ADDIS ABABA UNIVERSITY

COLLEGE OF HEALTH SCIENCES

ALLIED SCHOOL OF HEALTH

DEPARTMENT OF NURSING AND MIDWIFERY

ASSESSMENT OF FACTORS AFFECTING POSTNATAL SERVICES UTILIZATION AMONG REPRODUCTIVE AGE MOTHERS IN FUNETETESELAM TOWN, JABITEHNAN WOREDA, WEST GOJJAM, AMHARA REGIONAL STATE, NORTHWEST ETHIOPIA, 2013: COMMUNITY BASED CROSS-SECTIONAL STUDY

BY

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A THESIS SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES OF ADDIS ABABA UNIVERSITY IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTERS IN MATERNAL AND REPRODUCTIVE HEALTH NURSING

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Examiner

DECLARATION

I, the under signed hereby, declare that this thesis is my original work, and has not been presented for a degree in any other University and that all sources of material used for this thesis and all people and institutions that gave support for this thesis have been duly acknowledged:

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Place: Addis Ababa

Date of Submission: _____

Confirmed by:_____

This Thesis work has been submitted with my approval as University advisor

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Acronyms

ANC-Antenatal care

AOR-Adjusted odd ratio

CHA: Community Health Agent

COR- Crude Odd ratio

DM-Diabetes Mellitus

EPI-Expanded program on immunization

EDHS- Ethiopian Demographic Health survey

FP-family planning

HEWs-Health Extension workers

IMR-Infant mortality ratio

MCH-Mother & Child Health

MDGs-Millennium Development Goals

MDG5- Millennium Development Goal five

MMR-Maternal Mortality Ratio

MMRate-Maternal mortality rate

MaNHEP-Maternal and New born Health in Ethiopia partnership

RR-Relative Risk

PIH-Pregnancy Induce Hypertension

PAP- Papanicolaou

PV-P-value

PM- proportion of maternal deaths among deaths of women of reproductive

PNC-Postnatal care

TBA: Traditional Birth Attendance

UDHS-Ugandan Demographic Health Survey

UNFPA -United Nations Fund for Population Activities

UNICEF -United Nations Children Endowment Fund

USAID -United States Agency for International Development

WHO-World Health Organization

Abstract

Background: Due to low maternal healthcare utilization, many numbers of women die each year within the first hours, days and weeks after childbirth. To avert this, one of the eight Millennium Development Goals called improving maternal health is widely applied through out the world especially in developing countries which have low coverage of maternal services due to several factors. Therefore, the factors at different levels affecting the use of these services need to be clearly understood by assessing factors which affect the utilization of PNC services.

Methods: A community based cross sectional study design method was used in Funeteselam town from November to May 2013 by using systematic sampling techniques. Data was first cleaned, edited, coded and entered into computer via epi Info version-3.5.1 and it was analyzed using SPSS version -16, and logistic regression used to assess the association of variables.

Result: The woman's own educational status, marietal status, occupation status, obstetric history, plan to utilize PNC services, long waiting time and decision making problem were significantly associated with the utilization of PNC. As a result of such factors especially lack of awareness, and self decision, proportion of women who had received PNC after delivery was (20.2%).

Conclusion and recommendations: the findings of this study showed that postnatal care services utilization is low in the study area due to no/little knowledge, being healthy, being busy, long waiting time, far from house, decision making dynamics, and with out reason. This calls service providers, administrative organs, and health-policy makers to design short and long term strategies for awareness-raising programmes and educating the community about the benefit of PNC services for both mothers and infants at grassroots level.

Key words: Postnatal care services, factors affecting PNC services utilization

1. Introduction

1.1 Background information

The postnatal period (or called postpartum) is defined by the WHO as the period beginning one hour after the delivery of the placenta and continuing until six weeks after the birth of an infant [1]. It is a time of considerable transition in a woman's life. In this period, organs adjustment has been took place related to the mother's level of preparation for the changes, to the availability and adequacy of support system to the mother's perception, her confidence to deal with the changes, and to her expectation of the maternal role as well as the care provided in the period [2].

World health organization contends that the immediate cause of maternal deaths is the absence, inadequacy or underutilization of the healthcare system [1]. Women should not die in childbirth because the vast majority of maternal deaths can be prevented if women had visited maternal health services during pregnancy, childbirth and the first month after delivery [3]. Thus, PNC is important for both the mother and the 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 child [4].

The services provided in postnatal period include health education on care of the women, the baby and family, blood pressure checks to diagnose or exclude any residual PIH, papanicolaou (PAP) smear to screen for cancer of the cervix, and also important integrated physical examination of the mother which includes pelvic examination to check inovulation of uterus, breast examination, family planning (FP) education is given and urinalysis is performed to exclude PIH and DM. A baby receives a full physical examination and is weighed to determine if

he/she is growing well. Breast feeding is checked on and its advantage reinforced. Any problems with the mother or the baby are addressed and referrals are made as necessary. In addition to the above services the women and baby get vaccination services during postnatal visit [5].

Despite the benefits of PNC, most newborns and mothers do not receive postnatal care services from a skilled health care provider during the critical first few days after delivery. The large gap in PNC coverage is evident in a recent analysis of Demographic and Health Surveys in 23 African countries. Approximately one-third of women in sub-Saharan Africa give birth in health facilities, and no more than 13 % receive PNC visit within two days of delivery. The list is topped by Ethiopia, with 90%, followed by Bangladesh (73%), Nepal (72 %), and Rwanda (71%). On average, in the 30 countries examined, nearly 40 % of women with live birth in the five years preceding the survey did not receive postpartum care checkups [6].

Due to low maternal healthcare utilization, globally, at least 585, 000 women die each year by complications of pregnancy and child birth. More than 70% of all maternal deaths are due to five major complications: hemorrhage, infection, unsafe abortion, hypertensive disorders of pregnancy, and obstructed labor. The majority of maternal deaths (61%) occur in the postpartum period, and more than half of these take place within a day of delivery [7].

The first hours, days and weeks after childbirth are a dangerous time for both mother and newborn infant. The African's average maternal mortality ratio (MMR) was 590 deaths per 100,000 live births in 2008. This means that, in 2008, a woman in Africa died as a result of pregnancy or childbirth every 2.5 minutes – 24 an hour, 576 a day, and 210,223 a year [8].

Almost 90% of the maternal deaths occur in Sub-Saharan Africa and Asia, making maternal mortality the health statistic with the largest discrepancy between developed and developing countries [9]. Even if Millennium Development Goals five was designed and applied [10], Ethiopian maternal mortality was 937/100,000 in 2000[14] and 673/100,000 in 2010 [11]. Later in 2011 the maternal mortality increased to 676[12] even if more than 34,000 HEWs were trained and deployed throughout the country [13].

Every year, about 3.7 million babies die in the first four weeks of life who are born in developing countries and most die at home. Three-quarters of all neonatal deaths occur during the first week of life, 25–45% in the first 24 hours. Seventy two percent (72%) of all babies born outside the hospital do not receive any postnatal care [1]. In Ethiopia, Infant mortality declined by 39 percent over the 15-year period between the 2000 EDHSand the 2011 EDHS, from 97 deaths per 1,000 live births to 59 deaths per 1,000 live births. [12, 14].

1.2 Statement of the problem

World health organization estimated that if routine PNC and curative care in the postnatal period reached 90% of babies and their mothers, 10 to 27% of newborn deaths could be averted. In other words, high PNC coverage could save up to 310,000 newborn lives a year in Africa [15].

Utilization of maternal postnatal care services in developing countries is affected by a multitude of factors such as demographic characteristics, awareness , obstetric history, decision making dynamics, & socio cultural factors [10] and also delay of seeking health care services can be due to failure to recognize sign of complication, failure to perceive the severity of illness, ignorance about the existing services, cost of transport and health care, previous negative experiences with the health care system and transportation difficulties[5]. These factors increase the mortality & morbidity of mothers & infants in the postpartum period especially with in one day of delivery as it is indicated by 18 million women in Africa currently do not give birth in a health facility poses challenges for planning and implementing PNC for women and their newborns [15].

Specifically; the utilization of this service is very low even for women who have access to the service in Ethiopia which is one of the six countries that contribute about 50% of the maternal deaths; the others being India, Nigeria, Pakistan, Afghanistan and Democratic Republic of Congo [16] even if the WHO designed the strategies like mother and baby go to facility for PNC, skilled provider visits the home to provide PNC for mother and baby, community Health Worker visits home to see mother and baby, and Combination: Facility birth and first PNC visit in the facility, then home visit within two to three days, with subsequent PNC visit at the facility [15].

As described by EDHS 2011 report, the great majority of women (92 %) with a live birth in the preceding five years did not receive a postnatal checkup. Among women who received PNC checkup, 4 % were examined within 4 hours of delivery, 2 % within 4-23 hours, 1 % within 1-2 days, and 2 % within 3-41 days of delivery. In total, only 7 % of women received PNC within two days due to different barriers [17].

Although influencing factors and coverage of PNC utilization have been stated by few studies in other areas of Ethiopia, the factors associated with low utilization of PNC in West Gojjam Zone particularly in Jabitehnan woreda at Funeteselam town were not well investigated before. Therefore, the purpose of the study was identification of factors that influence the utilization of postnatal care in this particular setting.

1.3. Significant of the study

The same as different part of Ethiopia, there are significant number of maternal and newborn problems for the utilization of PNC services in Funeteselam town. Therefore, the findings of this study enable to design strategies for educating the reproductive age group mothers to follow the postnatal care and also provide baseline data for health policy makers, health planners and different researchers to carry out further large scale studies in the area of postnatal services utilization. In addition to this, the recommendations of pertinent findings of the study will help the healthcare providers to allocate postnatal care services according to identified gaps.

2. Literature review

2.1 Coverage of post natal care

The study conducted in Palestine (West Bank) in 2006 describes only 36.6% of women obtained postnatal care due to women did not feel sick (85%), followed by not having been told by their doctor to come back for postnatal care (15.5%). [18]. Similar study which was conducted in India in 2012 shows only 44%)of the mothers interviewed in the survey received any PNC check-up within 48 hours of giving birth [19].

Farther more, the study conducted in Nigeria in six districts zones result with 13.7%, 12.8%, 5.0%, 6.6 %, 27.3%, & 28.7% of postnatal care utilization coverage in each districts [20] and also the study in Democratic Republic Congo indicates 34.6% of the women had attended PNC consultations in the 42 days following delivery specifically time of start of visits in days following delivery are<7days (34.8%), 8-14days (23.6%), 15-28 days (9.7%), and 29-42 days (31.9%). Among the women who had not made postnatal consultations, 91% had missed them for no reason & also the other reasons are busyness (3.7%), lack of financial means (3.2%), distance (1.3%), and illness (0.8%) [21].

