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PREVALENCE OF POSTNATALCARE UTILIZATION AND ASSOCIATED FACTORS AMONG POSTNATAL MOTHERS IN SODO ZURIA DISTRICT, WOLAITA ZONE, SOUTH ETHIOPIA, 2016

BY

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Abbreviations and Acronyms

AAU	Addis Ababa University
ANC	Antenatal Care
AOR	Adjusted Odd Ratio
CI	Confidence Interval
COR	Crude Odd Ratio
EDHS	Ethiopian Demographic Survey
FMOH	Federal Ministry of Health
HEWs	Health Extension Workers
MMR	Maternal Mortality Ratio
MDG	Millennium Development Goal
PMTCT	Prevention of Maternal to Child Transmission
PNC	Postnatal Care
SNNPR	South Nations Nationalities and Peoples Region
SPSS	Statistical Software Package for Social Sciences
TBA	Traditional birth attendant
UNICEF	United Nations Children Emergency Fund
WDA	Woman Development Army
WHO	World Health Organization

Abstract

Background: Maternal mortality ratios strongly reflect the overall effectiveness of health systems. Many low- income developing countries were suffering from administrative, inadequate financial investment, cultural influences, lack of education husbands and wives, lack of skilled health personnel and distance of health facilities. Of which huge maternal mortality ratio (almost more than -half of deaths) takes place within postnatal period.

Objectives : To assess prevalence of postnatal care utilization and its associated factors among mothers who delivered within last twelve months in Sodo Zuria District of Wolaita Zone; Southern Ethiopia, 2015/2016.

Methods: Community based cross-sectional study design was employed among mother who delivered within last twelve months. A total sample size of 394 was used. The study was conducted from March to April 2016. Variables that have statistically significant at bivariate logistic regression with p-value<0.2 were entered in to the multiple binary logistic regression model. P-value <0.05 was considered as statistical significant.

Result: Place of delivery, decision maker for PNC utilization, mothers with one live and mode of health delivery systems were statistically significant. Mothers who decided to follow PNC by their own and with their husband were 14.08 times [AOR=14.08, 95% CI: (2.278-86.980)] and 4.74 times [AOR=4.74, 95% CI: (1.179-19.039] more likely utilized postnatal care follow up as compared with for those their husbands decided about their wives respectively.

Conclusions: Postnatal coverage of the Sodo Zuria district was 77.7% with 93.7% of mothers having information about postnatal care services. Of those mothers who utilized postnatal services 64.1% attended it within 24 hours after delivery. The reason for not utilizing of postnatal care in the remaining mothers was home delivery and lack of decision making about them.

Key words: *Postnatal care utilization, utilization of postnatal care*

CHAPTER ONE

1. Introduction

1.1. Background

Globally, the maternal mortality ratio (MMR) has fallen by 45% between 1990 and 2013. All MDG regions of the world have experienced considerable reductions in maternal mortality. There were an estimated 289 000 maternal deaths in 2013, yielding an MMR of 210 maternal deaths per 100 000 live births among the 183 countries and territories in the world. The global adult lifetime risk of maternal mortality (i.e. the probability that a 15-year-old woman will die eventually from a maternal cause) was 1 in 190 in 2013(1).

Maternal mortality ratios strongly reflect the overall effectiveness of health systems, which in many low- income developing countries suffer from administrative, technical and logistical capacity, inadequate financial investment, cultural influences lack of education, husbands over dominances, low educational status of mothers and their husbands, lack of skilled health personnel and distance of health facilities and place of residence. From these huge maternal mortality ratio, almost more than half of deaths take place within postnatal period(2). Different researches revealed that maternal mortality ratio of developing countries is much more than that of the developed counties in which maternal mortality is significantly reduced(3).

Ethiopia is one of developing countries in which MMR is 420/100,000 and a high neonatal mortality ratio (NMR) which is 28/1000 (4). Of which large proportions of maternal and neonatal deaths occur within 48 hours after delivery (5). The first two days following delivery are critical for monitoring complications arising from the delivery. Thus, PNC is important for both mother and child not only to treat complications arising from the delivery, but also to provide the mother with important information on how to care for herself and her child. Safe motherhood programs have recently increased emphasis on the importance of postnatal care recommending that all women receive a health checkup within two days of delivery(5–12). The Ethiopia

Demographic and Health Survey, EDHS, 2011 data shown about the highest postnatal care (PNC) coverage was reported in Harari region which is (19.3%) and the lowest PNC coverage is in Somali region which is(4.5%) (12).

Another study conducted in Sidama Zone.Southern Ethiopia, revealed that utilizations of professional assisted delivery care and PNC among the study population was very low. With regards to the level of PNC, the finding documented that the proportion of the sample households/children who got complete immunization is very low (only 37.2%) compared to many population groups in Ethiopia. The poor utilization of delivery and postnatal care service has often been attributable to the unpredictable onset of labor, making it difficult for women to travel long distances as well as some factors associated with cost of delivery of care (9).

Different researches carried out in different regions of the country revealed that there are so many reasons which are not well identified hinder women from attending health institutions to seek their PNC service after delivery. In general, Ethiopia has low postnatal utilization coverage (7,9–15).

1.2. Statement of the problem

Postnatal period begins immediately after the birth of the baby and extends up to six weeks (42 days) after birth (7). It is risk period especially the first 24 hours and the first seven days after delivery which needs postnatal care follow up according to the WHO standards. Based on the guideline, contact time is within one hour of birth to 24 hours, 2-3 days, 6-7 days, at 6 weeks and extra contacts two or three visits for mother with Human Immune Deficiency Virus (HIV) and low birth weight infants (7). Knowing of the prevalence and associated factors of post natal care utilization is very important in reduction of maternal and new born mortality(16) .

Worldwide, in average, 50% of mothers follow postnatal care service. In developed countries the coverage is higher than 80% and in developing counties like Sub-Saharan African (SSA) and some part of Asian countries its coverage is below 50% in (5,7,13,17–21). It has been reported that only 37 percent of women have received postnatal check-up within the 42 days after birth in Uttarakhand, India(22).

Based on the EDHS 2011report, it shows that only 33.5% among urban residents and 5% of rural residents had used PNC services (11). The low coverage of postnatal care is causing to continuous high maternal and new born morbidity and mortality that affects MDGs 4 and 5. It is also challenge for planning and implementing of PNC as well as many opportunities are missed with low PNC coverage including exclusive breastfeeding, prevention of maternal to child transmission of HIV (PMTCT) , providing of family planning and maternal and new born care (2,4,6,16,23).

The consequence of non-utilization of postnatal care service are high number of maternal deaths that affect the family, new born even old children survival and increase number of orphans, decrease productivity of the households. Despite of the fact that high maternal and new born morbidity and mortality there has been low/little political and professional attention is given towards postnatal care. There are many factors that affect postnatal care checkup such as socio-economic status, geographical location, maternal education, culture, belief, religions, income, quality of care, access,

availability, previous post natal care experience, health care system and women participation in decision making are some of the factors that affect PNC (19–21,24–28).

There are discrepancies in access to maternal health care between the rich and poor, urban and rural and educated and uneducated societies, and also there is large gap in PNC coverage between developed and developing countries. There is lack of knowledge and information on post natal care service including the postpartum period and its danger sign symptom. Mothers not know what is post natal care service, when and where to receive and they do not come back to health facility after they give birth even though they have access and suffering with the complications. Health education that provide by health professionals is not sufficient, there is poor approach of health providers and low quality service.

Finally these all researches shown that the coverage of PNC utilization were below 50% in Ethiopia and the factors affecting mothers not to attend PNC services were not well identified in study area. Therefore the study was design to determine the prevalence of utilization of post natal care and associated factors Sodo Zuria District, Wolaita Zone, South Ethiopia, March 2016.

1.3. Significance of study

The significance of study is that many studies have been showed that the coverage of postnatal care follow up is below 50 percent and what factors affect the postnatal care follow up are not well identified in study areas. Despites the fact that, it has very significant impact on maternal and new born morbidity and mortality; postnatal care is yet marginalized/ neglected and little attention and efforts has been paid by health care practitioners and policy makers to this simple preventable and avoidable problem. There is a little information and less actual practice in postnatal care follow up at the ground level in the community. Therefore, it is the right time to conduct this study on assessment of factors associated with recommended postnatal care utilization in order to contribute an input for better planning, implementation of postnatal care and to provide other opportunities, attention and efforts by all concerned sectors to reduce maternal and infant mortality.

CHAPTER TWO

2. Literature Review

2.1. Postnatal Care Utilization

The World Health Organization (WHO) guidelines on postnatal care recommend essential routine PNC for all mothers, essential routine PNC for all newborns, extra care for low birth weight or small babies and other vulnerable babies, and early identification and referral/management of emergencies for mother and baby. WHO guidelines further recommend postnatal visits within six to 12 hours after birth, three to six days, six weeks, and at six months(16,23)

Women experience a number of the problems during childbirth and postpartum period, six weeks following delivery. Such problems can be detected and treated through proper follow-up visits for women in the postpartum period. Postnatal registration is especially vital in order to receive appropriate medical advice to regain health after the strains of child bearing of mother and proper care for the well-being of the newborn baby. Postnatal care includes advice regarding nutrition, breastfeeding, receiving free medicine, tonic, other vitamins, food supplements, etc. Treatment of complications that might have occurred during delivery requires attention of trained professional(29).

Cambodian DHS report shown that 61 percent of women received a postnatal checkup during the first 24 hours following birth, and 38 percent of them received it within the first 2 hours. Postnatal care within the first 24 hours after birth was higher in urban area than in rural areas (77 percent and 58 percent respectively)(30).

Survey conducted in rural India indicated that only 44% of the mothers interviewed in the survey received any PNC check-up within 48 hours of giving birth. Moreover, only 45% of the newborns were checked within 24 hours. Around 62% of the babies did, however eventually receive two or more check-ups within the first 10 days after birth. As expected, a majority of these babies were seen in a private facility

(55%)(31). Similar study conducted inNepal based on NDHS shown that less than half (43.2%; 95% CI (39.9 – 46.5%)) of the mothers had attended at least one postnatal care visit, with two in five women (40.9%; 95% CI (37.7- 44.2%)) reporting immediate postnatal care within 24 hours of delivery(28). Community based cross sectional study conducted in the same country western district shown that 25.1% attended any PNC, 13.5% attended early PNC and 19.3% sought PNC service from health worker(27). Another study carried out rural area in similar country shown that large number of maternal and neonatal deaths occurs during the first 48 hours after delivery. Although the study included both those who delivered outside and within a health facility, the utilization of postnatal care was found to be low (34%). Moreover, care within 48 hours was found to be infrequent (19%). This is very low compared with the nearly 90% uptake of postnatal services reported in developed countries . Women who delivered at health facilities had more access to postnatal care (27).

Study conducted in Bangladesh to assess factors affecting postpartum care revealed that the postpartum care by medically trained personnel and within the most critical period (within 48 hours after delivery) was found to be very low (25.5 and 16.6%). Regarding postpartum morbidities, only one-fifth to one-half of the women reporting a complication consulted medically trained providers. Indeed, between one third and two thirds did not seek any postpartum care. The highest percentages contacting healthcare providers were for convulsions and the lowest was when the baby‟s hands or feet came first (28).

Study conducted in Central Provincial General Hospital - Neyri in Kenya revealed that the PNC coverage was only 14.2% which was almost equal to sub Saharan Africa where only 13% utilizes postnatal care services (20). Another research conducted in Kenya based on Kenya DHS of 2008-09 revealed that only 47% women of reproductive age in Kenya used PNC services (29).

The research conducted based on the 2011 EDHS data revealed that the percentages PNC utilization by regions were: Harari (19.3%), Gambela (13.8%), Tigray

(13.7%), Dire Dawa (10.1%), Benishangul-Gumuz (9.7%), Amhara (8.4%), Oromiya (7.6%), Afar (6.9%), SNNP (6.4%), and Somali (4.5%) (12).

