደርገው ያነሰ ሐ. በእርግጥ በፊት ከማደርገው ያነሰ መ. በአጠቃላይ ከባድ ነው	
3	ባለፉት ሰባት ቀናቶች ውስጥ ነገሮች ወደ አላስፈላጊ ሁኔታ ሲያመሩ ያለምክንያት እራስዎን ወቅሰዋል ?	ሀ. አዎ ብዙውን ጊዜ ለ. አዎ አንዳንዴ ሐ. ብዙ ጊዜ አይደለም መ. አይደለም መቼም ሆኖ አያውቅም	
4	ባለፉት ሰባት ቀናቶች ውስጥ ያለምንም በቂ ምክንያት ተሸብረው ወይም ተጨንቀው ያውቃለ?	ሀ. አይደለም መቼም ሆኖ አያውቅም ለ. እምብዛም ሐ. አዎ አንዳንዴ መ. አዎ በጣም ብዙ ጊዜ	
5	ባለፉት ሰባት ቀናቶች ውስጥ ያለምንም በቂ ምክንያት የፍርሀትና የድንጋጤ ስሜት ተሰምቶት ያውቃል?	ሀ. አዎ በጣም ብዙ ጊዜ ለ. አዎ አንዳንዴ ሐ. አይደለም ብዙ ጊዜ አይሰማኝም መ. አይደለም በጭራሽ አይሰማኝም	
6	ባለፉት ሰባት ቀናቶች ውስጥ ነገሮች ከቁጥጥርዎ ውጭ ሆነው	ሀ. አዎ ብዙ ጊዜ ነገሮችን በአጠቃላይ መቋቋም አልችልም	

	ቦት ያውቃል?	ለ. አዎ ልክ እንደ ብዙ ጊዜ አንዳንዴ ነገሮችን መቋቋም አልችልም ሐ. አይደለም ብዙ ጊዜ በጥሩ ሆኔታ ነገሮችን እቋቋማለሁ መ. አይደለም ልክ እንደ በፊቱ በጥሩ ሁኔታ ነገሮችን እቋቋማለሁ				
7	ባለፉት ሰባት ቀናቶች ውስጥ በጣም ደስተኛ ባልመሆንዎ እንቅልፍ እምቢ ብልዎት ያውቃል ?	ሀ. አዎ በጣም ብዙውን ጊዜ ለ. አዎ ብዙውን ጊዜ ሐ. በጣም ብዙ ጊዜ አይደለም መ. በፍጹራሽ አይደለም				
8	ባለፉት ሰባት ቀናቶች ውስጥ የሀዘንና የብስጭት ስሜት ተሰምቶት ያውቃሌ?	ሀ. አዎ በጣም ብዙውን ጊዜ ለ. አዎ ብዙውን ጊዜ ሐ. በጣም ብዙ ጊዜ አይደለም መ. በፍጹራሽ አይደለም				
9	ባለፉት ሰባት ቀናቶች ውስጥ በጣም ከማዘንዎት የተነሳ አልቅሰው ያውቃለ?	ሀ. አዎ አብዛኛውን ጊዜ ለ. አዎ ብዙ ጊዜ ሐ. አልፎ አልፎ ብቻ መ. መቼም አይደለም				
10	ባለፉት ሰባት ቀናቶች ውስጥ እራስዎን ለመጉዳት አስበው ያውቃለ?	ሀ. በጣም ብዙ ጊዜ ለ. አንዳንድ ጊዜ ሐ. እምብዛም መ. በፍጹራሽ				
11		በእርግጠኝነት ሐሰት	ምናልባት ውሸት ሊሆን ይችላል	እውነት ሊሆን ይችላ	በእርግጠኝነት እውነት	
	Social support question					
1	የድህረ-ወሊድ ጊዜ ሳለሁ በጣም የግል ፍጭንቀቴን እና ፍርሃቴን ላካፍላቸው የምችለው ማንም እንደሌለ ይሰማኛል።					
2	ታምሜ ከሆነ በዕለት ተዕለት ሕይወታችን ውስጥ የሚረዳኝ ሰው በቀላሉ ሊፈታ ይችላል.					
3	ከቤተሰቤ ጋር ስላጋጠመኝ ችግር ምክር ማነጋገር የምችለው አንድ ሰው ነበር። 4የግል የጤና ችግርን እንዴት መቋቋም እንዳለብኝ ጥቆማዎችን					