The study conducted in Malawi indicates factors that hinder PNC at one week and six weeks are the following: lack of advice from health workers specifically six weeks PNC (29.2%), sickness in the family (10.4%) – either husband or child was admitted in hospital and no time to go for PNC (2.6%). Some 51% of the participants did not attend PNC [22].

In Ethiopia use of postpartum care with a skilled care provider for women outside of professional birthing care remains very limited – 5.5% during 2001- 2005, 5% within the first 48 hours after

birth [23], & also overall, the extent of maternal health care seeking behaviors in Ethiopia is extremely low (antenatal care – 27.7 %, delivery care – 5.3 percent and postnatal care 5.8% [24].

The study which was conducted by Mekonnen in Ethiopia resulted with more striking is the fact that less than 3% of women who delivered outside a health facility received postnatal care nationally but in Addis Ababa 19 % received postnatal care. 10 % of women from the other urban areas received postnatal care. Utilization of post natal care services is lowest in rural areas (2%) [25]. The study conducted in 2009 at rural area of Tigray indicates only 5.30% of women took PNC [26] but MaNHEP base line report part I in 2011 indicated that the coverage of postnatal care by HEWs in Amhara region was 20% [27].

2.2. Factors affecting utilization of postnatal care

2. 2.1. Demographic factors

Study which was conducted in Nigeria in 2009 indicates the relationship with age and postnatal care utilization does not appear to be linear as the data show that the women most likely use postnatal care are those aged 25 - 34 years (49.4%) but age less than 25 & greater than 34 women less likely use post natal care[28]. Similarly the study conducted Democratic Republic of Congo shows no direct relation between age at birth & postnatal services utilization as indicated by the result of 12.3%,6.8%& 8% <20,20-34&>-35 years of age respectively [21].Similar result was obtained in Nepal in 2008 which indicates the postnatal care prevalence was not different among different age groups that is11%,51% &39 at age of <20,20-24 & >-25 years of age respectively but age at the time of pregnancy has direct relation to postnatal services utilization which is evidenced by at age <-18 was 13% but age 19+ was 38% women's utilization of the

available cares([29]) but he study conducted in India in 2008 indicated that women delivering at younger age were more likely to use postnatal care[[30]].

Demographic health survey result in developing countries shows in all developing countries except Madagascar and Zimbabwe, over 90 percent of women who gave birth in a health facility received postnatal care within two days of delivery, and many of them (63. 97%) reported having the first checkup within 24 hours after delivery. In contrast, women who delivered in non-institutional settings are much less likely to report receiving postnatal care within 41 days of delivery [[31]]. Study conducted in Nepal showed 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 [[29]].

The qualitative study carried out in Northern Ethiopia in 2009 results with Women made decisions in a pragmatic way, trying to make the best of the situation and the resources that were accessible to them. They recognized that both home and institutional care had beneficial aspects and limitations [[32]].

Studies show maternal health education is consistently and strongly associated with all types of health behavior and therefore, the use of maternal health care services to be higher among more educated mothers [[33]].

The study which was conducted in Uganda in 2004 showed that there is clear association between educational status and postnatal services utilization that is 58% of educated mothers

attended postnatal services compared to only 2% of those who were uneducated and attended [34]. Similar result was obtained in Uttarakhand, India in which the utilization of postnatal care services substantially increases with the increase of the educational level of women [35].

The research which is carried in Ethiopia indicates 72 %of women with at least secondary education received postnatal care from a health professional, compared with 45%of women with primary education and 21 percent with no education [25].

Different studies have different indications regarding to the relation between religion & postnatal care. The study conducted in India indicates postnatal care was utilized more by women from other religious groups (42%), followed by Hindu (35%) and Muslim (30%) women [36] but the study conducted in Ethiopia indicates the influence of religion on utilization of postnatal care services is not statistically significant [24].

The study conducted in India in 2012 indicates that the use of PNC was particularly unequal with the rich utilizing these services three times more compared with the poor. The rich-poor ratio in case of babies receiving two or more check-ups within the first 10 days after birth, however, was only 1.8. The rich were much more likely than the poor to get their babies seen by a health worker within 24 hours of birth [19]. Women's perceptions of the cost of delivery care services, including the cost of going to health facility and staying there, contributed to their decisions to seek delivery care at facility as described by qualitative research in Uttar Pradesh, India at 20[37]. Ethiopian Society of Population Studies in 2008 indicates a significant difference for receiving postnatal services in relation to women's wealth index. The richest women were about 2.66 times

more likely to attend postnatal care than women in the middle category and 5.5 times than women in the poorest wealth category. In the same vein, a woman from the highest wealth index is 1.2 times more likely to seek postnatal care than a woman in the lowest wealth index. The poorer and poorest women were about 31% and 52% less likely to receive PNC services [24].

The study performed in Ethiopia by Mekonnen indicates married women are more likely to receive postnatal care than unmarried women [25].

2.2.2. Obstetric history

The study conducted in India showed that the utilization of full PNC (37%) was higher among those women with first order child birth than with those who had had previous experiences of childbirth [37] but the study conducted in Democratic Republic of Congo showed that parity was not associated use of PNC [24]. Another study conducted in 2003 shows high parity women are the least likely to seek maternity care services due to greater confidence and cumulative experience [38].

The study which was conducted in Palestine (West Bank & Gaza) indicates relatively high use of postnatal care among women who had experienced problems during their delivery (60%), or had a cesarean section or instrumental vaginal delivery (75%) [20].

2.2.3. Awareness of women

Several studies have investigated mothers' awareness about postnatal services with varying results. For instance, Soltani conducted a study to evaluate mothers' knowledge about preventive care in Tunisia indicates a large number of women, (95%), aware to the importance of PNC examination but 5% did not know [39].

The study which was conducted in Uganda by Nankwanga shows that out of the 330 (100%) of the participants who responded, 190 (57.6%) of them were aware and attended postnatal services but 42 (12.7%) of the mothers were aware of PNC services but did not attend the services, and also 1 (0.3%) participant attended postnatal services despite not being aware of the services but 97(29.4%) of the participants were not aware of the services and did not attend the services [34].

A qualitative study conducted in Southern Tanzania indicates the respondents in the communities did not make a distinction between the care in the first six weeks and the Expanded Programme on Immunisation (EPI) which is one component of PNC. This confusion may exist because EPI begin shortly after birth and are first administered during the PNC period [40].

The study conducted in rural Bangladesh show 65% of the infants were bathed before 24 hrs, and 44% were bathed immediately after birth i.e. the result shows the timing of first bathing of infant in relation to responses of the mothers are immediately 43.8%, <6hrs 6.9%, 7-24 hrs 14.7% ,> 24hrs 30.6%, and don't know 4% [41].

In terms of ever-breastfeeding in the above study shows twenty-eight percent of the infants were put to the breast immediately, with 48% within the first hour, while 22% waited for more than 24 hours after delivery specifically timing of first breastfeeding of infant in this study shows immediately after birth 28.3 %, <1hrs after birth 19.4%, between 2 and 6 hours after birth 13.2%, between 7 and 24 hrs after birth 3.9%, between 2 & 3 days after birth 16.6% & after 3 days after birth 5.7% [41]. Another study which was carried out in Mali indicates only 60 percent of respondents believed postnatal care to be essential for all women [42].

2.2.4. Accessibility/ availability of PNC

The study carried out in Uganda shows out of 330 (100%) mothers, 170 (52%) who were aware of postnatal services stayed within a distance of one to five kilometers from the hospital but only 62 (19%) who stayed at a distance greater than five kilometers were aware of PNC services [34].

Focus group interview was carried out in Indonesia resulted with the perceived cost of health services emerged as a major issue hindering community members from utilizing postnatal care services[43].For 6 of every 10 women distance to a health facility and not wanting to go alone were perceived as problems [44].

2.2.5. Quality of PNC

Webster conducted a survey in 2005 to examine satisfaction with health care providers indicated that 16% of the women were dissatisfied with the health service providers and this probably contributed to their not utilizing the services [45].

The study results in Uganda show 27% of the participants reported that the service providers shouted at them and a total of 24.4% had other grievances concerning the treatment & 24% of the participants had a negative view about the quality of services that were provided at the hospital [34].

2.2.6. Decision making dynamics

Sometimes the decisions for women to seek medical care are made by their husbands, family members or community members except for a few of those who are educated and can make up the decision by themselves. The study which was conducted in Bangladesh in 2009 resulted with men's knowledge regarding maternal postnatal care is relatively low (35%) [46]. Additionally

qualitative study conducted in rural Uttar, India indicates few families of high social status has been captured in the study and women especially daughter in laws of family have very less say on their own health and child care, they use to do what their husband and other member tell them to do and they are the main decision maker regarding service utilization [37].

The study which describes different regional maternal health care seeking behavior in Ethiopia in 2008 shows the probability the influence of household decision on PNC is not statistically significant [24].

One rural study in Butajira using both qualitative and quantitative means, the decision to seek care for any woman's health problem was found to be highly dependent on the husband's decision (89.3%) [44]. The study conducted in Uganda shows out of the 330 participants, only 12 (3.6 %) reported that they were influenced by cultural beliefs. Among the 12 (3.6%) participants who said that culture hindered them from using the services, 10 (83%) of them did not attend postnatal services [34]. A qualitative study in Ethiopia indicates that in some cultures like in Afar, mothers are not culturally allowed to go out of their home for at least forty days after birth. They should not be exposed to open air, according to their culture [24]

2.3. Conceptual framework

The model provides a framework for understanding the potential factors on an individual's decision to utilize the available health services.