A community-based cross-sectional study design was conducted in Dembecha district; west Gojjam zone of Amhara National Regional State of Ethiopia shown that the level of postnatal care service utilization was 34.8% of which 33.7%were within 48 hours of postpartum and about 0.8% within 2-7 days of delivery. About 77% percent of women had got ANC service during last pregnancy while 31.4% of the sample women had delivered their last child in health institution. From the total ANC attendants, only (41.3%) had got postnatal care service. While among home delivered women only 35 (4.8%) received PNC service the rest 30% were women who had delivered at health institution (8). Similar study conducted in the same region in Gondar Zuria District revealed that (84.39 %) of mothers were aware that they should receive PNC services after delivery but only (66.83 %) of them attended postnatal services (11). Another Cross Sectional Study conducted in Tigray region in Abi-Adi Town Ethiopia indicated that the level of postnatal care utilization in the town is very low (11.9%) (6). Similar study conducted in the same region in Adwa Town revealed that (78.3%) mothers had attended postnatal care service while 73 (21.7%) hadn‟t attended the service (30).

Another study conducted in Southern Region in Sidama Zone Which is near to current study area revealed that the PNC coverage is low compared with other part of Ethiopia which is only 37.2%. (9)

2.2. Factors Affecting PNC

2.2.1. Age of Women

A research carried out in Kenya reported that 66.7% is below 20 years of age did not attend PNC while 33.3% did. Of those in the age 21 to 30 years, 86.0% did not attend, 90.7% of those in age 31 to 40 years did not attend PNC services while none of those in the age 41 to 50 years attended the PNC services. Clinic attendance was associated with age of client which was of statistical significant (p=0.034) as determined by

Pearson chi-square test greater than 5 and P-value less than 0.05 (20). According to research conducted in Ethiopia based on EDHS data shown that age of mother is one of important factors to affect PNC services and it indicated that about 12.1% of younger mothers, 9.5% of adult mothers and 6.7% of older mothers used the service (12).

2.2.2. Marital status

The study carried out in Kenya shown that single women were better at attending postnatal clinic compared to married women. Majority of married women 89.1% did not attend postnatal, 72.2% of single women did not attend postnatal services. Majority of single women attended postnatal services 27.7% whereas only 10.9% of married women attended postnatal which was statistically significant (p=0.011) as determined by Pearson chi-square test(25).The similar study conducted in Ethiopia shown that never married women were found to be more likely to use skilled ANC attendants (AOR= 1.3, 95% CI = 1.1-1.6) and PNC services than others (AOR= 1.8, 95% CI =1.1-3.2). Married women were less likely to use ANC attendants and PNC services (10).

2.2.3. Educational status and awareness about PNC

The study conducted in Belgium confirmed that the level of awareness on PNC (P = 0.002) and education of the mother (P = 0.02) were important contributing factors of PNC utilization. Educated women were double folds (95% confidence interval (CI): 1.24-4.75) more likely to receive service than those who had no education, and women who were highly aware were 2.54 times (95% CI: 1.133-5.904) more likely to do so than those who were less aware (31). Similar study conducted in Nepal confirmed that as education of women increases so did the likelihood of having postnatal health care. Women with secondary school education had 6.49 times (95% CI= 2.5 – 17.2) more chance of receiving postnatal care than illiterate women (p = 0.001). Similarly women with a husband educated to secondary school level (OR = 6.3; 95% CI = 1.55 to 29.95) had a significantly greater chance of having postnatal care than those with an illiterate husband (27).

The study carried out in Nepal based on NDHS confirmed that husband‟s education also had positive effect on postnatal care, whereby mothers‟ who had partners with higher education were more likely to attend postnatal care (AOR 1.736; 95% CI (1.099-2.742)) (23). Similar study conducted in India shown that the utilization of PNC services substantially increases with the increase of the educational level of women (18).

Many studies conducted in different part of the world revealed that education had great influence in postnatal care utilization. In contrary, a research conducted in Kenya revealed that the education level of the respondents ranged from primary to tertiary level does not influence utilization of postnatal services for 96.6% of respondents with tertiary education did not utilize the postnatal while only 3.4% utilized the services. Majority of the respondents who utilized the postnatal care services 21.7% attained primary education (20).

A research conducted based on EDHS 2011 indicated that approximately 12.3% of mothers whose husbands/partners had primary or above education, and 7% of mothers whose husbands/partners had no education used this service. The utilization rates for mothers who had no education and mothers with primary or higher education were 7.4% and 14%, respectively (12).The study conducted in Tigray region shown that Mothers who were unable to read and write were 86% less likely utilize post natal care follow up as compared to mothers education college level and above [AOR=0.142, 95% CI: (0.021-0.970)]. Mothers who agreed the importance of postnatal care utilization were 7.5 times more likely to utilize post natal care as compared to mothers who are not sure whether postnatal care was importance or not [AOR=7.5, 95% CI: (1.121- 50.065)] (6). Similar study conducted in Jabitena district, Amhara region, Ethiopia level of education showed strong statistical association with postnatal care service utilization. Mothers who attended secondary school were about 4 times (AOR=4.16, 95%CL : (2.48, 8.71) more likely to utilize postnatal care service than illiterate women (32).

2.2.4. Occupational Status

The study conducted in Nepal shown that occupation of women was highly associated with utilization of postnatal care. Housewives were 7.25 times (95% CI = 2.94–18.18) more likely to have had postnatal care than women who reported farming as their main occupation. Similarly the husband's occupation status is associated with postnatal care uptake (p = 0.001). Husbands with a formal-sector job such as teaching or civil servant (OR = 3.23; 95% CI = 1.43 – 7.32) were more likely to have wives who attended postnatal care (27). Another study carried out in Nepal based on NDHS shown mothers working in agriculture (AOR 0.623; 95% CI (0.481-0.807)) were less likely to attend postnatal care. Also mothers whose partners performed professional (AOR 1.718; 95% CI (1.354-2.179)) and manual (AOR 1.398, 95% CI (1.102-1.772)) occupations were more likely to attend postnatal care (23).

Study conducted based on EDHS indicated that 11% and 8.6% of employed mothers and unemployed mothers, respectively, used the PNC service and similarly study conducted by *Hailerman et al* indicated that the occupation of women was associated with having received postnatal care. Self employed mothers were 9.1 times (OR=9.1; (95%) CI = 2.22, 37.28) more likely to have had postnatal care than women who hadn"t any job (12,30). Another study conducted in Amhara region reported that at the communal level, the odds of postnatal care by a skilled provider significantly increased among women belonging to communities who had mixed (farming and trading) source of income compared with those belonging to only farming as the main source of income (33)

2.2.5. Economic status

A community based cross-sectional studied conducted in India revealed that monthly income of family is proved to be most significant contributing factor of PNC service utilization. Women who had high family monthly income were 2.08 times (95% CI: 1.18-3.65) more likely ($P = 0.01$) to have obtained postnatal care (PNC) service than women with low income. It is interesting to note that the study also showed the women whose husband perform the farming or labor work were 1.84 times (95% CI:

1.247-2.710, P = 0.002) more likely to use the service than those who were government or private officials or business person (31). Similar study conducted in Nepal based on NDHS shown that Mothers from middle (AOR 1.638; 95% CI (1.260-2.129)), and rich (AOR 3.182; 95% CI (2.171-4.665)) families were more likely to attend postnatal care (23).About 6.8%, 8.4% and 16.1% of mothers with the lowest, middle and highest wealth indices, respectively, utilized the service in Ethiopia (12).

2.2.6. Type and Size of Family

Type and size of the family also contributed the important role for utilizing of the PNC service. The study revealed that the women who were from joint family were 1.54 times (95% CI: 1.247-2.710) more likely (P = 0.03) to use the service than the women from nuclear family. Similarly mothers who were from large family were 2.017 times (95% CI: 1.089-3.739) more likely (P = 0.02) to use the services than mother who were from small family (31). Similar research conducted in south Ethiopia confirmed that women with large family or who have 4-6 children were 55.5 % less likely to attain full immunization. This is because mothers who bring their infants for immunization program can receive postnatal care services simultaneously (9).

2.2.7. Place of Delivery

Women who used institutional delivery services were 2.42 times (95% CI: 1.24-4.74) more likely (P = 0.008) to use the PNC service than the women who delivered in home (31). Similar study conducted in Nepal revealed that women who delivered in the hospital were ten times (95% CI= 4.64 to 23.7) more likely to have received postnatal care than the women who delivered at home (27). Another study conducted in Nepal based on Nepal DHS shown that place of delivery had the strongest effect on the attendance of postnatal care showing that mothers who delivered in a health facility (AOR 31.084; 95% CI (22.416-43.106)) were more likely to attend postnatal care than mothers who delivered at home (23).

Study conducted in Amhara region revealed that place of delivery is one of an important predictor of postnatal care service utilization. Mothers who gave birth their last child in health institutions were about 4 times (AOR: 3.6, 95%CI: [1.79, 2.32]) more likely to utilize postnatal care service utilization (32).

2.2.8. Age of Women at Pregnancy

Women who were first pregnant in their normal age (20-34 years) were 1.554 times (95% CI: 1.020-2.369) more likely ($P = 0.03$) to use the PNC service than the women who were got their first pregnancy in teenage or 35 years and more (31).

Another study conducted in Kenya revealed that majority of respondents who were 66.7% in below 20 years of age did not attend PNC while 33.3% did. Of those in the age 21 to 30 years, 86.0% did not attend, 90.7% of those in age 31 to 40 years did not attend clinic while none of those in the age 41 to 50 years attended the clinic. Clinic attendance was associated with age of client which was of statistical significant (p=0.034) as determined by Pearson chi-square test greater than 5 and P-value less than 0.05 (21).

The research conducted in Ethiopia indicated that age is one of significant indicator for PNC utilization. The OR of maternal age groups of 15- 19 and 20-34and their PNC is respectively ,OR= 0.872 (95% CI: 0.568-1.337) and OR = 1.240 (95% CI:0.927-1.658) compared to those mothers of age 35-49 (12).

2.2.9. Number of parity

The research carried out based on EDHS 2011 indicated that Women with only one birth were more likely to use PNC services than those who had 5 or more births (AOR = 1.4, 95% CI = 1.1-1.9)and in the similar way the research conducted in Amhara region indicated that the odds of having four and above children decreased the chance of utilizing postnatal care service by about four fold (AOR=3.680, 95% CI : (0.04, 0.8) more likely than having one birth (10,32).

2.2.10. Use of ANC Services

Women who used the ANC service during their pregnancy time were 2.27 times (95% CI: 1.08-4.75) more likely ($P< 0.02$) to use the PNC service than those who did not used so (31). Another study carried out in Nepal shown that women who had attended antenatal care were more likely to attend postnatal care (OR = 24.6; 95% CI 3.39 to 500.92) (27). Study done in Nepal based on NDHS indicated that mothers who had attended the recommended four or more ANC visits were more likely to attend any postnatal care than the mothers who did not attend any ANC visits (AOR 3.624; 95% CI (2.343-5.604))and similar research carried out in Uttarakhand concluded that utilization of antenatal has positive impact on the use of postnatal care (18,23).

A research conducted in Gondar Zuria distric revealed that the positive association between history ANC visit and PNC. Those mothers who attended ANC service have great chance to attend PNC (12).

2.2.11. Place of residence

The research carried out in Nepal shown that the place of residence and ecological regions were significant showing that mothers from urban (AOR 3.539; 95% CI (2.725-4.736)) and mothers from Terai (Plain) region (AOR 2.474; 95% CI (1.680-3.647)) were more likely to attend immediate postnatal care than mothers living in rural and mountain areas, respectively (23). Similar study conducted in India confirmed that postnatal checkups soon after the delivery are particularly important to reduce the maternal and neonatal deaths. It is found that only 37 percent of women have received postnatal checkups within the 42 days of the birth. Births to urban mothers are almost twice as likely to be followed by a postnatal checkup (60 percent) as births to rural mothers (30 percent) (18).