	ስፈልግ የሚረዳኝ ሰው አውቃለሁ					
4	ከቤት 10 ማይል ርቀት ላይ ችግር ቢገጥመኝ፣ መጥቶ የሚያመጣልኝ ልደውልለት የምችለው ሰው ነበር።					
5	የቤተሰብ ችግር ከተፈጠረ፣ ችግሩን እንዴት መቋቋም እንዳለብኝ ጥሩ ምክር የሚሰጠኝ ሰው ማግኘት አስቸጋሪ ነበር።					

SF-36 Questionnaires/ Amharic Version

እባኮን የሚከተሉትን 36 የጥናት ጥያቄዎችን በሙሉ በታማኝነት መልሶን ይስጡን

መለ/ተ.ቁ	ጥያቄ	መልስ	ኮድ
		አጠቃላይጤንነት	
1	ጤንነትዎ በአጠቃላይ ሲታይ ምን ይመስላል?	ሀ. እጅግ በጣም ጥሩ ነው ለ. በጣም ጥሩ ነው ሐ. ጥሩ ነው መ. ደህና ነው ሰ. መጥፎ ነው	
2	ከማርገዞ አስቀድሞ ካለው ጋር ሲነፃፀር በአጠቃላይ ጤንነትዎ ምን ደረጃ ላይ ነው ይላሉ?	ሀ. በጣም የተሻለ ነው ለ. በተወሰነ መልኩ የተሻለ ነው ሐ. ልዩነት የለውም መ. ተባብሷል ሰ. በጣም ተባብሷል	
የእንቅስቃሴ መገደብ የሚቀጥሉት ጥያቄዎች መሉ ጤነኛ በነበሩበት ጊዜ የሚያከናውኑዋቸው አሁን የጤናዎ ሁኔታ እነዚህ ተግባራት ማከናወን አግደዎታል፤ ከሆነ፤ ምንያህል?			
3	ከባድ እንቅስቃሴዎች እንደ ሩጫ፤ ከባድ እቃ ማንሳት፤ አድካሚ ሰፖርታዊ እንቅስቃሴዎች ማድረግ?	ሀ. አዎ ብዙ ገድቦኛል ለ. አዎ ትንሽ ገድቦኛል ሐ. አይ በጭራሽ አልገደበኝም	
4	መካከለኛ እነቅስቃሴዎች ጠረጴዛ መንቀሳቀስ፤ ቤት ማፅዳት፡ወዘተ...?	ሀ. አዎ ብዙ ገድቦኛል ለ. አዎ ትንሽ ገድቦኛል ሐ. አይ በጭራሽ አልገደበኝም	
5	አሰቤዛ ከገበያ ገዝቶ መሸከም ወይም ማነሳት	ሀ. አዎ ብዙ ገድቦኛል ለ. አዎ ትንሽ ገድቦኛል ሐ. አይ በጭራሽ አልገደበኝም	
6	ብዙ የፎቅ ደረጃ (ከበድ ያለዳገት ወይም አቀበት) መውጣት	ሀ. አዎ ብዙ ገድቦኛል ለ. አዎ ትንሽ ገድቦኛል ሐ. አይ በጭራሽ አልገደበኝም	