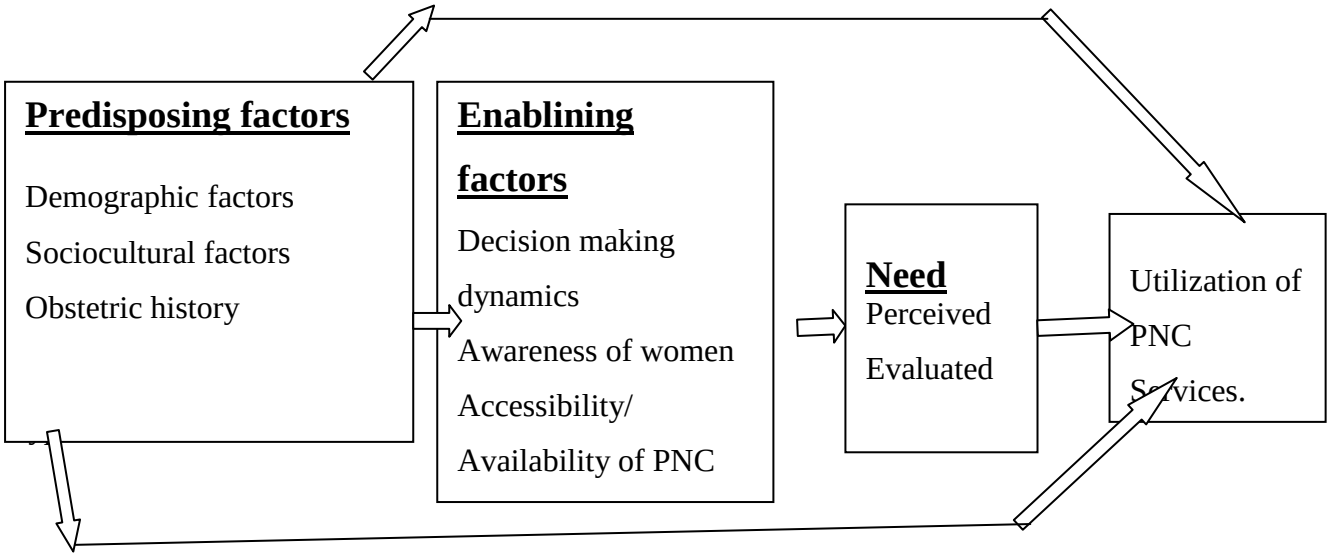


Fig1: -Conceptual framework for factors affecting the utilization of PNC in Funeteselam town, based on Anderson's health care utilization model, Apr-May 2013.

As shown in the model, each component is conceived as making an independent contribution to predicting use of a service. Among the predisposing characteristics, demographic factors such as age represent biological imperatives suggesting the likelihood for the need of health services. For instance younger women have more modern attitudes towards health care than old women [[49]].

Socio cultural status is measured by a broad array of factors that determine the status of women in the community, their ability to cope with presenting problems, commanding resources to deal with these problems and how healthy or unhealthy the physical environment is likely to be. The socio cultural factors also relates to the level of social position. Increased educational attainment

influences service use in several ways, including increasing women's power in decision-making, awareness of health services, changing marriage patterns and creating shifts in household dynamics [49].

Obstetric history also has relation with enabling and need as well health service utilization directly or indirectly. For example as birth order increases the tendency to decide and need evaluation ability increases for health services utilization by majority of women [37].

Clients vary according to their socio-economic status in so far as social status, finances and education is concerned. Finance relates to monetary resources of an individual. The availability of money to meet both direct and indirect costs of accessing a service may be a barrier to the utilization of a service. Cost has frequently been shown to be a barrier to service use [49]. Cost influences the choice of source from which care is sought. However, due to the limited resources and poverty, cultural traditions and national laws restrict women's access to financial resources and inheritance in the developing world. Without money, women cannot make independent choices about their health or seek necessary services [50]

In the model, health beliefs conceptualize the decision to seek health care as a rational balance between perceived susceptibility, barriers, and benefits. Health beliefs also refer to awareness that women have about health and health services that might influence their subsequent perceptions of need and use of the services. Health beliefs provide one means of explaining how socio cultural might influence the ability to meet the costs i.e. enabling resources, perceived

needs, and subsequent use of the health service and beliefs and attitudes of the mothers in relation to child bearing [49].

In the model above, enabling resources must be available in order to use the services. People must have the means and knowledge of getting to those services and makes use of them. Income, availability /accessibility of care, and quality of care are some of the measures that can also be important. For example accessing a service may be facilitated or hindered by the location and physical distance of the service from the client. Distance may impede or enhance utilization of a health service. For instance, some clients live near and others far from a health facility. The farther a client is away from a service, the less the utilization of the service [51].

The need for the services is an important prime determinant of use of a health service. Any comprehensive effort to model health service use must consider how women view their own general health and functional state and how they experience symptoms of illness, pain and worries about their health. And whether or not they judge their problems to be of sufficient importance and magnitude to seek professional help or that may influence women to seek postnatal services [50].

Evaluated need represents professional judgment about women's health status and their need for medical care after delivery. Needs are vary with the changing state of art and science of medicine and by the training and competency of the professional expert doing the assessment [51].

3. Objective of the study

3.1 . General objective

To assess the status of PNC service utilization and associated factors among reproductive age group mothers who gave birth in last two years at Jabitehnan woreda, Funeteselam town, West Gojjam, Amhara regional state, North West of Ethiopia, Apr-May 2013.

3.2. Specific objectives

The specific objectives of this study are the following:

i. To determine the coverage of post natal care service among mothers who gave birth in last two years in the study area.

ii. To identify factors associated with utilization of postnatal care among the study participants

4. Methods & materials

4.1. Back ground of the Study area

The study was carried out in West Gojam, Jabitehnan woreda at Funeteselam town. This town is found at 1860m above sea level with temperature of 22-24^{o}c & an area of 600 mile in West of Addis Ababa & South East of Bahirdar at a distance of 387 km and 176 km away from Addis Ababa & Bahirdar respectively. Funeteselam is main capital town for West Gojjam zone & Jabitehnan woreda administrative organs. The town has five kebeles which are 01, 02, 03, Bakele & Arera.

In the town there are one governmental hospital, one health center, one health post, 8 private clinics & 4 private drug stores. Funeteselam hospital is district hospital which gives referral purpose from Jabitehnan woreda, Quirit woreda, Burie woreda, Dembecha woreda, Womberma woreda & Degadamote woreda. In addition to the governmental health institutions, save the children & vision Ethiopia non governmental organization are found in the town.

Regarding educational institutions, Funeteselam town has 4 primary schools (1-8), one high school (9-10), one preparatory school (11-12), one private college, one teacher training governmental college & one technical & vocational training college.

4.2. Study Design and period

The study design was a community based cross sectional type which incorporates the quantitative research method. This design was used, because of the short period of the study as it aides gathering and analysis of data on the spot in a short period of time. The study was carried out from November-May, 2013.

4.3. Source Population

The source population for the study was all reproductive age groups women (15-49 years of age) who lived Funeteselam town.

4.4. Study Population

The study population was all reproductive age group mothers who have under two year's old children in Funeteselam town.

4.5. Inclusion and Exclusion Criteria

I. Inclusion Criteria

A mother who has under two year's children and lived in the town at least the last six month was included in the study.

II. Exclusion Criteria

Mothers who delivered before two years, and mental disorders was excluded from the study.

4.6. Sample size determination and Sampling procedure

i. Sample size determination

The overall minimum sample size was determined by using single population formula: **[$n=Z^2\alpha/2 *(P (1-P)/d^2$]**

Where

n=is minimum sample size required for the study, **z**=standard normal distribution (**z**=1.96), with confidence interval of 95% and **α**=0.05, **p**=prevalence/population proportion (p=45.9% from Ethiopian 2011Health and Health Related Indicators [48]), **d**=is a tolerable margin of error (d=0.05), then,

n= Z^2 α/2 *p (1-p) d^2 = $(1.96)^2$ * (0.459(1-0.459)/ (0.05)2 =359.7 =360

Contingency (10%) =360* (10/100)

Total=360+36=396. By considering the design effect 1.5, the sample size would be

n=1.5*396=594

Proportionate minimum sample size allocation to each kebele

Based on the numbers of house holds at each kebele, the minimum sample size was assigned to each kebele by using the proportionate formula: ni = (Ni/N) *X n, where, I is 1,2, and 3, ni is the minimum sample size that was taken from each kebele (i) . Hence, nt = n1+n2+n3, (i.e. the sum total of sample size for the study), Ni is the number of house hold in each kebele and N is the sum total of each kebele house holds. The number of house holds in 01, 02, & 03 kebeles are 7050, 6120 & 5595 respectively making the total house holds, 7050+6120+6595= 19765.

By using the proportionate formula

i = (Ni/N) X n

Kebele 01, n1= 7050*594/19765=212

2 .kebele 02, n2= 6120*594/19765=184

3. Kebele 03, n3= 6595*594/19765=198

Total=n1+n2+n3= 212+184+198=594

ii. Sampling procedure

Funeteselam town was selected purposively as study site by considering the health status of the mothers in the town and lack of previous researches related to maternal health care services utilization. The sampling technique for choosing the study participants was systematic sampling technique with in the town. First, the three study kebeles was selected from five kebeles by using simple random sampling techniques. After this, the K^{th} value of each selected kebele was calculated by dividing number of households of each kebele by the sample size of each respective kebele. Then, numbers was given to the houses, and also the starting house was selected by simple random method from the list of the house number. After this, interviewing of the mother was carried out in every K^{th} interval from the starting point. If there were two or more mothers in the house, one was selected using lottery method. The over all sampling techniques that were performed in the town are in the form of the following figure.