A research conducted in Ethiopia based on EDHS of 2011 confirmed that the residence of mother is highly affecting the postnatal care services. Use of PNC service was more likely among urban residents compared with rural residents (AOR = 2.6, 95% CI = 2.0-3.4). This means those mothers who are living in urban have great

chance to use PNC service. Whereas mother who are living rural have less chance to get the services (11).

2.2.12. Distance from health facility

The distance to health facility is either a push or pull factor that also plays an important role in utilization of postnatal care services. It makes sense that healthcare personnel and facilities must be easily accessible to where patients, in this case, mothers live and work. This enables mothers to have the means and knowledge of getting to those services which encourages the utilization of these vital medical services. The ease of access to postnatal care services may be facilitated or hindered by the location and physical distance of the service from the client. In other words, the effectiveness of the PNC service, through its utilization may be hindered by the lack of access or the other way round. Distance may impede or enhance utilization of a healthcare service. Of all the women who resided less than 5 kilometers from the hospital, 15.3% attended postnatal clinic in the first two weeks following delivery, 17.6% of those residing between 5 and 10 kilometers attended postnatal care while nearly all the mothers 92.9% who were 10-15 kilometers from the hospital did not attend postnatal care. All mothers living more than 15 kilometers from the hospital did not attend the postnatal care services within 2 weeks after delivery in Kenya (25).
According to EDHS report of 2011 the distance from health facility is one most important barrier which hinder mothers from seeking health care especially postnatal care service (6).
Another research carried out in Amhara region indicated that 33.17%mothers who did not use PNC services provide different reason for not attending PNC service. Majority of them raised that lack of time and the long distances are the major problem(12).

2.2.13. Factor related with Health workers

A study carried out in Kenya confirmed that 65.2% respondents were unhappy with PNC services; because too long waiting time was, 7.2% said the health workers were not polite, 20.4% complained they were attended to by students who were not supervised while 7.2% said the clients were not strictly served on a first come first

served basis and these were among the reasons that discouraged clients from seeking services(25).

Mothers who give birth at health institution that have not received counseling/advice by health workers to come back to follow postnatal care were 88% less likely utilize post natal care follow up as compare those who give birth at health institution that provides counseling/advice to come back to follow postnatal care check-up [AOR=0.116, 95% CI: (0.046-.294)(7). A research conducted in Northwest Ethiopia reported that there are three predictor variables, two from the individual level and one from the communal level significantly associated with postnatal care by a skilled provider. At the individual level, women who preferred skilled provider for their maternity care, and women who had experience of at least one antenatal care for their previous pregnancies used a skilled postnatal care more likely compared with those who did not have such characters(15).

2.2.14. Factors related with Decision making

Regarding decision making on seeking PNC services 48.5% made the decision to seek postnatal care on their own about when to seek care while in 42.2%, both herself and partner make the decision on seeking care. A minority 7.1% and 2.1% respectively had the decision made for them by partner or other persons respectively(25).

Study conducted in Amhara region revealed that postnatal care service utilization is increased with increasing decision making power of mothers. Mother who were autonomous to make health care decision by themselves were about 13 time more likely to utilize postnatal care service than those whose health care decision was made by others (AOR:12.7,95%CI:[1.35, 4.5])(36).

2.2.15. Health related problems

In research conducted in Kenya out of the 29 respondents who had health problems that barred them from attending PNC, 44.8% had bleeding problems, 27.6% had baby‟s umbilical cord problems, 13.8% reported that the respondent was sick and in

13.8%, the baby was sick. The health problems which barred them from attending postnatal care are the major causes of maternal deaths(25).

2.3. Conceptual Framework

It is conceptualized that independent variables such as the social demographic factors such as (maternal age, mothers‟ education, father‟s education, occupational status, place of residence, marital status, size of family) obstetric factors such as (use of ANC services, place of delivery, number of pregnancy) , and infra structures and other persona factors such as (awareness, accessibility /availability of PNC, decision maker to seek PNC, transportation availability) and health workers and health related factors such as (Quality of PNC, Sex of health worker and Health problems) these all factors influence the dependent variable, which is utilization of PNC services. This conceptual frame work was adapted from a research carried out in Kenya with topic *Factors Affecting Utilization Of Postnatal Care Services*(25). These relationships between the independent variables and the dependent variables are illustrated in the conceptual framework bellow.

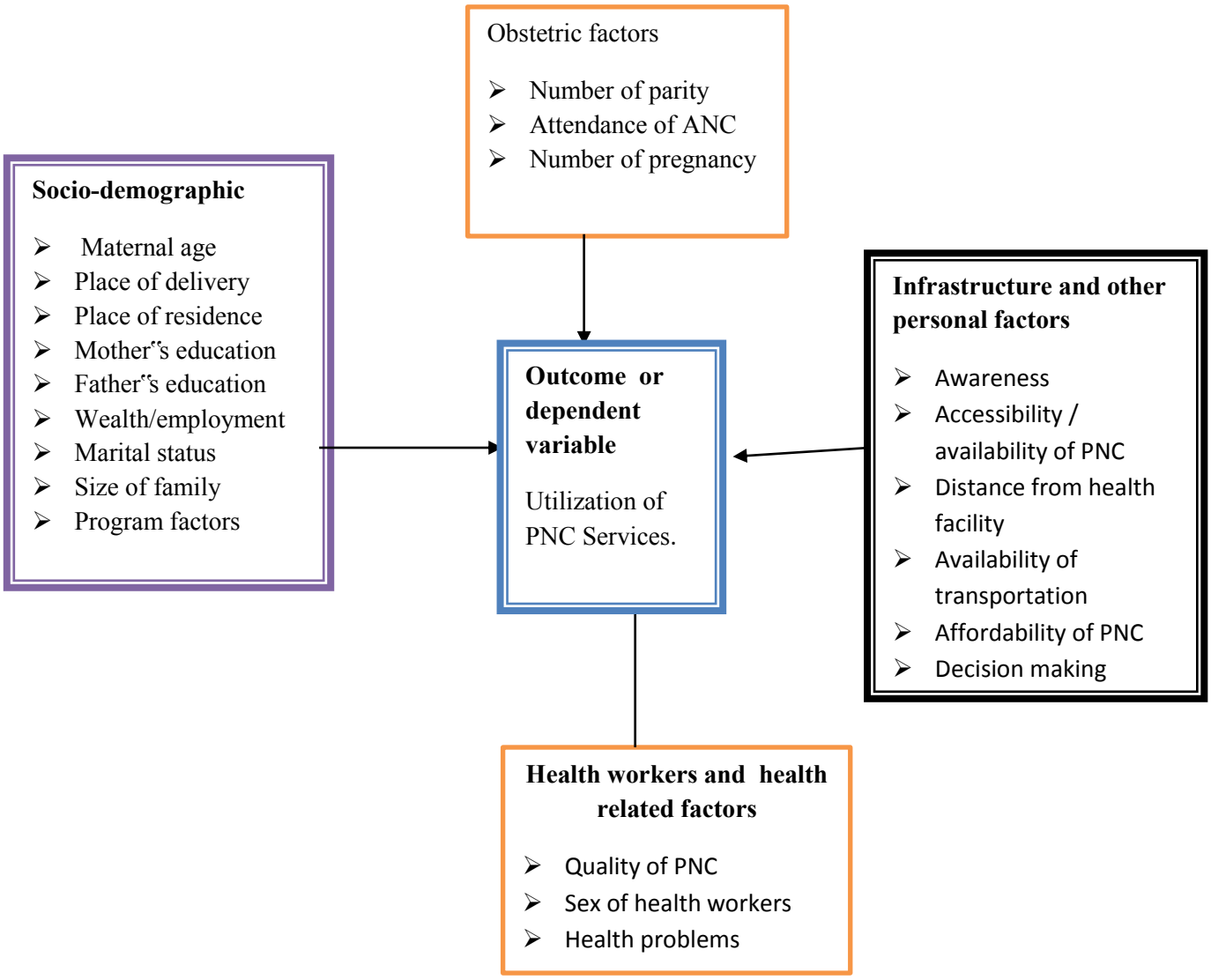

Figure 2.1 Conceptual framework explaining the relationship between the independent factors and the dependent factors.

Source: Study AC, Peter B, Kinuthia M. Factors Affecting Utilization of Postnatal Care Services in Kenya(25).

CHAPTER THREE

3. Objectives

3.1. General Objective

The general objective of this study is to assess prevalence of Utilization of Postnatal Care and associated factors among mothers who delivered last twelve months in Sodo Zuria District of Wolaita Zone; Southern Ethiopia, 2016.

3.2. Specific Objectives

The specific objectives

- To determine the prevalence of Utilization of Postnatal Care in Sodo Zuria district, Wolaita Zone SNNPR
- To identify factors associated with Utilization of Postnatal Care in Sodo Zuria district, Wolaita Zone SNNPR

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CHAPTER FOUR

4. Methods

4.1. Study area

This study was conducted in Sodo Zuria District of Wolaita Zone. The capital, Sodo town, is about 360 km away in the south direction from Addis Ababa. It is one of fourteen zones of SNNPR (South Nation; Nationalities People‟s Region) in Ethiopia. Wolaita zone has a total area of 4,511.7 square kilometers. Based on the projection of the 2007 Population and Housing Census, the population of Wolaita Zone is about 1,888,390 in 2014, out of which 50.73% is female and 49.27% male. It has three town administrations namely Sodo, Areka and Bodit towns and 12 districts or weredas. There are 3 hospitals (one governmental referral hospital, one non-governmental hospital and one private hospital) in Wolaita Zones. Sodo Zuria is one of 12 districts in Wolaita zone. Its population size was 172632 and from this 51% was females the rest 49% were males. It 31 kebeles and 7 governmental health centers (37) .

4.2. Study period

The study was conducted from March 1 -30 , 2016

4.3. Study design

A community based cross-sectional study design was employed. This design was ideal due to the fact that the period and budget to conduct the study was limited.

4.4. Source population

All mothers of infants who delivered at both health facilities and home 6 weeks to 12 months prior to the survey in Sodo Zuria District of Wolaita Zone, Southern Ethiopia.

4.5. Study population

Mothers who delivered their last baby at both health facilities and at home prior to 6 weeks to 12 months of survey in the study area.

4.6. Sample size

The sample size of this study was calculated using formula for estimating single population proportion. Taking proportion of PNC p=37.2 %(10). The maximum allowable error (5%), n=358, adding a non-response rate 10% , the final sample size will be 394. This figure was calculated as follows

$n = ((Z_{\alpha/2})^2 Xpq/d^2) +10\%$

At CI 95% , $Z_{\alpha/2}$=1.96 and maximum error 5 % in this d was $(0.05)^2$

p = Taking proportion of PNC p=37.%(10). Which is 0.37

q= will be 1-p then which is equals to 0.63

When it was calculated

$((1.96)^2(0.37x\ 0.6\ 3)/(0.05)) +36 =394$

4.7. Sampling procedures

For sampling procedure simple random sampling method was applied in the study. Firstly 10 kebeles were selected from total 31 kebeles of district by using the simple random sampling method. Then, proportional allocation of samples to each kebele was done based on its population size. For this allocation of samples to each kebele, the sampling frame, wereda‟s lists of mother who delivered within last12 months were selected, then mothers who delivered less than six weeks to survey were excluded. The same sampling procedure was used to select households of mothers with less than 12 months infants (9). This is because there is sampling frame of study unit.