7	አንድ የፎቅ ደረጃ (ቀለልያለዳገት) መውጣት	ሀ. አዎ ብዙ ገድቦኛል ለ. አዎ ትንሽ ገድቦኛል ሐ. አይ በጭራሽ አልገደበኝም	
8	ጎንበስ፣ ቁጢጥ ማለት፣ በትንሹ ጎንበስ ማለት	ሀ. አዎ ብዙ ገድቦኛል ለ. አዎ ትንሽ ገድቦኛል ሐ. አይ በጭራሽ አልገደበኝም	
9	ከ 1.6 ኪ.ሜ በላይ መጓዝ (1600 እርምጃ)	ሀ. አዎ ብዙ ገድቦኛል ለ. አዎ ትንሽ ገድቦኛል ሐ. አይ በጭራሽ አልገደበኝም	
10	ከቤትዎ ራቅ ወዳላ ቤት መሄድ(የ 1 ጠጠር ውርወራ ያህል)	ሀ. አዎ ብዙ ገድቦኛል ለ. አዎ ትንሽ ገድቦኛል ሐ. አይ በጭራሽ አልገደበኝም	
11	ከቤትዎ አጠገብ ወዳላ ቤት መሄድ	ሀ. አዎ ብዙ ገድቦኛል ለ. አዎ ትንሽ ገድቦኛል ሐ. አይ በጭራሽ አልገደበኝም	
12	እራሶን ችለው ገላዎን መታጠብና ልብስ መልበስ?	ሀ. አዎ ብዙ ገድቦኛል ለ. አዎ ትንሽ ገድቦኛል ሐ. አይ በጭራሽ አልገደበኝም	
የአካል የጤና ችግር ባለፈው 1 ወር ግዜ ውስጥ በአካላዊ ጤናዎ መታወክ ምክንያት በስራዎና በዕለት ተለት እንቅስቃሴዎት ላይ የሚቀጥሉት ችግሮች ገጥመዎታል?			
13	በስራዎ ወይን በሌላ እንቅስቃሴ ላይ የሚያሳልፉትን ጊዜ ቀንሷል?	ሀ. አዎ ለ. አይ	
14	ከሚፈልጉት በታች አከናውነዋል?	ሀ. አዎ ለ. አይ	
15	የተወሰኑ ስራና ና የእንቅስቃሴ ብቻ ነው የሚያከናውኑት	ሀ. አዎ ለ. አይ	
16	ስራዎትን የተለመዱ እንቅስቃሴዎችን ለማከናወን ተቸግረዋል ማለትም ተጨማሪ ጉልበት ይጠይቆታል?	ሀ. አዎ ለ. አይ	
17	ስራዎት ላይ ወይም እነቅስቃሴ ላይ የሚያሳልፉት ጊዜ ቀንሷል?	ሀ. አዎ ለ. አይ	
18	መስራት ከሚፋልጉት በታች አከናውነዋል?	ሀ. አዎ ለ. አይ	
19	ስራዎትን እነደወትሮ	ሀ. አዎ	

	በጥንቃቄ አላከናወንኩም?	ለ. አይ	
ማህበራዊእንቅስቃሴ			
20	ባለፉት 4 ሳምንታት ውስጥ የስነልቦና ጫና ከማህበራዊ እንቅስቃሴዎች ገድበዎታል፣ ከቤተሰብ፤ ከጋደኝነት፤ ጉርብትና ወይም ከቡድን እንቅስቃሴዎች?	ሀ. በፍፁም ለ. በትንሹ ሐ. በመካከለኛው መ. በጣም ሰ. እጅግ በጣም	
ህመም			
21	ባለፉት 4ሳምንታት ውስጥ ምን ያህል ጊዜ የሰውነት ህመም አጋጥሞታል ?	ሀ. በፍፁም ለ. በጣም በትንሹ ሐ. በትንሹ መ. በመካከለኛው ሰ. ከበድ ያለ ረ. እጅግ በጣም ከባድ	
22	ባለፉት 4 ሳምንታት ውስጥ የአካል ህመም ምን ያህል ጊዜ ከቤትና ከውጭ ስራ አስተጓግሎታል	ሀ. በፍፁም ለ. በትንሹ ሐ. በመካከለኛው መ. ከበድ ያለ ሰ. እጅግ በጣም ከባድ	
ጉልበትና ስሜታዊነት የሚቀጥሉት ጥያቄዎች በለፉት 4 ሳምንታት ውስጥ በራስዎ ዙርያ ምን ሲሰማዎት እንደነበረ የሚሳዩ ናቸው እባኮን ከነበሩበት ሁኔታ ጋር ተቀራራቢ የሆነውን መልስ ይምረጡ			
23	በለፉት 4 ሳምንታት ውስጥ ሙሉ አቅም ይሰማዎታል?	ሀ. ሁልጊዜ ለ. አብዛናውን ጊዜ ሐ. ብዙጊዜ መ. አንዳንዴ ሰ. ጥቂትጊዜ ሰ. በጭራሽ	
24	ፈርተው /ተጨናንቀው ነበር	ሀ. ሁልጊዜ ለ. አብዛናውን ጊዜ ሐ. ብዙጊዜ መ. አንዳንዴ ሰ. ጥቂትጊዜ ረ. በጭራሽ	
25	ከባድ የድብርት ስሜት ተሰምቶት ነበር ምንም አላስደስት እስከሚሎት ?	ሀ. ሁልጊዜ ለ. አብዛናውን ጊዜ ሐ. ብዙጊዜ መ. አንዳንዴ ሰ. ጥቂትጊዜ ረ. በጭራሽ	
26	በለፉት 4 ሳምንታት ውስጥ	ሀ. ሁልጊዜ	