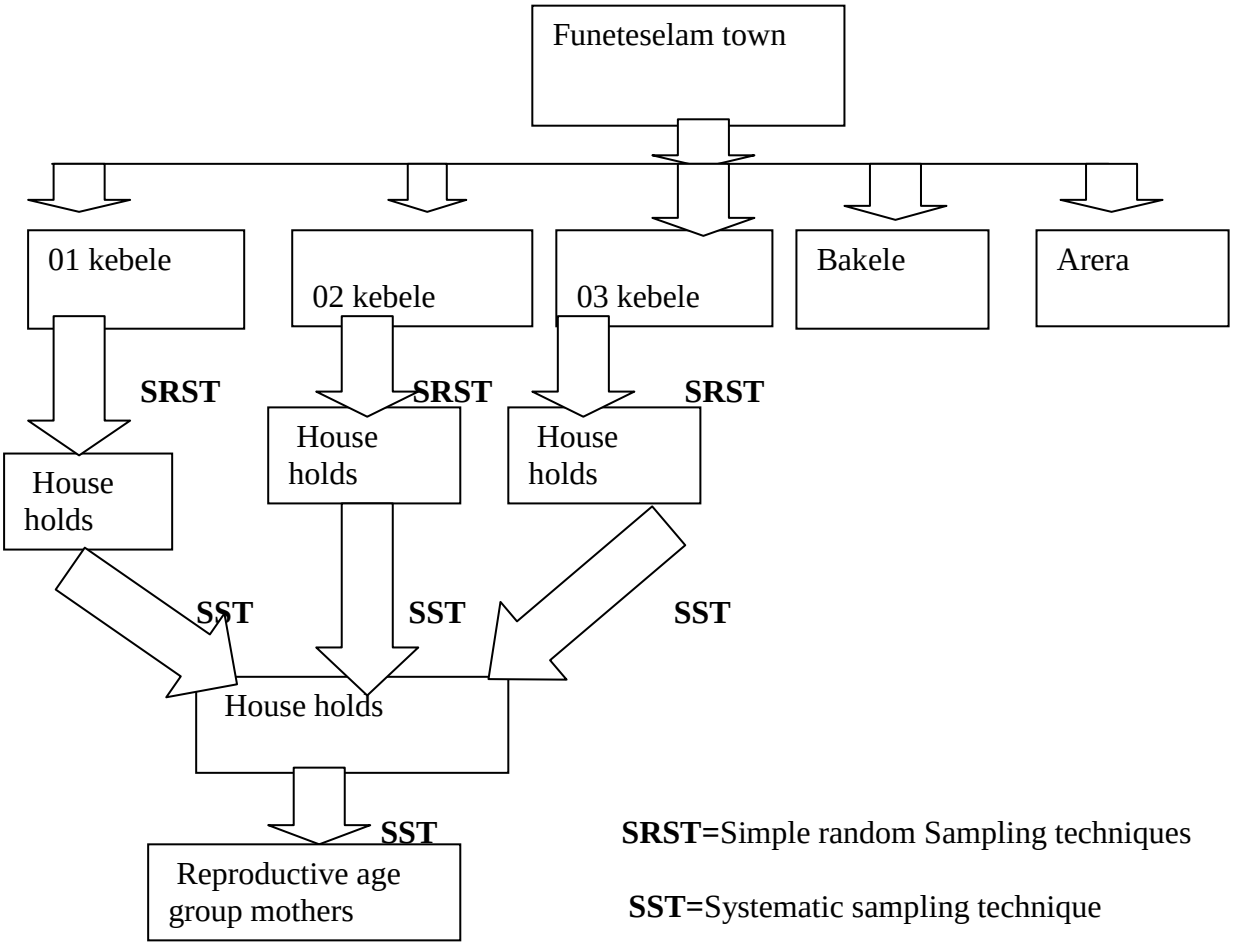


Figure 2: Schematic presentation of sampling techniques for participants in Funeteselam town, West Gojam, North West of Ethiopia, Apr-May .2013.

4.7. Study Variables

i. Independent Variables

1. Demographic characteristics
2. Obstetric history (parity, gravidity, birth order, place of delivery, age at birth, instrumental delivery, episiotomy & cesarean section)
3. Sociocultural factors
4. Decision making dynamics

5. Awareness of women

ii. Dependent variable

Postnatal care services utilization

4.8. Operational definition of terms

Monthly income: referred to the mother's actual or approximate monthly income of the mother alone or the family's as a whole. The minimum income in this study was labeled as <-500.00 Eth. Birr while the maximum was considered to be 4000.00 Ethiopian birr.

Occupational status/employment: in this study, it ranged from any activity in which the individual mothers are involved to win their daily life to professional work or employment to different governmental/nongovernmental organizations getting big salaries. Thus, in this study if the mother has some job on which she depends for survival, she has a job regardless of its status.

Parity: applied to all births at 28 or more weeks of gestation regardless of whether the birth results were of alive or dead babies. This will be measured by the mother's self report of giving birth at or beyond 28 weeks of gestation.

Gravidity: applied to the number pregnancy that the mothers conceive**.** This will be measured by the mother's self report of pregnancy.

Birth Order: This is a measure of the order of childbirth a woman is experiencing. It is measured in5 cohorts: 1^{st}, 2^{nd}, 3^{rd}, 4^{th} and 5^{th} and above.

Place of delivery: The proportion of pregnant women who delivered in a health facility and those that delivered at home. The variable is coded as delivered in an 'institution' or 'home'.

Age at birth: The age of the mother at the time of delivery of the child.

Sociocultural factors: The perceived assumptions with in the community which affects postnatal care utilization. It is measured by any perceptions that prevent the community to utilize postnatal care.

Decision making dynamics: The individual who decide the utilization of postnatal following the delivery of child care. It can be leveled as mothers or other individuals.

Attitude of husband: it is the belief of husband to wards the utilization of PNC. It is measured as 'positive' if permits the women to utilize PNC and 'negative' if not allow the women to use PNC.

Awareness: awareness defines as answering of the part four questionnaires as follow.

The respondents who response total score of >- 75% will be considered the mothers were aware to the services provided in postnatal period, where as < -75% was considered the mothers were not to aware the services provided in the postnatal period.

Quality of care: Proportion of women who receive full package of care visits effectively without difficulty.

Postnatal care services utilization: Percent distribution of women who received care from 24 hours after delivery up to 41 days from a trained professional. This is coded as 'yes' received or 'no' not received.

4.9. Data collection instrument & techniques

i. Data collection instrument

After reviewing of the relevant literature, the questionnaire adapted [47, 52] & modified as appropriate to address the study objectives. To develop the final version of questionnaire, an individual who has a very good ability of both English & Amharic language translated the English version to Amharic. Another individual with similar ability then translate the final or the

agreed Amharic version of the questionnaire back to English with the first to check for any inconsistency or distortion in the meaning of words in the content of instrument. Finally, the instrument incorporated the following five parts:

Part one: socio demographic characteristics

Part two: obstetric history

Part three: postnatal care utilization

Part four: awareness of women about PNC

Part five: quality of postnatal care

After adapting the final version of the questionnaire, face to face interview was conducted to collect data by using Amharic version questionnaire from Apr 2-May 1, 2013.

ii. Data collection technique

Twelve data collectors who are nurses & speak Amharic language were selected. The criteria that were used for the selection of data collectors are being nurses & diploma level, know the Amharic language, and know the study area very well. One BScN for supervision was assigned for supervision. Both the interviewers & the supervisor given one day (8 hours) training before actual field work about the aim of study, study procedure, & data collection techniques by principal investigator.

4.10. Pretest

The pre test of the questionnaire was carried out in one of the kebele in Jabitehnan woreda outside of the selected kebeles that has similar socio-demographics characteristics with the people live in the selected kebeles. A 10% of the total sample respondents were interviewed during the pretest. After this, the questionnaire was edited accordingly.

4.11. Data quality control

During data collection, data were checked for its completeness, and missing information at each points by both principal investigator and data collectors themselves. For accurate collection of the data, data collectors were trained and follow up was made. In addition to the above, data were rechecked during data entry into the computer soft ware before analysis, and also damy table was prepared to prevent missing of important data.

4.12. Proposed statstical data analysis

The data first were cleaned, edited, coded and entered into computer via epi Info version-3.5.1 and analyzed using SPSS version -16. The degree of association between the independent & dependent variable was assessed using descriptive statistics, bivariate and multivariate logistic regression model. Chi-square test for trend was used for association of ordinal categorical factors and postnatal care. The Odds Ratio (OR) and its 95% Confidence Interval (CI) were calculated to measure the strength of the association between independent variables and postnatal care services utilizations. Those factors that were significant in the bivariate logistic regression analysis were considered for the multivariate logistic regression analysis. Multivariate logistic regression was used to find best combination of factors predicting postnatal care. A p value of less than 0.05 was considered to be statistically significant. Finally the results of the study were presented using tables, figures and texts based on the data obtained.

4.13. Ethical considerations

Before the beginning of data collection, the principal investigator received paper of approval from Addis Ababa University, College of health sciences Institutional Review Board (IRB), and letter of permission department of Nursing. After this, the letter was given to Jabitehnan woreda

health bureau. Then, the health office leader wrote permission letter to concerned kebele administrators.

Subject information sheet, which contains purpose of the research, procedures to be carried out, expected benefits of the study, compensation, and confidentiality of information, was explained to the participants. At the same time, it was made clear that participation was totally based on verbal consent form which contains willingness of the participants.

4.14. Utilization and dissemination of the study results

The result of the study will be disseminated through provision of hard copies to the concerned bodies including; the study organizations, presentation on professional conferences and putting the result documents in the libraries and through publications in scientific journals.

5. Results

In this study, all eligible women in the selected samples responded to the questionnaire or it had 100 percent response rate, and also result reveals educational level of women, marietal status, obstetric history, place of delivery, planning PNC utilization, long waiting time, decision making problem and level of awareness are significant predictors in explaining the use of postnatal care services in the study area.

5.1. Socio demographic characteristics of women

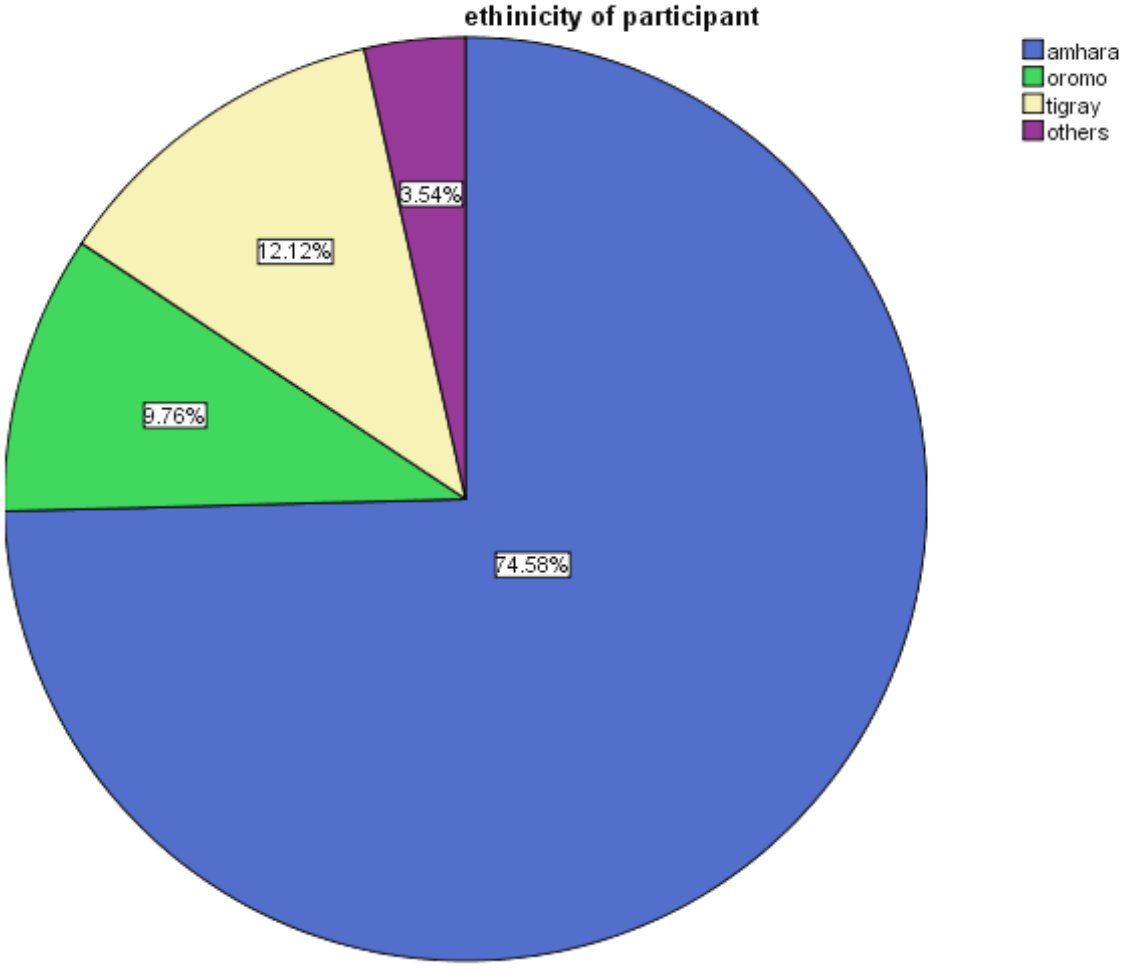
The study result on socio-demographic variables showed that, 178 (30%) of the study women's age lie between 25-29 years but the least lies 15-19 years 54(9.1%). Many numbers of educational statuses of women were elementary school 196(33.0%), but the small numbers were higher institution, 58 (9.8%). As to religion, the majority of women were follower of orthodox, 515(86.7%). The occupational status of many numbers of the study groups were house wife, 184 (31%), but the least one was student, 47(7.9%). The monthly income of many numbers of the study groups, 190 (32%) fall with in the range of 1500-2000 Ethiopian birr per month followed by 148 (24.9%) of monthly income of 1000-1500 Ethio birr as shown by table (1).