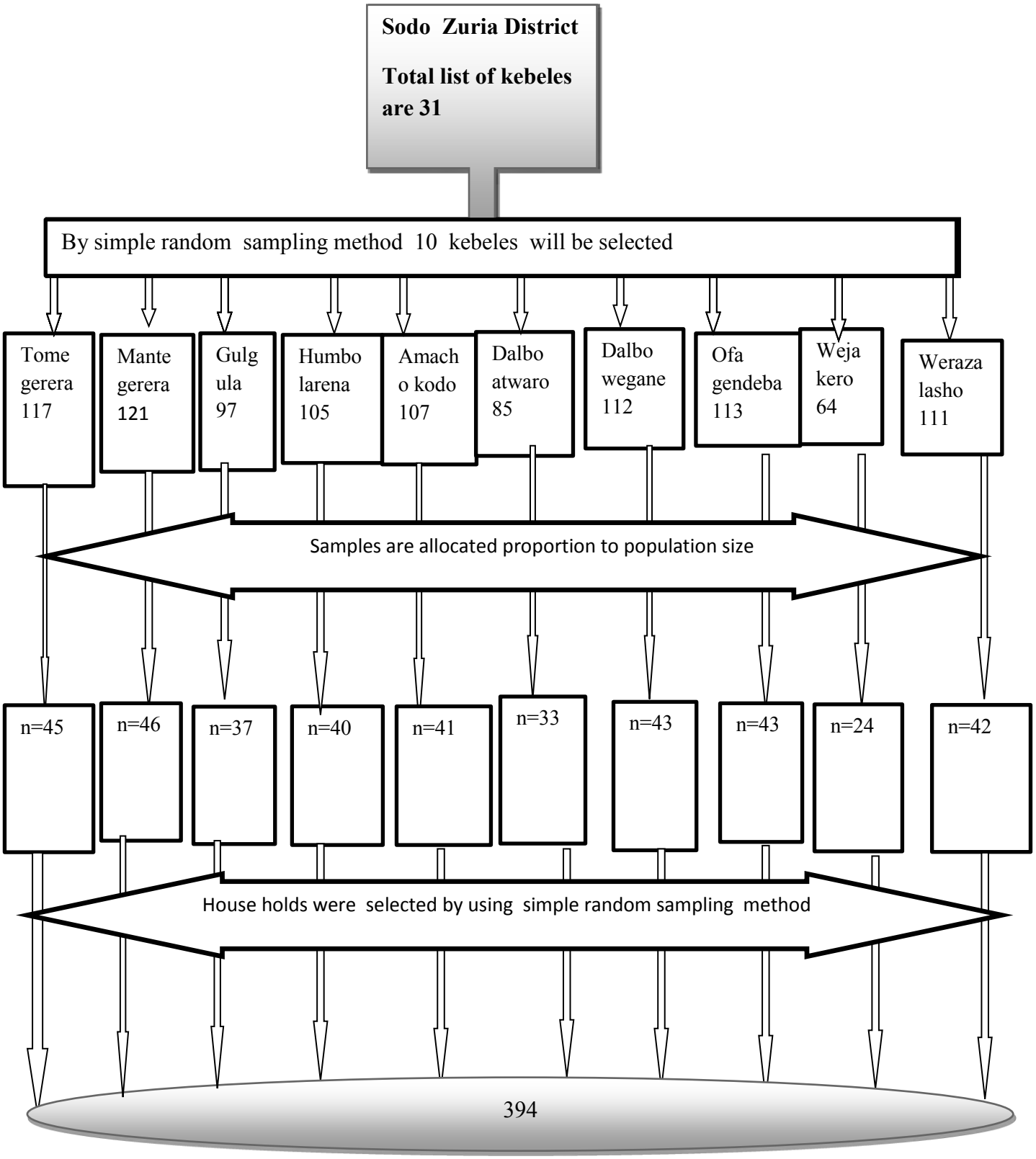

Figure 4.1 schematic presentation of sampling procedure

4.8. Eligibility criteria

- **Inclusion criteria**:

All mothers gave birth prior to 6 weeks to 12 months of survey were included

- **Exclusion criteria**:

Mother gave birth less than six weeks to data collection period were excluded.

Mothers gave birth prior to 6 weeks to 12 months and refused questionnaire and critically ill were also excluded.

4.9. Data collection instrument

The instrument is adapted from tool developed by WHO, different literatures and, Ethiopian Demographic and Health Survey (EDHS). The questionnaires which were prepared in English based on different literatures were translated into Amharic by professionals. This translated Amharic questionnaire was translated back to English by other professional. Two questionnaires were compared to check differences.

The collection data instrument had:-

Section 1: Socio demographic characteristics

Section 2: awareness about postnatal care utilization

Section 3: Factors affecting postnatal care utilization (likert scale for two satisfaction questions were adapted from likert scale developed by James Dean Brown (38).)

4.10. Pretest

Pretest was done in Boditi Town which was 18km away from the study area by using 10 % of total sample size. This was done to familiarize the data collectors with the assessment tool and to check the appropriateness of the questionnaire. Little changes have been made to questionnaire. After checking grammatical errors of assessment tool the data were collected.

4.11. Data collection procedures

The data was collected from mothers by trained female diploma nurse data collectors revised questionnaire which was adapted from tool developed by WHO, different literatures and Ethiopian Demographic and Health Survey (EDHS). It assessed socio-demographic characteristics and health factors that affect PNC services as self-reported by selected mothers. Eight female enumerators who were diploma nurses with previous data collection experience were recruited and collected the data. In addition, another four health professionals were employed to supervise data collection during field work procedures in 10 kebeles of study area (randomly selected kebeles) to ensure data quality. This was done through supervising enumerators while the data was being collected. The data was obtained by face to face interview technique using interviewer administered questionnaire in respondent‟s house.

4.12. Variables

- **The dependent variable**: The dependent variable for this study was Postnatal Care utilization.
- **The independent variables**:
  - **Health and health facility related factors**: these factors included counseling to follow postnatal care within 24 hours, 2-3 days 6- 7days and 8 to 42 days after delivery, encourage the mothers to follow postnatal care for her and for her neonate‟s immunizations, family planning, ANC follow up, mode of health delivery system a infections related with postnatal care . Informing mother to use family planning and helping her in her decision.
  - **Socio demographic characteristics**: Maternal age, educational status, income, maternal and paternal occupation, place of residence.
  - **Obstetrics and other factors**: parity, birth interval, place and mode of delivery, ANC and PNC counseling on immunization and family planning

4.13. Operational definitions of variables

- **Utilization of Postnatal Care:** mothers used PNC services at least one time within 42 days after delivery.
- **No Utilization of Postnatal care:** mothers who did not use PNC services at least one time within 42 days after delivery.
- **Awareness** : If mothers recognize at least one postnatal danger sign (30).
- **Long distance**: a distance longer than 15 kilometers from health center(25).
- **Short distance**: a distance less than 5 kilometers from health(25).
- **Medium** : a distance between 5 and 15 kilometers from health center(25).
- **Younger mother** : is age group between 15-24(25).
- **Adult mother**: is age group between 25-34(25).
- **Old mothers**: is age group 35 and above(25).

4.14. Data quality control

The questionnaire was prepared initially in English and translated to Amharic by fluent speakers of both languages, and it was translated back to English to check its consistency. The pre testing of the questionnaire was conducted among 10% of sample other than selected study participants. The two days training was given by the principal investigator on objective of study tool, relevance of the study, confidentiality of the information, respondent‟s right, informed consent, and data collection procedures.

The principal investigator and supervisors supervised the data collection regularly/daily bases and check for any inconsistency of gathered and received data. The completed data verified for field level quality were further cleaned manually and entered by researcher using Epi-data statistical software version 3.1 which was finally exported for further analysis to SPSS software package of version 20.0. Double entry was done to reduce error during data entry.

4.15. Data Analysis procedures

The final verified data was analyzed on SPSS for windows version 20.0.Frequency and percentage were used for the descriptive part and binary logistic regression model used to identify independent predictors associated with the outcome variable.

Variables that have statistically significant at bivariate logistic regression with p-value<0.2 were entered in to the multiple binary logistic regression model. P-value <0.05 were considered as statistical significant.

4.16. Ethical Consideration

Ethical clearance was obtained from Research Ethics Committee of School of Allied Health sciences, College of Health Sciences; Addis Ababa University (AAU). Moreover, Wolaita Zone Health Department and other administrative organs at various levels were contacted and official permission was obtained. The mothers of the infants enrolled in the study were informed about the nature of the study, its objectives, expected outcomes, and benefits and the risks associated with it. Informed verbal and written consent were obtained from the mothers before commencing interview. Mothers who did not attend formal education were consented by their thumb print. Privacy and confidentiality was maintained throughout the study since individual private records including the names of respondents was coded and accessed only by the researcher.

4.17. Dissemination of results

The result of the research is expected to be disseminated to varies stakeholders including AAU,SNNP Regional Health Bureau, Zonal Health Department, Non-Governmental Organizations and other research institutes for policy enacting, appropriate intervention and to expand the frontier for further researches through written report with or without formal presentations. At last this study finding will be published in national and international journals.

CHAPTER FIVE

5. Result

5.1. Socio-demographic characteristics of the respondents

Three hundred nighty four women were interviewed in the study with a response rate of 100%. The mean age of the respondents was 29.47 years and the standard deviation was 5.02 years. Of the interviewed respondents 155(39.3%) were Orthodox, 210 (53.3%) were protestant, 24(6.1%) were Catholic and 5(1.3 %) were Muslim and all 394 (100%) were married . Results have shown that 159 (40.4%) of the respondents were not read and write, 202(51.3%) had attended primary classes, 23(5.8%) had attended secondary classes and the rests had attended college and above or tertiary classes. Regarding maternal occupational status, the result have revealed that majority of them 343(87.1%) were house wife and had no monthly incomes by their own and the rest 12.9% were house wife and farmer, daily laborer, governmental/NGO, merchants and private business workers. Two hundred twenty three (56.6%) of the husbands were farmer, 75(19.0%) were merchant, 73(18.5)daily laborers and the rest 5.8% were governmental/NGO and private business workers.

According to this study majority of respondents 228(57.9%) families‟ monthly income were less than 500 hundred ETB, 134 (34.0%) families‟ monthly income were 500-1500 ETB and the rest 32 (8.1%) families‟ monthly income were above 1500 ETB.

Table 5.1. Socio-demographic characteristics of the respondents on PNC utilization in Sodo Zuria district SNNP, Ethiopia 2016.

Variables	n=394	Frequency	In percent(%)
Maternal ages distribution	15-19	12	3.0
	20-24	39	9.9
	25-29	137	34.8
	30-34	132	33.5
	35-39	65	16.5
	40-44	9	2.3
Religion	Orthodox	155	39.3
	Protestant	210	53.3
	Catholic	24	6.1
	Muslim	5	1.3
Educational status of mothers	Not write and read	159	40.4
	Primary	202	51.3
	Secondary	23	5.8
	Tertiary	10	2.5
Educational status of husbands	Not read and write	117	29.7
	Primary	231	58.6
	Secondary	41	10.4
	Tertiary or college and above	5	1.3
	Farmer and house wife	13	3.3
	House wife	343	87.1
Occupational status of mothers	Daily laborer	8	2.0
	Governmental/NGO employer	4	1.0
	Merchant	24	6.1
	Private business	2	.5
Occupational status of husbands	Farmer	223	56.6
	daily laborer	73	18.5
	Governmental/ NGO	11	2.8
	Merchant	75	19.0
	Private business	12	3.0
Family size	Two	1	.3
	Three	34	8.6
	Four	94	23.9
	Five and above	265	67.3
Family monthly incomes	<500	228	57.9
	500-1500	134	34.0
	>1500	32	8.1

5.2. Past Obstetrical History of the Respondents

From 394 respondents121 (30.7%) had experienced four and above times of pregnancies, 112 (28.4%) had experienced three times of pregnancies, 81(20.6) had experienced two times of pregnancies and 80(20.3%) one time in their life. Regarding number of total live births 130(33%) respondents had given live birth four and above times,110 (27.9) had given live birth three times, 84(21.3%) had given live birth two times and 70(17.8%) had given live birth one time in their lives. According to this study majority number, 265(67.3%) of respondents had large family size five and above.

Table 5.2. Obstetric characteristics of mothers delivered during the last twelve months in Sodo Zuria District, South Ethiopia 2016.