	መረጋጋትና ሰላማዊነት ተሰምቶት ነበር?	ለ. አብዛናውን ጊዜ ሐ. ብዙጊዜ መ. አንዳንዴ ሰ. ጥቂትግዜ ረ. በጭራሽ	
27	በለፉት 4 ሳምንታት ውስጥ ብዙ ጉልበት /ጥንካሬ ተሰምቶት ነበር ?	ሀ. ሁልጊዜ ለ. አብዛናውን ጊዜ ሐ. ብዙጊዜ መ. አንዳንዴ ሰ. ጥቂትግዜ ረ. በጭራሽ	
28	በለፉት 4 ሳምንታት ውስጥ ድብርትና ተስፋ መቁረጥ ተሰምቶት ነበር?	ሀ. ሁልጊዜ ለ. አብዛናውን ጊዜ ሐ. ብዙጊዜ መ. አንዳንዴ ሰ. ጥቂትግዜ ረ. በጭራሽ	
29	የመኖር ተስፋዎ ያበቃለት መስሎት ነበር?	ሀ. ሁልጊዜ ለ. አብዛናውን ጊዜ ሐ. ብዙጊዜ መ. አንዳንዴ ሰ. ጥቂትግዜ ረ. በጭራሽ	
30	ደስተኛ ሰው ነበሩ?	ሀ. ሁልጊዜ ለ. አብዛናውን ጊዜ ብዙጊዜ መ. አንዳንዴ ሰ. ጥቂትግዜ ረ. በጭራሽ	
31	ድካም ይሰማዎት ነበር?	ሀ. ሁልጊዜ ለ. አብዛናውን ጊዜ ሐ. ብዙጊዜ መ. አንዳንዴ ሰ. ጥቂትግዜ ረ. በጭራሽ	
የማህበራዊ ህይወት እንቅስቃሴ			
32	ባለፉት 4 ሳምንታት ውስጥ ምን ያህል ጊዜ የአካላዊ ወይንም ስነ-ልቦና ችግሮችዎ ማህበራዊ ህይወቶትን አስተጓግለዋል? (ለምሳሌ ጓደኛ መጎብኘት፡ ቤተሰብ መጎብኘት ወዘተ...)	ሀ. ሁልጊዜ ለ. አብዛናውን ጊዜ ሐ. ብዙጊዜ መ. አንዳንዴ ሰ. ጥቂትግዜ ረ. በጭራሽ	