Table 1:Frequency distribution of women's socio demographic characteristics in Funeteselam town, West Gojam, Amhara regional state, North West Ethiopia, Apr-May, 2013.

Variables	Frequency	Percent (%)
Age		
15-19 years	54	9.1
20-24years	105	17.7
25-29 years	178	30.0
30-34 years	170	28.6
35 and above years	87	14.6
Educational status		
Illiterate	117	19.7
Read and write	116	19.5
Elementary school	196	33.0
Secondary school	107	18.0
Higher institution	58	9.8
Occupational status		
House wife	184	31.0
Maid servant	145	24.4
Civil servant	122	20.5
Merchant	96	16.2
Student	47	7.9
Religion		
Orthodox	515	86.7
Muslim	43	7.2
Protestant	32	5.4
Others##	4	0.7
Income per month		
<500birr	23	3.9
500-1000birr	93	15.7
1000-1500birr	148	24.9
1500-2000birr	190	32.0
2000-2500birr	120	20.2
2500 birr and above	20	3.4

##catholic and traditional believers

Most of the study groups were Amhara accounting 443 (74.6%) as shown by figure 3.



Others=guragae and agew

Fig 3:-Frequency distribution of ethnicity of women in Funeteselam town, West Gojjam zone, Amhara regional state, North West Ethiopia, Apr-May 2013.

Majority of women were married, but the least 42(7.1%) of them were never married as shown by figure 4.

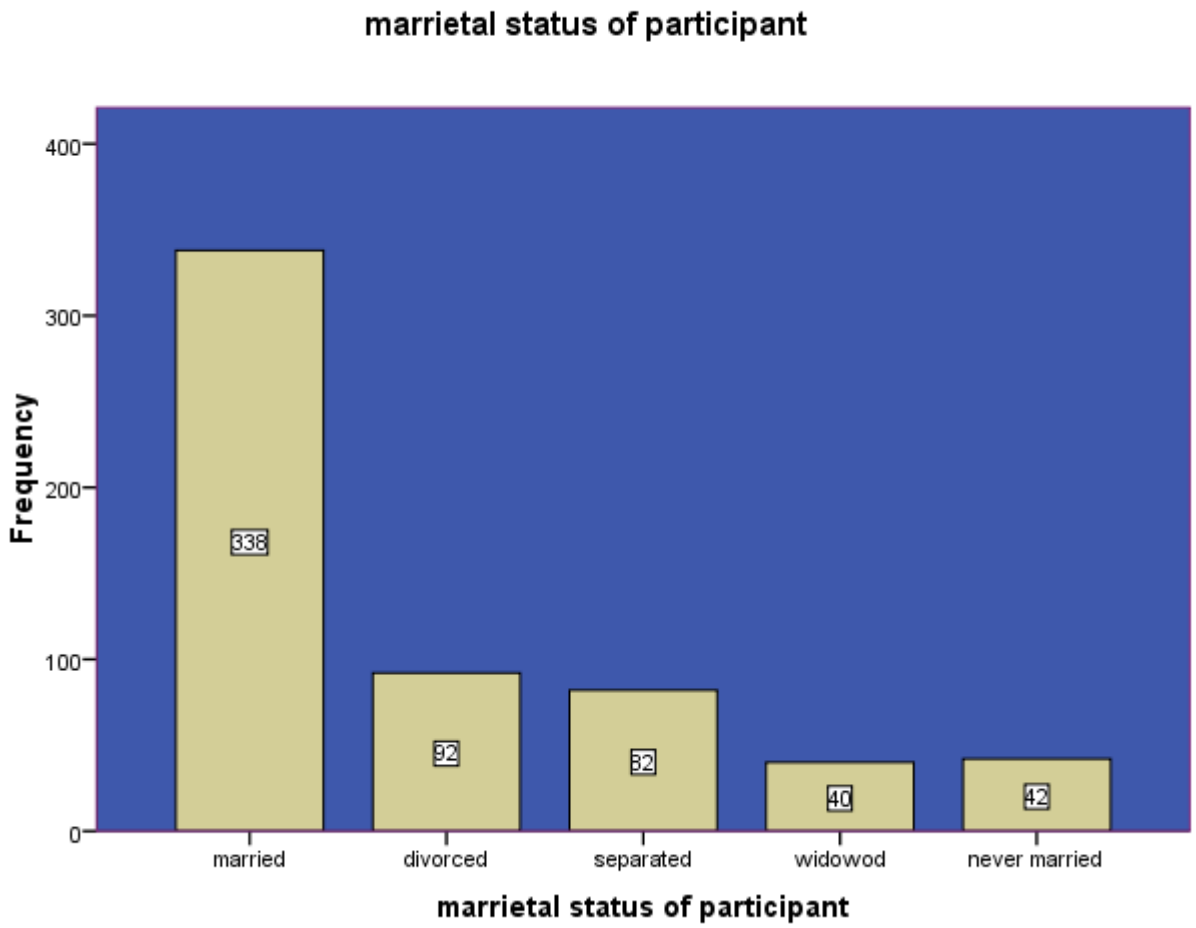


Fig 4:- Frequency distribution of marietal status of women in Funeteselam town, West Gojjam, Amhara regional state, North West Ethiopia, Apr-May. 2013.

5.2. Obstetric history

Majority of the women's age at first pregnancy were 19+years, which accounts 522(87.9%). Like wise, the majority of the participants had three pregnancies, 260(43.8). Regarding to number of deliveries, many numbers of women had two deliveries, 228(38.4%) followed by one delivery,

183(30.8%). As to birth order of women, the many numbers of women had 2nd order, 228(38.4%) followed by 1st order, 183(30.8%). Majority of the respondents didn't have history of C/s, 533 (88.2%). Similarly many numbers respondent didn't episiotomy history, 524(88.2%). Like wise, five hundred fifty eight (93%) didn't have history of instrumental birth as shown by table (2).

Table 2:- Frequency distribution of obstetric history of women in Funeteselam town, West Gojjam, Amhara regional estate, North West Ethiopia, Apr-May, 2013.

Variable	Frequency	Percent (%)
Age at first pregnancy		
<19 years	72	12.1
19+ years	522	87.9
Number of pregnancy		
One	110	18.5
Two	132	22.2
Three	260	43.8
Four and above	92	15.5
Number of delivery		
One	183	30.8
two	228	38.4
Three and above	183	30.8
Birth order		
1st	183	30.8
2nd	228	38.4
3rd and above	183	30.8
Cesarean section delivery		
No cesarean section	533	89.7
One and above	61	10.3
Episiotomy delivery		
No episiotomy delivery	524	88.2
One and above	70	11.8
Instrumental delivery		
No instrumental delivery	558	93.9
One and above	36	6.1

5.3. Postnatal care service utilization of women

Concerning place of last child delivery, 494 (83.2 %) of the deliveries took place at home, and 100(16.8%) at health institution. From the home delivered women, 113(22.9%) had plan for PNC utilization but 381 (77.1%) didn't plan for utilization of PNC as shown by table (3).

From all respondents, 120(20.2%) of women utilized postnatal care services but the remaining 474(79.8%) didn't utilized the required services. Among PNC utilizors, majority of the

respondent 72 (60%) started utilization of PNC within 4hrs of delivery but the rest 49(40) after 4hrs of delivery. In relation to total number of visit, many of the respondents visited four and above, 71(59.2%) but the rest 49(41.8%) visited less than four from hospital, health center, and clinic as shown by figure (6).The major reason for preferring such health institutions was closest to home but the least one was good behavior of health workers 16(6.9%). PNC users raised different reasons for initiating PNC visit for the first time. Among the several reasons raised, majority 96(70.1%) of respondents said due to health problems, but 27(19.7%) of women said for regular follow up. As to waiting time, ninety one (75.8%) of PNC user respondents said it was a problem but 19(24.2%) of them said it was not a problem as shown by table (3).

All women were asked to give their opinion on barriers to postnatal care utilization in their community. Among reasons for not attending PNC services utilization, majority of the respondent said no/little knowledge, 534 (32.8%) followed by being healthy , 446(27.4%) as shown by table (3).

Four hundred eighty three (81.3%) of the respondents decided postnatal care utilization by themselves but one hundred eleven (18.7%) of respondents said decision is decided by husbands, and families, 51(45.9 %,) and 60 (54.1%) respectively due to cultural, 109(97.3%), and religion, 2 (1.8%) effects. Regarding to husbands attitude, thirty two (5.4%) of respondents said that their husband had positive attitude, but the rest 25 (4.2%) of respondents said that they had negative attitude to PNC services as shown by table (3).

Table 3:-Postnatal care services utilization of women in Funeteselam town, West Gojam, Amhara regional estate, North West Ethiopia, Apr-May 2013.