Variables	Frequency	Percent
Number of pregnancy		
One	81	20.6
Two	80	20.3
Three	112	28.4
Four and above	121	30.7
Number of total live births		
One	70	17.8
Two	84	21.3
Three	110	27.9
Four and above	130	33.0

5.3. PNC information distributions

From 394 respondents 369 (93.7) had heard about PNC utilization and 25 (6.3%) had in no information about PNC. Regarding the source of information, respondents heard information from multiple sources and the majority of them

heard information from Health Extension Workers (HEW) which is about 350 (94.85%). The rests heard information from Woman Development Army (WDA), midwifery/nurses, Public Health Officers (PHO) and other source of information like radio, television, newspaper, relatives.

Table 5.3 Frequency distributions of PNC information dissemination by health care workers in Sodo Zuria district, South Ethiopia 2016.

Variables	Frequency	Percent
Information about PNC	n= 394	
Yes	369	93.7
No	25	6.3
Information distribution by whom?	n= 369	
HEW	350	94.85
WDA	142	38.48
Midwifery or nurse	35	9.49
Public health officer	15	4.07
Other source of information	4	1.08

Percent is Greater than 100 because of multiple answers

5.4. Prevalence of postnatal care utilization

According to this study, women used postnatal care service at least one time within 6 weeks after delivery were 306(77.7%). From these 196(64.1%) took service within 24 hours 8(2.6%) utilized the service in between 2-3 days, 23(7.5%) utilized the services in between 4-7 days and 79(25.8%) utilized the service in between 8 to 42 days.

Table 5.4. Distributions of postnatal care utilization time among mothers delivered last twelve months in Sodo Zuria District, South Ethiopia in 2016.

Variables		Frequency (n=394)	Percent
PNC Attendance within 6 weeks			
	Yes	306	77.7
Initiated time of PNC		n=306	
	Within 24 hrs	196	64.1
	2-3 days	8	2.6
	4-7 days	23	7.5
	8-42days	79	25.8
Number of PNC visit		n=306	
	Once	92	30.1
	Twice	76	24.8
	Three and above	138	45.1

5.5. Reason for utilizing postnatal care

Reason for utilizing the service within six weeks, majority number of respondents for 253(82.7%) utilized the service for baby immunization and family planning the raise different reasons which listed in table below.

Table 5.5. Reasons of respondents for utilization of postnatal care service in Sodo Zuria district, Wolaita Zone, South Ethiopia, 2016.

The reason for attending PNC	n=306	
For maternal illness	6	1.96
For baby illness	11	3.59
For baby immunization	253	82.7
For family planning	253	82.7
For health personnel enforce	69	22.55
For healthiness	53	17.02

*** percent is greater than 100 because of multiple answers*

5.6. Reason for not attending Postnatal care utilization

The reason for not attending postnatal care services the majority number 65 (73.86.1%) raised that because of attending other family issues in the home the minority number of respondents raise the reason for not attending the postnatal care service because they didn‟t stay in the area where they live during the postnatal period.

Table 5.6. Reasons of respondents for not utilizing of postnatal care services in Sodo Zuria district, Wolaita Zone, South Ethiopia, 2016

Variables	**Frequency**	**Percent**
Reason for not attending the PNC	n=88	
Due to performing other family issues	65	73.86
Due to lack of awareness	35	39.77
Due to cost	8	9.09
Didn't stay in the area	3	3.41
due to negligence	8	9.09
Lack of transportation	5	5.68
due long waiting time	64	72.73
Due to lack of helper to care baby	44	50.00

*** percent is greater than 100 because of multiple answers*

5.7. Factors associated with utilization of postnatal care

In this study many factors analyzed by binary logistic regression. Those variables whose p-values are were reanalyzed by multiple logistic regressions in order to confirm association. In this study the maternal age, maternal education, husband educational statuses were statistically significant in binary regressions and place of delivery, decision maker for PNC , mother with one live birth and mode of health delivery system were statistically significant in both binary regression and multiple regression.

According to this study place of delivery in health facility is associated with postnatal care utilization. Those who delivered in health facilities are 17.59 times more likely utilized postnatal care services when compared with those mother who delivered at their home. Regarding decision maker for PNC follow up, those mother who decided by their own and with their husband were 14.078 and 4.738 times likely utilized postnatal compared with those for whom their husband decided to follow postnatal care services respectively. The rests are listed in the following table 5.7

Table 5.7. Bivariate and multivariate analyses for factors associated with postnatal care utilization in Sodo Zuria District Wolaita Zone,South Ethiopia, 2016.

Variables		COR	AOR	P-value
Maternal age	15-19	20.186(0.1- 42.9)	41.555(0.41- 93.13)	0.999
	20-24	47.500(4.390-51.97)	28.713(2.10- 41.3)	0.997
	25-29	5.600(1.403-22.36)	4.639(0.149-14.36)	0.382
	30-34	4.073(1,030-16.107)	1.888(0.068-52.62)	0.708
	35-39	1.875(0.460-7.644)	1.973(0.063-61.47)	0.698
	40-44	1	1	
Maternal	Not read and write	1	1	
education	1-8	4.145(2.426-7.080)	0.336 (.016-7.068)	.483
	9-12	3.725(1.061-13.082)	0.345 (.002-72.083)	.696
	College and above	0.838(.227-3.094)	7.943 (.038-16.773)	.447
Husband	Not read and write	1	1	
education	1-8	5.143(3.065-8.630)	1.042(.054-19.998)	.978
	9-12	34.29(4.560-57.767)	22(0.7- 34.120	.997
	College and above	13(0.00-0.002)	86.425	.999
Mode of health	Bad	1	1	
delivery system	Good	0.043(019-0.096)	6.007(1.531-23.571)	.010*
Decision maker	Husband	1	1	
for PNC	Husband and wife	0.109(0.057-0.208)	4.738(1.179-19.039)	.028*
	Wife alone	0.645(.352-1.18	14.078(2.278-86.98)	.004*
Total live birth	4 and above	1	1	
	1 live birth	5.647(2.27-14.050)	18.112(1.64-20.52)	.018*
	2 live birth	2.250(1.170-4.325)	3.074(.597-15.842)	.179
	3 live birth	2.244(1.235-4.077)	2.634(.538-12.891)	.232
Place of birth	Home	1	1	
	Health facility	24.97(18.9-32.5)	17.59(2.12-45.87)	.008*

* indicates =p<0.05

CHAPTER SIX

6. Discussions

This study tried to assess factors associated with utilization of postnatal care follow up among mothers gave birth in Sodo Zuria district, South Ethiopia . In this study 77.7% of the mothers had utilized postnatal care services. These results are similar with the findings of cross sectional study in Abi- Adi Town of Tigray region in 2012 that showed 78.3% of the mothers utilized PNC service(14). The reason for this consistency may be similarity of design and in contrast, the postnatal care utilization of this study is higher than the research carried out based on EDHS 2011 in which postnatal utilization coverage by region were: Harari (19.3%), Gambela (13.8%), Tigray (13.7%), Dire Dawa (10.1%), Benishangul-Gumuz (9.7%), Amhara (8.4%), Oromiya (7.6%), Afar (6.9%), SNNP (6.4%), and Somali (4.5%)(13), the cross sectional study in Sidama zone (southern Ethiopia) in 2008 (37.2% of utilization)(10), descriptive survey conducted in Kenya at the Central Province General Hospital, Nyeri in which postnatal care coverage is 14.2% (25), a community based cross-sectional study conducted in Jabitena district of Amhara region in 2013 in which postnatal care utilization coverage is 20.2% community based cross-sectional study conducted in Kenya based DHS in which PNC coverage is 47% and (10, 21,35 38). This may be due to time difference between these studies, socioeconomic status, cultural factor and geographical location differences. Other possible explanation for these differences among studies may be governmental focuses increasing from year to year in order to reduce to maternal and neonatal deaths.

According to this study the utilization of the postnatal care service is also higher than cross sectional study conducted in the Western District of Nepal in which postnatal care utilization was 25.1% in 2011 and cross sectional study in India based on Nepal Demographic and Health Survey (NDHS) in 2011 (23,24). The possible explanation to the difference may be due cultural differences, time differences of study socioeconomic status, geographical factors, heterogeneity of study population and political concern of governments. The other possible explanation for the

difference between Ethiopia and other countries could be explained by the unique nature of the country utilizing Health Extension Workers.

Different studies showed that factors affecting utilization of postnatal care services are educational level, occupational status of wives, husbands‟ occupational status, awareness of postnatal care services, attendance of antenatal care service and place of delivery were statistically significant, but in this study, only place of delivery, decision maker for postnatal care and mode of health delivery system were showed statistical significance in the utilization of postnatal care services.

The first statistically significant factor in this study was decision maker for PNC utilization. This finding also agrees with cross sectional study conducted in Tigray region , descriptive study conducted in Kenya and a community based cross sectional study conducted in Amhara regioin (7,21,35). The reason for the similarity may be due similarity in, socioeconomic status, geographical location and similarity government concern. Mother who decided with their husband and mothers who decided about themselves to follow post natal care were 4.74 times [AOR= 4.74, 95% CI: 1.179-19.039] and 14.08 times [AOR=14.08, 95% CI: (2.278-86.980)] more likely to utilize postnatal care follow up as compared with for those their husbands decided about their wives respectively. The possible explanation to this result is when women became highly empowered to decide about themselves developed self-confidences and these self-confidences made them to utilize postnatal care services more likely than other mothers who didn‟t decide about themselves. The other possible reason for the above finding is gender equality which is very important to women to decide about themselves. If gender equality is kept in the community and house hold level, women become more likely to decide everything and make them to utilize postnatal care services more likely. Women's decision making in the household level, social affairs and maternal health care is very important for maternal mortality reduction. Involving women in decision making enhances the prospects of post natal care follow up movements. Women who decide about themselves have great opportunity to generate their own business and that may increase postnatal care utilization.

The second statistically significant finding of this study is the number of live birth with one baby was a significant factor in the utilization of postnatal care services. These finding agrees with the cross sectional study carried out in Ethiopia based on EDHS of 2011(11). The reason for this similarity may be due to large coverage of the EDHS study is rural area compared with urban and also this study only includes the rural part of Sodo Zuria District. This finding is inconsistent with a cross-sectional study conducted in Gondar Zuria District in which mothers with live 1-5 children were not significant (12). The reason for this inconsistency may be cultural and time differences. In my study mother with one live child 18.11 times more likely utilized postnatal care services compared with mother with 4 and above live children [AOR=18.11,95% CI: (1.636-20.519)]. The possible explanation for these postnatal care utilizations are may be mother eagerness and fearing of risks related with problems related with not using services.

The third statistically significant factor in this study is mode of health delivery system of health facilities. The mother who responded mode of health delivery system of health "good" have 6.01 times more likely utilized postnatal care services compared to mothers who responded mode of health delivery "bad" [AOR=6.01, 95% CI:(1.531-23.571)]. The reason for this result health facility services provided for mothers. When the services comprise all components what mother need, it may increase of postnatal care utilization and health care providers voluntariness to help clients who seek care.

The fourth statistically significant factor in this study is place of delivery. This finding is also consistent with community based cross sectional study conducted in India and a cross sectional study conducted in Nepal by (23,30). This shows that place of delivery in health facility is important to attend postnatal care. The reason for this may be due to the given services during delivery time in health facility and dissemination of information by health professionals to attend postnatal care services. Mother who delivered in health facilities were 17.59 times more likely to utilize post natal care follow up as compared to mothers who delivered at home [AOR=17.59, 95% CI: (2.12-45.87)

Strength of the study

The study used simple random sampling technique giving equal chance to the study participants, adequate sample size with 100% of response rate. In addition the study was conducted in community and use of appropriate statistical analysis are considered as strengths of the current study

Limitation of the study

This study assessed the utilization of postnatal care in Sodo Zuria district represented only rural populations. The generalization of this study is only for rural population. In addition, the cross sectional nature of the study has inherent limitations for establishing cause and effect relationships. Since design is quantitative it does not address cultural issues of the respondents.