አጠቃለይ ጤና የሚቀትሉት ጥቄዎች ለእርሶ ምን ያህል እውነት ወይንም ሐሰት ናቸው?			
33	ከሌሎች ሰዎች ይልቅ በቀላሉ የምታመም ይመስለኛል	ሀ. በርግጥም እውነት ለ. በአመዘኙ እውነት ሐ. አላውቅም መ. በአመዘኙ ውሸት ሰ. በፍፁም ወሸት	
34	እነደማቃቸው ሰዎች ሁሉ ጤነኛ ነኝ	ሀ. በርግጥም እውነት ለ. በአመዘኙ እውነት ሐ. አላውቅም መ. በአመዘኙ ውሸት ሰ. በፍፁም ወሸት	
35	ጤንነቴ ሁኔታ ይባባሳል ብዬ ጠብቃለሁ	ሀ. በርግጥም እውነት ለ. በአመዘኙ እውነት ሐ. አላውቅም መ. በአመዘኙ ውሸት ሰ. በፍፁም ወሸት	
36	ጤንነቴ እጅግ በጣም ጥሩነው	ሀ. በርግጥም እውነት ለ. በአመዘኙ እውነት ሐ. አላውቅም መ. በአመዘኙ ውሸት ሰ. በፍፁም ወሸት	

APPENDIX B

Table 1: Bivariate analysis for demographic and obstetrics related factors

Factors	Category	Counts	Maternal Health related quality of life		P- Value
			Low	High	
Age	16-25 years	67	83.6%	16.4%	0.000*
	26-35 years	246	43.5%	56.5%	
	36 years & above	70	47.1%	52.9%	
Marital Status	Single	8	25%	75%	0.495
	Married	327	51.7%	48.3%	
	Divorced	32	50%	50%	
	Separated	16	56.3%	43.8%	
Educational Level	Non formal	23	52.2%	47.8%	0.919
	Elementary	166	50.6%	49.4%	
	Secondary	101	51.5%	48.5%	
	Higher	93	51.6%	48.4%	
Partners Educational Level	Non formal	28	78.6%	21.4%	0.176*
	Elementary	150	48.0%	52%	
	Secondary	110	50.0%	50.0%	
	Higher	95	49.5%	50.5%	
Occupation	Governmental	93	49.5%	50.5%	0.932
	NGO	23	69.6%	30.4%	
	Self-employee	110	45.5%	54.5%	
	Daily labor	91	59.3%	40.7%	
	House wife	66	45.5%	54.5%	
Monthly Income	< 2000 ETB	92	30.4%	69.6%	0.271
	2000-3499 ETB	141	66.7%	33.3%	
	3500-4999 ETB	105	54.3%	45.7%	
	≥ 5000 ETB	45	37.8%	62.2%	
Religion	Orthodox	89	50.6%	49.4%	0.470
	Muslim	134	44.8%	55.2%	
	Protestant	145	60%	40%	
	Other	15	26.7%	73.3%	
Had other children	Yes	224	57.1%	42.9%	0.006*
	No	159	42.8%	57.2%	
Parity	Primparous	260	48.5%	51.5%	0.123*
	Multiparous	123	56.9%	43.1%	
State of last	Planned	351	49.9%	50.1%	0.088*

Pregnancy	Unplanned	32	65.6%	34.4%	
Received ANC	Yes	310	48.7%	51.3%	0.047*
	No	73	61.6%	38.4%	
Place of birth	Home	73	58.9%	41.1%	0.142*
	Health institution	310	49.4%	50.6%	
Mode of Delivery	Vaginal	314	50.3%	49.7%	0.475
	Cesarean	69	55.1%	44.9%	
Birth outcome	Alive	322	52.8%	47.2%	0.146*
	Dead	61	42.6%	57.4%	
Hospital admission after pregnancy	Yes	368	50.8%	49.2%	0.486
	No	15	60%	40%	
Hospital admission During pregnancy	Yes	375	51.7%	48.3%	0.135*
	No	8	25%	75%	
Postpartum depression	Depressed	159	54.7%	45.3%	0.243*
	Not depressed	224	48.7%	51.3%	
Social support	No	94	54.3%	45.7%	0.492
	Yes	289	50.2%	49.8%	

*indicates candidate variables selected for multivariable analysis