Variables	Frequency	Percent (%)
Last child delivery place		
At health institution	100	16.8
At home	494	83.2
Plan for PNC utilization		
Yes	113	22.9
No	381	77.1
Participants utilization of PNC		
Yes	120	20.2
No	474	79.8
Starting time for utilization of PNC		
Within 4 hrs of delivery	72	60.0
4-23 hrs of delivery	29	24.2
Within 1-2 day of delivery	9	7.5
Within3-41dayof delivery	10	8.3
Reasons for preferring the health institution		
Closest to home	103	44.2
No expenses	96	41.2
Good behavior of health workers	16	6.9
Covenant time	18	7.7
Initiators for PNC utilization		
Health problem	96	70.1
To start regular checkup	27	19.7
To start immunization	14	10.2
Waiting time problem		
Yes	91	75.8
No	29	24.2
Average waiting time for utilization of PNC		
<1hrs	33	27.5
1-2hrs	87	72.5
Influencing factors for PNC services		
No/little knowledge	534	32.8
Being healthy	446	27.4
Being busy	282	17.3
Far from house	122	7.5
Long waiting time	209	12.8
Others(decision making problem & with out reason)	37	2.2

Decide by your self		
No	483	81.3
Yes	111	18.7
Who decide on the behalf of you		
Husband	51	45.9
Family	60	54.1
Attitude of husband to PNC utilization		
Positive	32	5.4
Negative	25	4.2
Don't know	54	9.1
Reasons for deciding by others		
Religion	2	1.8
cultural	109	98.2

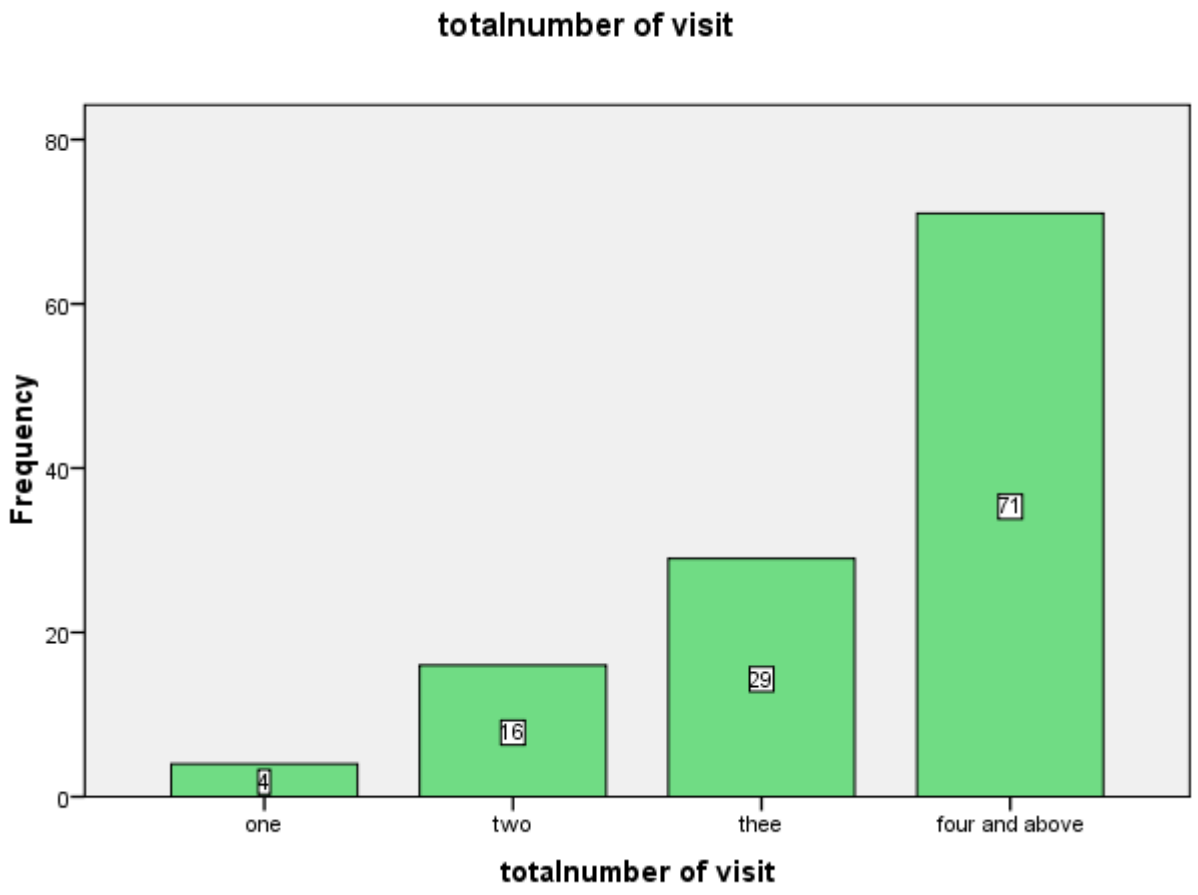


Figure 5:-Frequency distribution of total number of visit of the women to PNC department in Funeteselam town, West Gojjam, Amhara regional estate, North West Ethiopia, Apr-May, 2013.

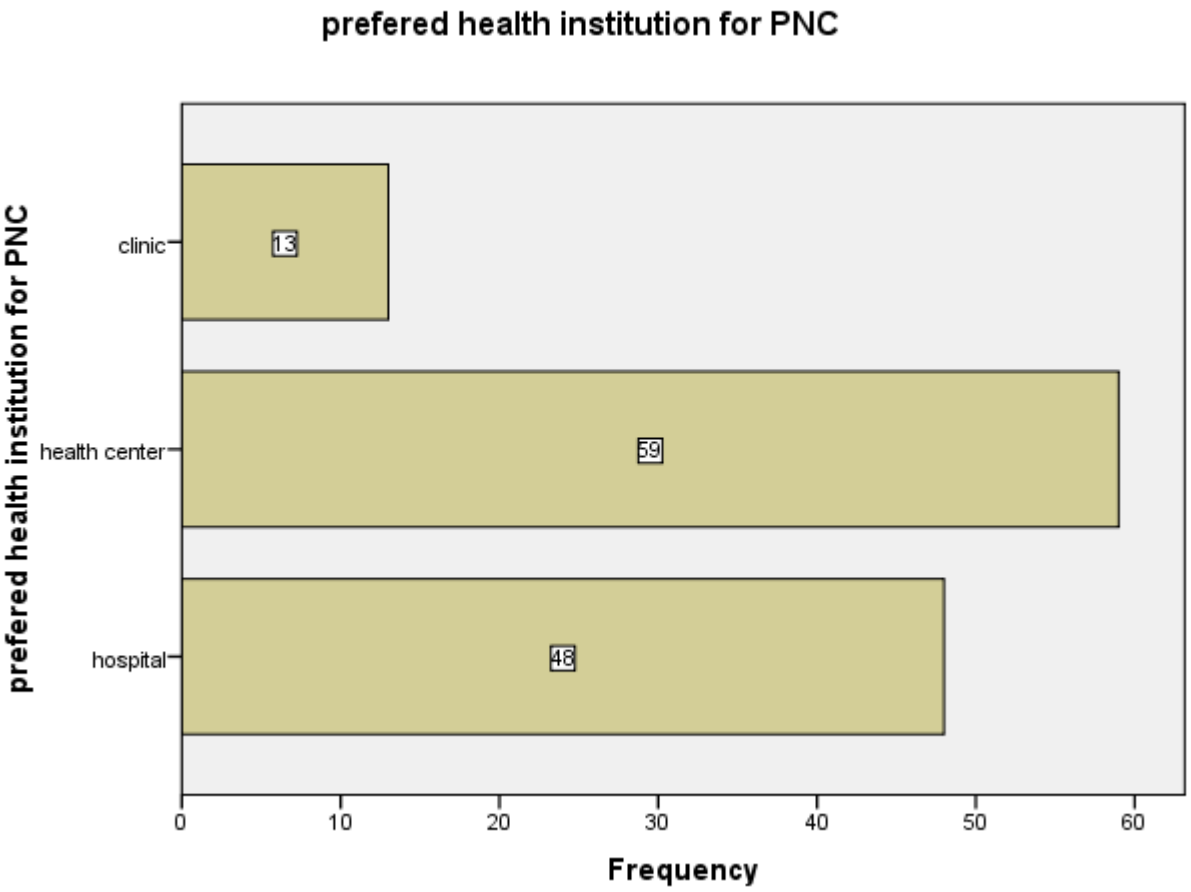


Figure 6:-Frequency distribution of preferred health institution for PNC user women in Funeteselam town, West Gojam, Amhara regional state, North West Ethiopia, Apr-May 2013

5.4. Awareness of women to PNC services utilization

The majority of women, 497(83.8%) said healthy mothers shouldn't attend PNC utilization. From all respondents, 183 (30.8%) of women knew the PNC services but 411 (69.2%) didn't know the care provided in PNC unit. The majority, 563(87.7%) of women reported that PNC check-up has benefits to the health of both the mother and children. From 594 women, 259(43.6%) knew the child bath after 24 hrs. Regarding to breast feeding time, 333(56.4%) of women said immediately after birth but the rest, 260 (44.4%) said the later coming time as shown by figure (8). In general, Many number 430 (72.4%) of the women were not aware but 164 (27.6%) of them were aware to the care provided as shown by table (4).

Table 4:- Frequency distribution of women's awareness on the utilization of PNC services at Funeteselam town, West Gojam, Amhara regional state, North West Ethiopia, Apr-May 2013.

Variable	Frequency	Percent (%)
Healthy mother attend PNC		
Yes	97	16.3
No	497	83.7
Time of starting PNC		
Within one hrs of birth	37	38.1
Within two day of birth	12	12.4
Within sex week of birth	48	49.5
Knowing PNC services		
Yes	183	30.8
No	411	69.2
Provided care at PNC visit		
Family planning	188	32.0
Child bathing	167	28.4
Immunization	92	15.6
Breast feeding	141	24.0
Benefit of PNC utilization		
Mothers	117	19.7
Child	123	20.7
Both mothers and child	148	24.9
Do not know	206	34.7
Time of child bathing		
Immediately	165	27.8
<6hrs	78	13.1
7-24 hrs	91	15.3
After 24 hrs	259	43.6
Don't know	1	0.2
Aware to dangerous problem at postnatal period		
Yes	233	39.2
No	361	60.8
Dangerous problem at post natal period		
Anemia	214	28.8
Vaginal bleeding	185	24.9
Headack	189	25.4
Depression	155	20.9
Level of awareness		
Not aware	430	72.4
Aware	164	27.6