CHAPTER SEVEN

7. Conclusion and Recommendations

7.1. Conclusion

The coverage of utilization of postnatal care services in Sodo Zuria district 77.7% was and 93.7% of mothers heard about the postnatal care services. From those mothers who utilized postnatal services 64.1% attended it within 24 hours. Therefore, the gap in non-users of postnatal care was lack of decision making about themselves and home delivery.

7.2. Recommendations

Based on the findings of this study the following recommendations are made.

- **For policy makers and political leaders**

  Policy maker and political leaders should emphasize in women empowerment and evaluate and monitor the actions which initiate women to participate in decision making activities..

  Policy maker and political leader should also emphasize in gender equality to empower women in decision making.

- **For Ministry of Health**

  The ministry of health should make health facilities available at near to each kebeles and should make available skilled health personnel in each health institute

- **For Sodo Zuria Health Office**

  Sodo Zuria District health office workers should emphasize community based educations to reduce home delivery which decreases postnatal care services.

  Sodo Zuria district health office should avail ambulances to each health institutes.

  Sodo Zuria district should avail skilled and enough health personnel in each health centers.

- **Health Extension Workers**

  HEW should teach the mothers about the risk of home delivery and related problems with it.

  HEW should visit mothers‟ home after delivery to encourage the PNC services.

- **For Researchers**

  It would be better if qualitative research is done to check the satisfaction of mother postnatal care utilization and mode of health delivery system.

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Annex I: Information Sheet and Consent Form (English and Amharic)

1. **INFORMATION SHEET**

How are you? My name is---------- I represent a study team by a post graduate student in Addis Ababa University who intends to do a research in SNNPR, Sodo Zuria district in Wolaita Zone, supervised by School of Allied Health Sciences /AAU instructors. We are studying Postnatal care utilization and its associated factors in Sodo Zuria district in Wolaita Zone . You are randomly chosen to be interviewed by the research team. The information obtained from you and other respondents is important to see how the counseling is working and if mothers are getting the support that they need. We would appreciate it if you could answer all questions, so we can find out what is working well and what needs to get better. Your truth full answers for all of our questions will be very important to know the factors affecting postnatal care utilization. Participating in this study doesn't' harm you at all. The information you give here by no means will be transferred to any third party. All the information obtained from you will be kept confidential. The interview shall be conducted in private condition. You have the right to refuse participation at any time or not to respond to questions that you are not willing to answer and withdraw from participation at any time. Your participation is completely voluntary but your experiences could be very helpful. It will also not affect the services you might need at the health facility for now and in the future. If you agree to be interviewed, we will go 15-25 minutes for us to complete the questionnaire. If you have any questions about the study you can ask. In case if you have any question you can contact the principal investigator Mr. Tilahun Saol using his mobile phone
+251-9 62-14-97- 08.

Thank you. Next I will read a consent, which assures your interest to participate.

2. **CONSENT FORM**

The researcher explained the aim of the study with clear language that I can decide once I

understand the objective of the study. I decided:

1. Agree to participate [ ] _____signature/thumb print , continue

2. Not agree to participate (stop here); thank you very much!

If the study subject agrees to participate in the study, start the interview. Interviewer signature certifying that informed consent has been given verbally by the respondent.

Data collectors name _____ Signature _____Date __/__/____

NB: No need of enforcing the respondent to be included in the study

Supervisor name_____ signature _____ Date___/___/___

Annex II: English Version Questionnaire

Interview information

Identification No |__|__|

Kebele _____

Name of household head _____

Date of interview |__|__| day |__|__| month |__|__||__|__| year

Time started |__|__| hour |__|__| minutes

Time ended |__|__| hour |__|__| minutes

Result

*

|__|

Interviewer name _____

Supervisor _____

Checked by _____

Entered by 1) _____

2) _____

Result codes

1=completed 3=postponed 5=partly completed 7=other (specify) _____

2=not available 4=refused 6 =incapacitated

Instruction:

✓ There is no right or wrong answers for the questions, but it only tells us your own knowledge and experiences on PNC services

Section 1: Basic demographic information **Instruction: Encircle your choice and fill in the blank space provided**			
S.N$_o$	**Questionnaires**	**Answers codes**	Skips to
101	Would you tell me your age in completed years?	_____	
102	What religion do you belong to?	1=Orthodox 1=Protestant 2= Catholic 3=Muslim 99=other (specify)……	
103	What is your present marital status?	1=Married 2=Never married 3=Separated/divorced 4=Cohabiting 5= If other (specify)--------	
104	Would you tell me how many pregnancies did you have? (it includes abortion)	1= one 2=two 3=three 4=four and above	
105	Would you tell me the number of total live births that you‟ve born?	1= one 2=two	

		3=three 4=four and above	
106	Would you tell me number of peoples in your household?	1= one 2=two 3=three 4=four 5=five and above	
107	Would you tell me your educational status of?	1= not write and read 2=Primary 3=Secondary 4=University/tertiary institution	
108	Would you tell me your occupation?	1= Farmer and house wife 2= House wife 3= Daily laborer 4=Government/nongovernment 5= employer 6= Merchant 7= Private business 8= If other specify	
109	Would you tell me your husband‟s educational status?	1= Not write and read 2= Primary 3= Secondary 4= University/tertiary institution	
110	Would you tell me your husband‟s occupation?	1= Farmer 2= Daily laborer 3=Government/ nongovernment employer 4= Merchant 5= Private business 99= If other specify_____	

111	Would you tell me your family"s monthly income?	-------- ETB	
Section2: Awareness of mothers about postnatal care utilization **Instruction: Encircle your choices**			
201	Have you ever heard any information about PNC?	1.Yes 2.No ⟶	Go to 203
202	If "you heard PNC" who informed you about it? More than one answer is possible	1= HEW 2= WD army 3=Midwifery/Nurse 4= Public health officer 5= Doctor 6= Other (specify)	
203	Do you know the time that PNC service should be started?	1= Yes 2= No ⟶	205
204	If "YES" can you mention correct time the correct time to start PNC?	1= Within 2-3 days 2= 4-6 days 3= 7 to 42 days 4= Other (specify)----------	
205	Do you know the postnatal services that you are supposed to receive after delivery?	1=Yes 2=No ⟶	207
206	If yes list theservices (**Don't read the choices**)	1=Physical examination 2=Immunization of baby 3=Counseling 4=Family planning services 5=Breastfeeding education 6=Physiotherapy 99=Other (specify)……	
207	Did you attend postnatal services within	1=Yes	

	six weeks after last delivery?	2=No ⟶	212
208	If yes when did you start it after last delivery?	1= 1-3 days 2= 4-7 days 3= 8-42 days	
209	How many times did you attend PNC after your last delivery?	1= once 2 = twice 3 =three and above	
210	Would you tell me why did you go for postnatal services? (**More than one could be marked if applicable**)	1= Because I was ill 2=Because baby was ill 3=Because the baby needed it"s immunization 4=Because the midwife had told me I should 5=Because I wanted to start family planning 6=Because I wanted to make sure I am back to normal 7=Other (specify)_____	
211	Would you tell me what types of postnatal services did you receive when you went back to health facility after delivery? (More than one could be marked if applicable)	1=Physical examination 2=Immunization of baby 3=Counseling 4=Family planning services 5=Breastfeeding education 6=Physiotherapy 7=Other (specify)……	

212	If you did not go for services, would you tell me possible reasons why you did not attend these services?. (Answer only if applicable)	1=Attending to other family matters 2=Not aware 3=It is expensive 4=Because of my Beliefs 5=did not stay in the area 6=Did not think it was necessary 7=No money for transport 8=Waiting time is too long 9=Had no one to live the children with 10=Other(specify)…….	
213	Do you have any history of neonatal death?	1= Yes 2= No ⟶	215
214	If yes when did it take place?	1= Within 7 days 2= 8-28 days	
215	Did you have ANC check-ups at a health facility when you were pregnant?	1=Yes 2=No ⟶	220
216	If „yes" where did you get ANC check up	1= Health post 2= Health center 3= Hospital 4=if other specify	
217	How many times did you attend ANC follow up	1= 1 time 2= 2 two times 3= 3 times 4= 4 and above	
218	During ANC visits have you been informed about PNC?	1= Yes 2= No	

219	If you were informed about PNC services who informed you about it? (More than one answer is possible)	1= HEW 2= Midwife/nurse 3= Health office 4= Doctor 5 = if other specify	
220	Where did you give birth?	1= Health facility 2= Home ⟶	224
221	If you gave birth at health facility, would you the mode of delivery?	1=Spontaneous vaginal delivery 2=without episiotomy 3=Spontaneous vaginal delivery with episiotomy 4=Instrumental delivery 5=Cesarean section 6= if other (specify)---------	
222	If you delivered at health facility, would tell me the time you were discharged after delivery?	1=Immediately after birth 2=six hours after birth 3=one day after birth 4=More than 1day 5= if other specify-------	
223	If at health facility, have you been informed about PNC follow up	1=Yes 2=No ⟶	225
224	If you delivered at home, who assisted you during your delivery?	1=TBA 2=Relatives 3=HEW 4=If other specify-----	
225	Have you faced any problem after delivery?	1=Yes 2=No ⟶	301

226	If you have faced problems would you tell me those problems you have been faced? (don't read the choices and more than one answer is possible)	1= excessive bleeding 2=fouls smell vaginal discharge 3= severe headache 4=convulsion 5= if other (specify)---------- ----------	
Section3: Questions on factors affecting to PNC Utilization			
301	Who decides in your family to attend PNC?	1= Husband alone 2= Wife alone 3=Husband and wife	
302	Would you tell me the distance (km/in minutes)from your home to Health facility on foot?	1= < 5 km/ takes <30 minutes 2= 5-15 Km/ takes 30min – an hour 3= >15 km/takes > one hour	
303	Did you get transportation service to go to health facility?	1=yes 2=no ⟶	305
304	If "you get transportation" how much does it cost you to get to Health facility?	---------	
305	Did you have to pay any fee for the postnatal services that you were provided in the health facility?	1=Yes 2=No ⟶	307
306	If "yes" how much does it cost you to get to PNC services?	----------	
307	Since you delivered in healthy facility, are there any problems you have faced that prevented you from going to receive postnatal services?	1=Yes 2=No ⟶	309

308	If you faced problems in health facility, would you tell me those problems you have faced?	1=shouted at me 2=They did not teach me well 3=Examined me roughly 4=Did not come when called 5= if other specify ----------	
309	Think of your own experience of the maternity services when you delivered and afterwards, how would you describe the service?	1=good 2=bad	
310	What do you say about mode of health delivery system of health care workers?	1=good 2=bad	

Thank you for your cooperation. We wish you best of luck to you and your infant!

የመረጃ መስጫ እና ስምምነት ቅጽ (ፎርም)

1. የመረጃመስጫቅጽ

ጤናይስጥልን፤ስሜ----------ይባላል፡፡እኔ በአዲስ አበባ ዩኒቨርስቲ በነርሲንግና ሚድዋይፈሪ ትምህርት ክፍል የማስተርስ ዲግሪ የሚያጠና ተማሪ ከአዲስ አበባ ዩኒቨርስቲ በነርሲንግና ሚድዋይፈሪ ትምህርት ክፍል መምህራን በመታገዝ በደቡብ ክልል፣ወላይታ ዞን ሶዶ ዙሪያ ወረዳ የእናቶች የድህረ ወሊድ ክትትልና አሉታዊ ተፅኖ በሚል ርዕስ ጥናቱን ያካሂዳል፡፡ ጥናታችን ስድስት ሳምንት በፊት በጤና ተቐም እና በቤታቸውም የወለዱ እናቶችን ያካትታል፡፡ እርስዎም በጥናት ቡድን አማካኝነት በዕጣ ለዚህ መጠይቅ ተመርጠዋል:: እርስዎ የሚሰጡን መረጃ ከለሎች መረጃ ምንጮች ጋር ተዳምሮ ፤ የድህረወሊድ አገልግሎት እንዴት እየተሰጠ እንደሆነ እና እናቶች የምፈልጉትን እገዛ ስለምያገኙበት ሁኔታ ለማወቅ ታልሞ የተዘጋጀ ጥናት ነው፡፡ ያሉን ጥያቄዎችን የምመልሱልን ከሆነ ምን በትክክል እየተሰራነዉ፤ምንስ ደግሞ መሰተካከል አለበት የምለዉን ለማወቅ ይረዳናል፡፡ ለጥናቱ መሳካት እርስዎ የምሰጡን ትክክለኛና ቀና መልስ ወሳኝ ሚና አለዉ፡፡ በጥናቱ በመሳተፍ ምንም ጉዳት አይደርስቦትም፡፡ በዚህ ቃለ መጠይቅየሚሰበሰበው መረጃ ለማንም ሦስተኛ ወገን አልፎ የሚሰጥ አይሆንም፡፡ እርስዎ የሚሰጡን ምላሽ ሁሉ በሚስጥር ይያዛል፡ ፡መጠይቁም የግልምቾትን በጠበቀ መልኩ ይካሄዳል፡፡ በዚህ ቃለ መጠይቅ የመሳተፍም ሆነ ያለመሳተፍ ሙሉ መብት አለዎት፤ በማናቸውም ጊዜ ቃለ መጠይቁን ማቋረጥ ከፈለጉ ይችላሉ፡፡ የሚያገኙትንም የጤና አገልግሎት አሁንም ቢሆን ወደፊት አያስተጓጉልም፡፡ ነገር ግን ሁሉንም ጥያቄዎች እንድመልሱልን እናበረታታለን፡፡ በጥያቄዉ ለመሳተፍ ፈቃደኛ ከሆኑ ከ15-25 ደቂቃ ዉስጥ እናጠናቅቃለን፡፡ ግልፅ ያልሆነ ነገር ካለ ልጠይቁን ይችላሉ፡፡ ማንኛዉም ጥያቄ ካሎት የጥናቱ መሪ የሆኑትን አቶ ጥላሁን ሳያል በስሌክ ቁጥር +251-962-14-97-08 ማግኘት ይችላሉ፡፡ አመሰግናለሁ! በመቀጠል የስምምነት ቅጽ አነባለሁ፡ይህም በጥናቱ ለመሳተፍ ያለዎትን ፍላጎትን ያረጋግጣል፡፡

2. የስምምነትቅጽ

ተመራማሪው የጥናቱን ዓላማ በሚገባ ግልጽ በሆነ ቋንቋ አስረድተውኛል፡፡ በዚህም መሠረት የጥናቱን ዓላማ ስለተረዳሁ ለመሳተፍ ዉሳንዬን በሚከተለዉ መንገድ አረጋግጣለሁ፡፡

1. አዎን እሳተፋለሁ፡፡ [ ] _____ ፊርማ/የጣትአሻራ፣ይቀጥሉ

2. አልስማማም/ አልሳተፍም (አመስግነዉ በዚህ ያብቁ) ፡፡ [ ]

ተጠያቂዉ ለመሳተፍ ፈቃደኛ ከሆኑ መጠይቁን ጀምር

የመረጃ ሰብሳቢ ፊርማ ተጠያቅዉ በቃል ስምምነት መስጠቱን ያረጋግጣል፡፡

አስታዉስ፡ ተጠያቅዉ በግድ በጥናቱ እንድሳተፍ አያስገድዱ፡፡

የመረጃ ሰብሳቢ ስም ---------- ፊርማ _____ቀን -----/--/------

ሱፌርቫይዘርስም ----------ፊርማ----------ቀን-------/-----/----

Annex III: Amharic Version Questionnaire

የአባወራ/እማወራ መለያ (ኮድ) |__|__|

የቀበሌ/መንደር ስም _____

የአባወራ/እማወራ ስም _____

መጠጥቁ የተደረገበት ቀን |__|__|ቀን |__|__|ወር |__|__||__|__|ዓ.ም

የተደረገበት ሰአት |__|__| ሰአት |__|__| ደቂቃ

የተጠናቀቀበት ሰአት |__|__| ሰአት|__|__| ደቂቃ

ዉጤት
*
|__|

የጠያቂዉ ስም _____

ተቆጣጣሪዉ _____

የመረመረዉ _____

ያስገባዉ 1) _____

2) _____

*
ዉጤት ኮዶች:

1=የተጠናቀቀ 4=ለመጠየቅ ያለተስማሙ 7=ሌላ(ይገለፅ)

2=ያልተገኙ 5= ከፊል የተጠናቀቀ

3=የተሸጋገረ 6=መጠየቅ የማይችሉ _____

መመሪያ

- ✓ ትክክል ወይም ትክክል ኣይደለም የሚባል መልስ የለም፤ ነገር ግን ምላሽዎ የድኅረወሊድ ክትትልን በተመለከተ ያለዉን ግንዛቤዎንና ልምድዎን እንድናወቅ ይረዳናል፡፡
- ✓ ከቀረቡት አማራጮች መለስዎን ያክብቡ፤ ማብራሪያ በሚጠይቅበት ቦታ በቃላት ግለፁ

ክፍል 1: የማህበራዊና ዲሞግራፊያዊ ሁኔታዎች			
ተ.ቁ	**መጠይቅ**	**የመልስ ኮዶች**	**ይለፍ**
101	የዕድሜዎት በሙሉ ዓመት ስንት እንደሆነ ልነግሩኝ ይችላሉ?		
102	ሀይማኖትዎ ምንድን ነዉ?	1=ኦርቶዶክስ 2=ፕሮተስታንት 3=ካቶሊክ 4= እስላም 5= ሌላከሆነ (ይግለፁ)……	
103	የጋብቻ ሁኔታ ልነግሩኝ ይችላሉ?	1=ያገባች 2=ያላገባች 3=የተፈታች 4=አብራ የሚትኖር 5= ሌላከሆነ (ይግለፁ)……	
104	ስንት ጊዜ ዐርግዘዋል? (ዉርጃ ካለም ያጠቃልላል)	1= አንድ ጊዜ ያረዘገች 2=ሁለት ጊዜ ያረገዘች 3=ሶስት ጊዜ ያረገዘች 4=አራት እና ከዛ በላይ	
105	በሕይወት የተወለዱ ልጆች ቁጥር ስንት ናቸዉ?	1= አንድ 2=ሁለት 3=ሶስት 4=አራት እና ከዛበላይ	
106	በርስዎ ቤት ዉስጥ ያሉት ሰዎች ብዛት ስንት ናቸዉ?	1 =ሁለት 2=ሶስት	

		3=አራት 4= አምስት እና ከዛበላይ	
107	የትምህርትዎ ደረጃ ስንተኛ ነዎት?	1= ማንበብና መጻፍ የማይችሉ 2= ማንበብና መጻፍ የሚችሉ 3=አንደኛ ደረጃ(1-8) 4=ሁለተኛ ደረጃ(9-12) 5=ኮሌጅ/ዩኒቨርሲቲ	
108	የእርስዎ የሥራ ዓይነት ምንድን ነዉ?	1= ገበሬ እና የቤትእመቤት 2= የቤት እመቤት 3= የቀን ሰራተኛ 4=የመንግስት/ መንግስታዊ ባልሆነ ድርጅት የሚሠሩ 5=ቀጥሮ የሚያሠሩ 6= ነጋዴ 7=በግል ሥራ የሚተዳደሩ 8= ሌላከሆነ ይግለፀ----------	
109	የባለቤትዎ የትምህርት ደረጃ ስንተኛ ነዉ?	1= ማንበብና መጻፍ የማይችሉ 2= ማንበብና መጻፍ የሚችሉ 3=አንደ ኛደረጃ (1-8) 4=ሁለተኛ ደረጃ(9-12) 5=ኮሌጅ/ዩኒቨርሲቲ	
110	የባለቤትዎ ሥራ ምንድን ነዉ?	1= ገበሬ እና የቤት እመቤት 2= የቤት እመቤት 3= የቀን ሰራተኛ 4=የመንግስት/ መንግስታዊ ባልሆነ ድርጅት የሚሠሩ 5=ቀጥሮ የሚያሠሩ 6= ነጋዴ 7=በግል ሥራ የሚተዳደሩ 8= ሌላ ከሆነ ይግለፀ----------	
111	የቤተሰብዎ የወር ገቢ መጠን ስንት ነዉ?	------ብር	
ክፍል 2: ድኅረወሊድ ክትትል የግንዛቤ ጥያቄዎች			
201	ስለ የሚባል ነገር ሰምተዉ ያዉቃሉ?	1=አዎን 2=አላዉቅም ⟶	203

202	ስለ ድህረወሊድ ስምተዉ ከሆነ ከየት ነበር የሰሙት? ከአንድ መልስ በላይ ይቻላል	1= ከጤና ኤክስቴንሽን ሠራተኛ 2= ከሰቶች ልማታዊ ቡዲን መሪ 3=ከሚድዋይፈሪ/ነርስ 4= ከጤና መኮንን 5= ከዶክተር 6= ሌላ ከሆነ ይግለፁ ----------	
203	የድኅረወሊድ ክትትል የሚጀመርበት ትክክለኛዉን ጊዜ ያዉቃሉ?	1= አዎን 2=አላዉቅም ⟶	205
204	መልስዎ አዎን ከሆነ የድኅረወሊድ ክትትል የሚጀመርበት ትትክክለኛዉ ጊዜ መቼ ነዉ?	1 =ከወሊድ በኋላከ 24 ሰዓታት ዉስጥ 2=2-3 ባሉት ቀናት ዉስጥ 3=ከወሊድ በኋላ ከ 6-7 4= 8 - 42 ባሉት ቀናት ዉስጥ	
205	በድኅረወሊድ ክትትል ወቅት አንዲት እናት ማግኘት ያለባት እንክብካቤ/ አገልግሎት ምን እንደሆነ ያዉቃሉ?	1= አዎን 2=አላዉቅም ⟶	207
206	መልስዎ አዎን ከሆነ ምን ዓይነት አገልግሎት እንደሆነ ይዘርዝሩ (ምርጫዉ ሊይነበብም)	1=አጠቃላይ የሰዉነት ምርመራ አገልግሎት /Physicalexamination 2=የህፃን ክትባት አገልግሎት 3=የምክር አገልግሎት 4=የቤተሰብ ምጣኔ አገልግሎት 5=የጡት ማጥባት ትምህርት 6=የፊዝዮቴራፒ/ የሰዉነት ማሸት አገልግሎት 7=ሌላ ከሆነ ይግለፁ……	
207	የመጨረሻዉን ልጅ ከወለዱ በኋላ የድኅረወሊድ ክትትል አድርገዋል?	1= አዎን 2=አላዉቅም ⟶	212
208	መልስዎ አዎን ከሆነ የድኅረወሊድ ክትትል መቼ ነበረ የጀመሩት?	1=ከወሊድ በኋላ በ24 ሰዓታት ዉስጥ 2= ከወሊድ በኋላ2-3 ባሉት ቀናት ዉስጥ 3= ከወሊድ በኋላ ከ4-7 ባሉት ቀናት ዉስጥ 4= ከወሊድ በኋላ ከ8-42 ባሉት ቀናት ዉስጥ	
209	ስንት ጊዜ ተከታትለዋል?	1=አንድ ጊዜ 2 =ሁለት ጊዜ	