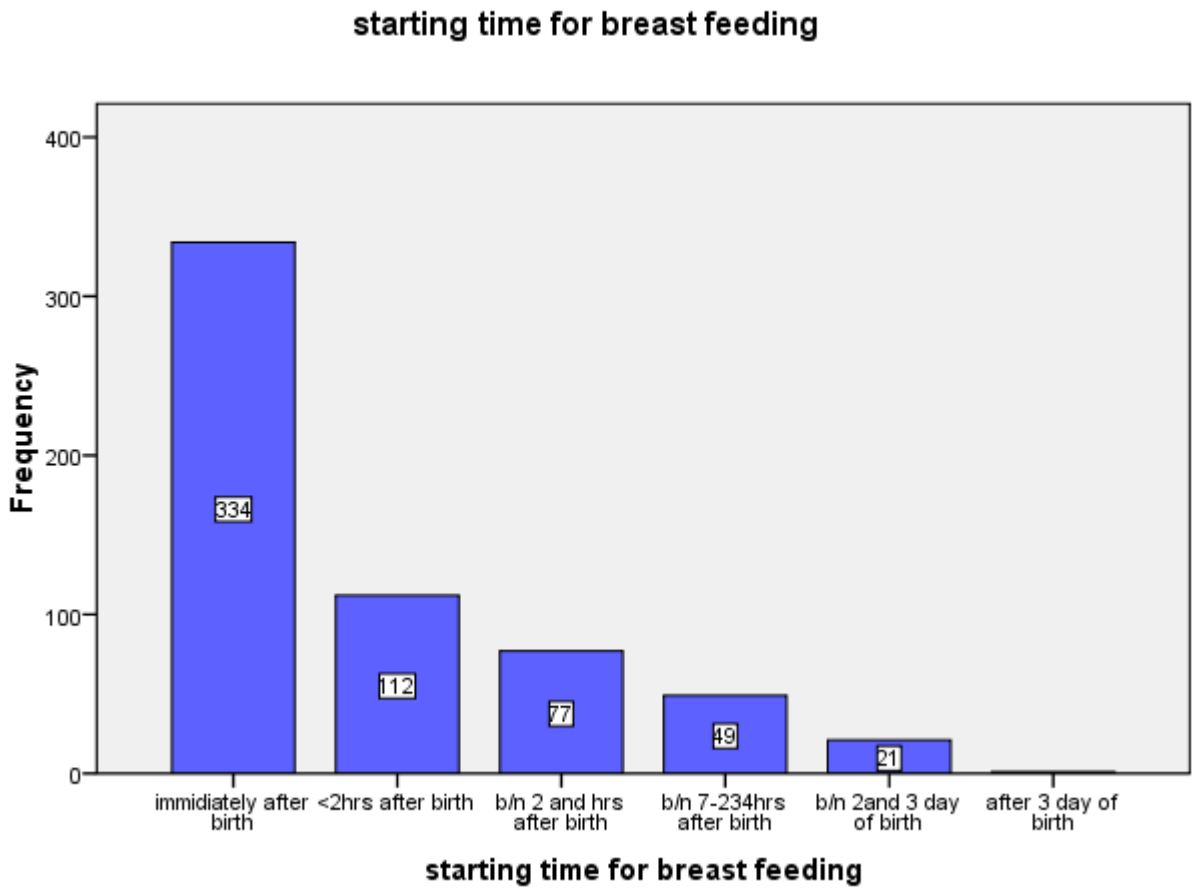


Fig 7:-Frequency distribution of women's awareness about starting time for breast feeding in Funeteselam town, West Gojam, Amhara regional estate, North West Ethiopia, Apr-May, 2013.

5.5. PNC user women perception on the quality of postnatal care service

Many numbers, 74 (61.7%) of PNC user women reported that health workers were not respectful for them but the remaining 46(38.3%) said that they were respect full. Among 120 PNC users, 80 (66.7%) women said no problem of privacy at PNC department. As to trusts about the services provided, majority of the respondent 59(49.2%) didn't have trust about the services but only 52(43.3%) of respondents had trust about the provided care. In relation to the behaviour of health workers, 37(30.8%) of women said very good but 28 (23.4%) of them reported bad and the majority, 65(54.4%) of women said that the distance from home to health institution is 1.5-5km.

Table 5:- PNC users women perception on the quality of postnatal care service in Funeteselam towns, West Gojam zone, Amhara regional state, North West of Ethiopia Apr-May, 2013.

Variables	Frequency	Percent (%)
Respective fullness of health worker		
Yes	46	38.3
No	74	61.7
Confidences about the care provided		
Yes	52	43.3
No	59	49.2
Don't know	9	7.5
Behavior of health workers		
V.good	37	30.8
Good	55	45.8
Bad	28	23.4
Problem of lack of privacy during PNC check up		
Yes	40	33.3
No	80	66.7
Distance from house to health institution	23	19.2
<1.5 km		
1.5-5km	65	54.2
>5km	32	26.7
Average time taken from house to health institution		
<1hrs	50	41.7
1-2hrs	70	58.3

5.6. Socio demographic characteristics association with PNC utilization

An attempt was made to find which socio-demographic factors were associated with postnatal care. Women who had educational status of secondary school three times [AOR=2.689, 95%CI: (453, 15.965 more likely as compared to illiterate women. and also having higher institution utilized PNC four times [AOR=4.156, 95%CI: (.484, 35.705)] more likely as compared to illiterate women.

Similarly, married women used PNC services three times [AOR= 2.648, 95%CI: (.622, 11.278)] more likely as compared to women who were never married as shown by table (6).

Table 6:- Socio demographic characters association with PNC utilization in Funeteselam towns, West Gojam zone, Amhara regional state, North West of Ethiopia, Apr-May, 2013.

Variables	participants utilization of PNC			COR(95% CI)	AOR(95%CI)
	No	Yes	Total		
Age					
15-19 years	44	10	54	1.00+	
20-24years	83	22	105	1.166 (0.507, 2.680)	
25-29 years	148	30	178	.892(0.404, 1.967)	
30-34 years	130	40	170	1.354(0.625,2.932)	
35and above yrs	69	18	87	1.148(0.485, 2.714)	
Educational status					
Illiterate	103	14	117	1.00	1.00
Read and write	98	18	116	1.35 (0.638, 2.864)	.188(0.015, 2.301)
Elementary school	160	36	196	1.655(0.851 , 3.219)	1.338(0.258, 6.937)
2nd ary school	77	30	107	2.866(1.424, 5.771)**	2.689(0.453, 15.965)
Higherinstitution	36	22	58	4.496(2.082, 9.711)***	4.156(0.484, 35.705)
Ethnicity					
Amhara	354	89	443	1.508(0.435, 5.234)	
Oromo	46	12	58	1.565(0.395, 6.206)	
Tigray	56	16	72	1.714(0.448, 6.564)	
Others#	18	3	21	1.00	
Occupational status					
House wife	144	40	184	1.00	1.00
Maid servant	128	17	145	0.810 (.385, 1.704)	0.330(0.057, 1.917)
Civil servant	88	34	122	0.387(0.169, 0.887)	1.082(0.249, 4.713)
Merchant	79	17	96	1.127(0.524, 2.424)*	0.419(0.063, 2.782)
Student	35	12	47	0.628(0.271, 1.453)	0.924(0.281, 16.087)
Religion					
Orthodox	412	103	515	0 .912(0.511,1 .626)	
Others##	62	17	79	1.00	
Marietal status					
Married	267	71	338	1.130(0.501, 2.549)	2.648(0.622, 11.278)
Divorced	67	25	92	0.1.586(0.647, 3.888)	0.610(0.097, 3.846)
Separated	70	12	82	0.729(0.272, 1.949)	0.550(0.042, 7.163)
Widowed	36	4	40	0 .472(0.130, 1.713)	1.598(0.170, 15.028)
Never married	34	8	42	1.00	1.00
Income per month					
<500birr	23	0	23	1.00	
500-1000birr	80	13	93	0.594(0.324, 1.090)	
1000 and above	370	108	478	1.130(0.501, 2.549)	

##Muslim, protestant, catholic, and traditional believers, #Guragae, and agew, and +Reference *=p<0.05, **=p<0.01, ***=p<0.001

5.7. Obstetric history women association with PNC utilization

Most of the obstetric history of women like number of delivery, birth order, number of episiotomy and number of instrumental delivery were significantly associated with PNC utilization. Women who had history of two and above deliveries utilized PNC three times [AOR=2.820, 95%CI: (0.156, 50.923)] more likely as compared to women who had one delivery history. Women who had history of one, two and above C/Ss, utilized PNC two times, and six times [AOR= 2.075, 95%CI: (0.347, 12.409)], and [AOR=6.51, 95%CI: (0.417, 106.177 more likely as compared to women who hadn't the above history respectively. Similarly, women who had history of one and above episiotomies utilized PNC nine times [AOR=8.965, 95%CI: (2.531, 31.758) more likely than the women who hadn't the history of episiotomical delivery. Like wise, women with one and above instrumental deliveries utilized PNC twelve times [AOR=12.494, 95%CI: (1.961, 79.595)] more likely as compared to women who didn't have instrumental delivery history as shown by table (7).

Table 7:- Association of obstetric history with PNC utilization in Funeteselam towns, West Gojam zone, Amhara regional state, North West of Ethiopia, Apr-May, 2013.

Variable	PNC utilization			COR(95% CI)	AOR(95%CI)
	No	Yes	Total		
Age at first pregnancy					
<19 years	56	16	72	1.00+	
19+ years	418	104	522	0.871(.480, 1.580)	
Number of pregnancy					
One	78	32	110	1.00+	1.00
Two	97	35	132	0.880(0 .500, 1.547)	0.824(0.126, 5.398)
Three	221	39	260	0.430(0 .252, 1.734)*	0.716(0.075, 6.829)
Four and above	78	14	92	0.438 (0.217, 2.883)*	0.684(0.041, 11.419)
Number of delivery					
One	136	47	183	1.00	1.00
Two and above	188	40	228	0.616(1 .383, 28.991)	2.820(0.156, 50.923)
Birth order					
1st	138	48	186	1.00	
2nd	190	40	230	0.605(0.377, 1.972)	
3rd	106	22	128	0.597(.339, 1.049)	
4th and above	40	10	50	0.719(0.334, 1.547)	
Number of C/S					
Zero	430	103	533	1.00	1.00
One	38	16	54	1.437 (0.171, 12.068)	2.075(0.347, 12.409)
Two	6	1	7	2.526(0.281, 22.711)	6.651(0.417, 106.177)
Number of episiotomy					
Zero	434	90	524	1.00	1.00
One and above	38	27	65	11.25(1.991, 43.89)***	8.965(2.531, 1.758) ***
Number instrumental birth					
Zero	455	103	558	1.00	1.00
One and above	19	15	34	3.487(1.715, 7.093)***	12.494(1.961, 79.5 95)***

+=reference, *=p<0.05, **=p<0.01, ***=p<0.001

5.8. Influencing factors association with PNC utilization

An attempt was carried out to show the association of influencing factors with PNC utilization. Women who had plan for PNC utilization utilized PNC six times [AOR=6.150, 95%CI: (1.928, 9.617)] more likely as compared to the women didn't plan to utilize PNC service. Similarly women who decided by themselves utilized PNC services thirteen times [AOR=12.711, 95%CI: (1.352, 19.499)] more likely as compared to women who didn't decide by themselves. On the other hand, long waiting time reduced PNC utilization four times [AOR=3.907, 95%: (1.304, 11.711)] more likely as compared to the women who didn't face such problem. Like wise, decision making dynamics reduced PNC utilization five times [AOR=5.278, 95%CI: (.204, 136.338)] more likely as compared to the women who didn't face such problem as shown by table (8).