		3 =ሶስት እና ከዛ በላይ	
210	የድኅረወሊድ ክትትል ለምን አደረጉ? ከአንድ በላይ ምርጫ መምረጥ ይቻላል	1=እኔን ስላመመኝ 2=ህፃኑ ስለታመመ 3=የህፃኑን ለማስከተብ 4=የጤናባ ለሙያ መከታተል አለብሽ ስላሉኝ 5=የቤተሰብ ምጣኔ አገልግሎት ስላስፈለገኝ 6=ክትትል ካደረግኩኝ ወደ ቀድሞ ጤንነት እንደምመለስ እርግጠኛ ስለሆንኩ 7=ሌላ ከሆነይገለፅ _____	
211	ከወሊድ በኋላ ወደ ጤና ተቋም ሲሄዱ ምን ዓይነት የድኅረወሊድ አገልግሎት ያገኛሉ? (ከአንድ በላይ ምርጫ መምረጥ ይቻላል)	1=አጠቃላይ የሰዉነት ምርመራ አገልግሎት/Physical examination 2=የህፃን ክትባት አገልግሎት 3=የምክር አገልግሎት 4=የቤተሰብ ምጣኔ አገልግሎት 5=የጡት ማጥባት ትምህርት 6=የፊዝዮቴራፒ/ የሰዉነት ማሸት አገልግሎት 8 =ሌላ ከሆነይግለፁ ……	
212	ድኅረወሊድ ክትትል ያላደረጉበት ምክንያት ምን እንደሆነ ይዘርዝሩ	1=የቤተሰብን ጉዳይ በቤት ዉስጥ እየሰራሁ 2=ግንዛቤዉ ስላልነበረኝ 3=ዋጋዉ ዉድ ስለሆነ 4=ዕምነቴ ስለሚከለክል 5=በወቅቱ በአካባቢዉ ስላልነበርኩኝ 6=አስፈላጊ ነዉ ብዬ ስለማላምን 7=የመጓጓዣ ገንዘብ ስላልነበረኝ 8=ብዙ ሰዓት ስለሚያስጠብቅ 9=ልጀን የሚጠብቅልኝ ሰዉ ባለመኖሩ 10=ሌላ ከሆነ ይገለፅ…….	
213	ከዚህ በፊት የጨቅላህፃን ሞት አጋጥመዋል?	1= አዎን 2= አላጋጠመኝም ⟶	215
214	መልስዎ አዎን ከሆነ ከወሊድ በኋላ በስንተኛዉ ቀን ነዉ?	1= ከወሊድ በኋላ በሰባት ቀናት ዉስጥ 2=ከወሊድበኋላ 8-28 ባሉትቀናትዉስጥ	
215	በዕርግዝና ወቅት የቅድመ ወሊድ ክትትል በጤና ተቋም	1=አዎን	

	አድርገዋል?	2=አልተከታተልኩም ⟶	220
216	መልስዎ አዎን ከሆነ የትነበር የቅድመ ወሊድ ክትትል ያደረጉት	1= በጤና ኬላ 2= በጤና አጠባበቅ ጣቢያ 3= ሆስፒታል 4= ሌላ ከሆነ ይገለፁ----------	
217	የቅድመ ወሊድ ክትትል ስንት ጊዜ ነበር ያደረጉት?	1= አንድ ጊዜ 2= ሁለት ጊዜ 3= ሶስት ጊዜ 4= አራት እና ከዛ በላይ	
218	በቅድመ ወሊድ ክትትል ጊዜ የድኅረሊድ ክትትል ነገር ተነግሮታል?	1= አዎን 2= አልተነገረኝም	220
219	መልስዎ አዎን ስለኅረወሊድ ክትትል ማን ነግርዎት?	1= ጤና ኤክስቴንሽን ሠራተኛ 2= ከሚድዋይፊሪ/ነርስ 3= ከጤና መኮንን 4= ከዶክተር 5 ከሌላ ከሆነ ይግለፁ ----------	
220	የመጨረሻዉን ልጅ የትነበር የወለዱት?	1 በጤና ተቋም 2= ቤት ⟶	224
221	የወለዱት በጤና ተቋም ከሆነ በምን መንገድ ነዉ የወለዱት?	1=በተለመደ መንገድ (በማህፀንበር) 2=በተለመደ መንገድበ ትንሹ በመቀስ ተቆርጦ (እፒዝዮቶሚ) 3=በተለመደ መንገድ በመሳሪያ እገዛ (እንስትሩሜንታል) 4=መላዉ ሰዉነት ተደንዝዞ ማህፀን ተከፍቶ (በስ/ኤስ) 5=ሌላከሆነ ----------	
222	ከወለዱ በኋላ ምን ያህል ጊዜ ቆይተዉ ወጡ ?	1=ወዲያዉ እንደተገላገልኩ 2=ስድሰት ሰዓት ያህል ቆይቼ 3=አንድ ቀን ቆይቼ 4=ከአንድ ቀን በላይ ቆይቼ	
223	ከወለዱ በኋላ ስለድኅረወሊድ ክትትል አስፈላጊነት ተነግርዎታል?	1=አዎን 2=አልተነገረኝም ⟶	225

224	የመጨረሻዉን ልጅ የተገላገሉት በቤትዎ ከሆነ በማን እርዳታ ነዉ የተገላገሉት?	1=በልምድአ ዋላጅ 2=በዘመድ 3=በጤና ኤክስቴንሽን ባለሙያ 4=ሌላ ከሆነ ይገለፅ----------	
225	የመጨረሻ ልጅዎን ከወለዱ በኋላ ያጋጠምዎት ችግር አለ?	1= አዎን 2=የለም →	301
226	መልስዎ አዎን ከሆነ ይዘርዝሩ (ምርጫዉ አይነበብም)	1=ከፍተኛ የደም መፍሰስ ችግር 2=መጥፎ ጠረን ያለዉ ፈሳሽ በማህፀን በር መፍሰስ 3=ከፍተኛ ራስ ምታት 4=ራስን መሳት/ኮነቫልሽን 5= ሌላ ከሆነ ይገለፅ ----------	
ክፍል 3:ድህረወሊድ ክትትል የሚከለክሉ ምክኒያቶችን የሚመለከት ጥያቄዎች			
301	በቤተሰብዎየድኅረወሊድ ክትትል እንዲያደርጉ የሚወስነዉ ማነዉ?	1= አባወራ ብቻ 2= እማወራብቻ 3=አባወራእናእማወራ	
302	የጤና ተቋም ያለበት ቦታ ከእርስዎ ቤት ምን ያህል ይርቃል በኪ.ሜ ወይንም ምን ያህል ደቂቃ ይፈጃል?	1= ከ5 ኪ.ሜ በታች ከ30 ደቂቃ በታች 2=ከ5-15ኪ.ሜ/ከ30 አስከ አንድ ሰዓት 3=ከ15 ኪ.ሜበላይ / ከአንድ ሰዓት በላይ	
303	ወደ ጤና ተቀቋም ለመሄድ የትራነስፖርት አገልግሎት ያገኛሉ?	1=አዎን 2=አላገኝም →	305
304	መልስዎ አዎን እስከ ጤና ተቋም ስንት ብር ያስከፍላል?	--------ብር	
305	በጤና ተቋም የሚሰጠዉን የድኅረወሊድ አገልግሎት ለማግኘት የሚያስከፍለዉ ገንዘብ አለ ?	1=አዎን 2= አያስከፍልም →	307
306	መልስዎ አዎን ከሆነ ምን ያህል ብር ነዉ?	--------ብር	
307	በጤና ተቋም ከወለዱ በኋላ የገጠሞት ችግር የድኅረወሊድ ክትትል እንዳያደረጉ ከልከለወታል ?	1= አዎን 2=አልከለከለኝም →	309
308	ችግር ደስዎት ከሆነ ምን ዓይነት ችግር ነበር የገጠሞት ይዘርዝሩ ? (ምርጫዉ አይነበብ)	1=አስፈራሩኝ 2=በትክክል አያስተምሩም	

		3=በትክክል አይመረምሩም 4=ስጠሩ ቶሎ አይመጡም 5= ሌላ ከሆነ ይገለፅ …….. ----------	
309	በርስዎ ልምድ በተመለከቱት ሁኔታ ለእናቶች የሚሰጠዉን የወሊድ እና የድኅረሊድ አገልግሎት አሰጣጥ እንዴት ይገልፃሉ?	1=ጥሩ 2=መጥፎ	
310	አጠቃላይ ስለጤና ባለሙያዎች ስለ አልግሎት አሰጣጥ ምን ይላሉ?	1=ጥሩ 2=መጥፎ	

ቃለ-መጠየቁን በመስጠት ስለተባበሩኝ እጅግአመሰግናለሁ፤ ለእርስዎ እና ለልጅዎት መልካሙን ሁሉ እንመኛለን፡፡

Declaration

I, the undersigned, declare that this thesis is my original work, has not been presented for a degree in this or another university and that all sources of materials used for this thesis have been fully acknowledged.

Name of Investigators: Tilahun Saol

Signature: _____

Date: _____

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

Name: Zeleke argaw (RN, MSN)

Signature: _____

Date: _____

DECLARATION SHEET

I, Tilahun Saol hereby declare that to the best of my knowledge this thesis is my own work; it has not been presented to any institution either partially or in total for any academic award or for publication. The works herein are original, where the works of others are quoted and appropriate reference has been given.

I hereby presented this thesis for partial fulfillment of degree of Master of Science in Maternity and Reproductive health nursing of Addis Ababa University.

Investigator:

Name: Tilahun Saol (BSc)

Signature _____ Date 13/06/2016

This thesis has been submitted for the approval by the following supervisor

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Name : Mr. Zeleke Argaw (MSC, BSC, RN)

Signature _____ Date June 2016

Internal Examiner:

Name : Mr. Tigistu Gebreyohannis (MSc, BSc, RN)

Signature _____ Date 13/06/2016

	Addis Ababa University College of Health Sciences Institutional Review Board Study Assessment Form	SOP # AAU MF 008 Version 2.0 Effective date: 1Feb 2009 Page 13 of 13

ANNEX 2
Form AAUMF 02-008

Assessment Report & Decision

Review Date (D/M/Y):25/01/2016 Protocol number:078/HMRE

Protocol Title : postnatal care utilization and its associated factor in sodo zuria district, wolayta zone, SNNPR,2016		
Principal Investigator:	**Tilahun Saol**	
Institute:	AAU-CHS-Department of Nursing & Midwifery	
Elements Reviewed (AAUMF 01-008)	☐ **Attached**	☐ Not attached
Review of Revised Application ☐ Yes ☐ No	Date of Previous review:	
DECISION :	☑ **Approved** ☐ Approved with Recommendation ☐ Resubmission ☐ Disapproved	
Comment:	✓ **Add the national data of postnatal care on your background** ✓ **add exclusion and inclusion criteria** ✓ **revised the sampling procedure**	
Signature :		Date: 03/02/2016

ADDIS ABABA UNIVERSITY
Centralized School of Nursing
FACULTY OF MEDICINE

SNNPR State Soddo Zurias Woreda Health office
በደ/ብ/ብ/ሕ/ክ/መ በወላይታ ዞን የሶዶ ዙሪያ/ ጤ/ፖ/ጽ/ቤት

ቁጥር ስዙጤ/2393/21-17
ቀን 26/7/08

ለ 7ቱ ጤ/ኢ/ጣቢያ

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ጉዳዩ:- ትብብር እንዲደረግ ስለመጠየቅ ይሆናል።

ከላይ በርዕሱ ለመግለጽ እንደተሞከረው በኢ.ለ ዩኒቨርስቲ ጤና ሳይንስ ኮሌጅ የሁለተኛ ዓመት ድህረ ምረቃ ተማሪ የሆኑት አቶ ጥላሁን ሳአለ Utilization of postinatal care and association factor በሚል ርዕስ ላይ ጥናትና ምርመር ለማድረግ ትብብር እንዲደረግ ከወላይታ ዞን ጤና መምሪያ በቀኖር ወኮጤ/7403/224 በቀን 5/7/08 ዓ.ም በተጻፈ ደብዳቤ የገለጹልን ስለሆነ ለላሙያው ትብብር እንድታደርጉ እናሳስባለን።

ኤች አይ ቪ ኤድስን በጋራ እንከላከል

ዮሐንስ ባዴ
JOHANNES BADIE

ግልባጭ

- ለአቶ ጥላሁን ሳአለ

ባሉበት ፣

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