Table 8:- Influencing factors association with PNC utilization by in Funeteselam towns, West Gojam zone, Amhara regional state, North West of Ethiopia, Apr-May, 2013.

Variables	Utilization of PNC			COR(95% CI)	AOR(95%CI)
	No	Yes	Total		
Last child deliver place					
At health institution	9	91	100	6.223(3. 798,22.254)*	1.5959(0.789, 2.323)
At home	465	29	494	1.00+	1.00
Plan for PNC utilization					
No	365	16	381	1.00	1.00
Yes	100	13	113	2.966(1.381, 6.370) *****	6.150,(1.928, 36.617)******
No/little knowledge					
No	50	9	59	1.00	
Yes	423	111	534	0.686(0.327, 1.437)	
Being healthy					
No	123	25	148	1.00	
Yes	351	95	446	1.332(0.819, 2.165)	
Not telling return back					
No	465	119	584	1.00	
Yes	9	1	10	0.434(0.054, 3.461)	
Being busy					
No	250	62	312	1.00	
Yes	224	58	282	1.044(0.699, 1.559)	
Far from house					
No	384	88	472	1.00	
Yes	90	32	122	1.552(0.974 , 2.470)	
Long waiting time					
No	32	63	385	1.00	1.00
Yes	152	57	209	1.917(1.276,2.879)******	3.907(1.304, 1.711)*****
Decisionmaking problem					
No	467	115	582	1.00	1.00
Yes	7	5	12	2.901(0.904, 9.305)	5.278(0.204, 36.338)
Self decision on PNC					
No	86	25	111	1.00	1.00
Yes	388	95	483	0.842(0.512, 1.387)	12.71(1.352,19.499)******
Other decision maker on PNC					
Husband	38	13	51	1.368(0.560, 3.341)	
Family	48	12	60	1.00	
Husband attitude to PNC					
Positive	18	7	25	1.00	
Negative	25	7	32	1.520(0.508, 4.548)	

***=p<0.05, **=p<0.01, ***=p<0.001**

5.9. Association of women's awareness with PNC utilization

From all predictor of awareness status of the women, dangerous problems found to be strong awareness predictor for PNC utilization which enhanced PNC utilization four times [AOR=. 3.727, 95%CI: (1.094, 12.694)] more likely as compared to the women who were not aware to dangerous problems in the postnatal period. Women who were aware to PNC services utilized PNC services two times [AOR= 2.323, 95CI: (0.650, 8.307)] more likely as compared to women who were not aware to PNC services as shown by table (9).

Table 9:- Association of women's awareness with the utilization of PNC in Funeteselam towns, West Gojam zone, Amhara regional state, North West of Ethiopia, Apr-May, 2013.

Variables	**PNC utilization**			**COR(95% CI)**	**AOR(95%CI)**
	No	Yes	Total		
healthy mothers attend PNC					
No	416	81	497	1.00+	1.00
Yes	58	39	97	3.453(2.157, 5.528)***	0.923(.238, 3.574)
Knowing PNC services					
No	352	59	411	1.00	1.00
Yes	122	61	183	2.983(1.974,4.508)***	0.953(0.288, 3.154)
knowing dangerous problems					
No	325	36	361	1.00	1.00
Yes	149	84	233	5.089(3.291,7.870)***	3.727(1.094,12.694)*
Level of awareness				1.00	1.00
Not aware	362	68	430	2.472(1.626,	2.323(0.650,
Aware	112	52	164	3.757)***	8.307)

+reference, *=p<0.05, **=p<0.01, ***=p<0.001

6. Discussions

This community based cross-sectional study with the objective of assessment of factors affecting utilization of PNC services was conducted in three kebeles at Funeteselam town, Jabitehnan woreda, West Gojam, Amhara regional state, North West of Ethiopia. The study assessed predictors, and factors which influes PNC utilization, and also it examined the coverage of PNC utilization in the stated area.

Among socio demographic factors, the key predictor for PNC utilization in this study was educational statuses. Among them, secondary school educational status enhanced utilization of PNC more likely as compared to illiterate women, and also having higher educational level increased PNC utilization more likely as compared to illiterate mothers. This result is similar with the study conducted in Ethiopia, Uganda, and India [25, 26, 34, 35]. The reason for this can be education is likely to enhance female autonomy and help women develop greater confidence and capability to make decisions about their own health. It is also likely that literate women seek out higher quality services and have greater ability to use health care inputs that offer better care. In general, maternal health education is consistently and strongly associated with all types of health behavior and therefore, the use of maternal health care services to be higher among more educated mothers [33].

Similarly, being married enhanced PNC utilization more likely as compared to the respondents who were never married. This result is in line with the similar study conducted by Mekonnen in Ethiopia [25]. The reason for this can be due to psychosocial and social stigma factors that influes the women who were never married were less likely to use PNC services than who were married.

With regards to obstetric history of the respondent, histories of two and above deliveries enhanced PNC utilization more likely as compared to the respondents who had history of one child delivery. The result of this study on parity (high parity women are more likely seek PNC) is contrary to the study conducted in six countries (high parity women are the least likely to seek maternity care services) [38], Democratic Republic of Congo showed that parity was not associated to the use of PNC [21], and Ethiopia showed that low parity women more likely use PNC services [54], and Uganda [34]. This difference can be due to geographical factors and study design variation between these study areas. Higher utilization of PNC services among higher parity women in this study could be due to awareness gaining as a result of great experience sharing from health workers especially health extension workers, female associations and friends who provide and use PNC service.

Respondents with one and above C/Ss utilized PNC more likely as compared to the respondents who hadn't history of C/S deliveries. The same is true for episiotomy deliveries, and instrumental deliveries utilized PNC more likely as compared to respondents that didn't have history of episiotomy and instrumental deliveries. This result is similar with the study which was conducted in Palestine (West Bank & Gaza) [20]. Greater utilization of PNC services in these categories can be due to exposure of the women to PNC services at the time of medical assisted delivery and access to learn the types, benefits and availabilities of PNC services at the health institutions.

The other major predictor was place of delivery that indicates the mothers who delivered in health institution utilized PNC services more likely as compared to home deliveries. This study

is nearly similar with demographic health survey result in developing countries [31], and Nepal [29]. Higher utilization of PNC services in this factor can be due to exposure of the women to PNC services at the time of delivery and also get access to learn the types, benefits and availabilities of PNC services at the health institutions.

From home deliveries, mothers who had plan for PNC services utilization utilized services more likely as compared to women who didn't plan to utilize PNC service. This result is similar with the study conducted in Democratic republic of Congo, and Nepal [21, 29]. This can be due to the presences of previous awareness that motivated the women to use PNC services via pre determine planning.

As to final decision maker to PNC utilization, mothers who decided by themselves utilized PNC services more likely as compared to mothers who didn't decide by themselves. This study is in line with the similar study conducted in Palestine, Democratic republic of Congo, Mali, and Uganda [20, 21, 22, 34]. This can be due to the autonomous of the women to take any action at any time to their health related issues. The other possible reason may be autonomous women can contact with the health professionals, and attend maternal related conferences with out any interferences, and develop level of awareness about maternal health services, and then, they started to use it.

On the other hand, decision makers on the behalf of women were husbands 51(45.9%), and families 60(54.1) who had positive or negative attitudes towards PNC services utilization due to cultural 109(98.2%) and religion 2(1.8%) influences had great impact on the utilization of PNC

services even if they were not significantly associated. This result is different from the study carried out in Uganda, Bangladesh, and rural Uttar in India [34, 37, 46] which showed statistically association between culture and PNC utilization. This variation can be due to geographical and awareness level differences. Similarly, the study conducted in different region of Ethiopia, and Butajira town [24, 44] showed statistically association between culture and PNC utilization. This can be due to socio demographical characteristics as well as awareness differences of the study population.

The last but not the least predictor of PNC utilization in this study was awareness' of the respondents. From these predictors, aware to dangerous problems in postnatal period enhanced PNC utilization more likely as compared to the women who were not aware to dangerous problems. This result is similar with the study conducted in Nepal, and Uganda [29, 34]. The reason for this can be due to aware to dangerous problem is an important factor for motivation of the women and their families to understand danger signs or gravity of the condition, and lead them early contact with the health professionals.

Mothers who were aware to PNC services utilized PNC services more likely as compared to mothers who were not aware to PNC services. This result is similar with the study conducted by Nankwanga in Uganda, and Soltani in Tunisia [34, 39]. The reason can be due to having high level of awareness enhanced women's capabilities to make their own decisions about seeking healthcare, and facilitates their ability to exercise their reproductive rights as well or awareness results into women's high self-esteem especially in areas where the women's status is recognized

as inferior to that of men, and then encourage them for seeking healthcare, or taking care when problems arise.

The others major deficiencies related to awareness of respondents were starting times for child bathing, only 259(43.6%) knew the child bath after 24 hrs, and breast feeding, only 333(56.4%) of respondents said breast feeding started immediately after birth. This result is different from the study carried out in Tunisia, and Uganda [34, 39]. This variation can be occurred due to awareness differences of the respondents as it is evidenced by 27.6% of women in this study were aware to PNC services but 95% of women were aware to services in Tunisia, and also 56.7% women ware aware to PPNC services in Uganda.

This study revealed that the level of PNC service utilization is relatively lower (20.2%). These finding is almost similar with MaNHEP base line report part I in 2011 at Amhara region with 20% coverage of postnatal care by health extension workers [27] but lower than the research conducted in Palestine (West Bank), Nigeria, and Democratic Republic Congo [19, 20, 24]. This significant differences can be due to this research was performed in the community level by using probability sampling techniques but the research performed in Palestine and Nigeria is at the institutional level with non probability sampling and large sample size, and also, the study conducted in Democratic Republic of Congo is at health institution using case control study design and non probability sampling with large sample size. The other possible reason can be differences in awareness of the population which is evidenced by 40% women aware, 35% women were aware, 32% women were aware to PNC services utilization in Palestine, Nigeria

and Democratic Republic of Congo respectively but the awareness level of in this study is 27.6%.

On the other hand, PNC coverage (20.2%) in the study area is also higher than the study conducted in Ethiopia by Koblinsky, Mekonnen, and Arya [23, 25, 26]. This variation can be occurred due studies conducted by Arya and Koblinsky collect data at health institution in rural area with large sample size by probability sampling techniques but the data, in this study, were collected in town at community level by probability sampling techniques from primary data sources and also geographical factors can contribute this variation. In short, the PNC coverage of the study area is lower than Ethiopian health and health related indicators report of Amhara region in 2011 [48] but higher than EDHS-2011 findings in Amhara region as well as national level [17].

From 120 PNC utilizors, only 71(59.2) mothers had four and above total number of PNC department visit. However, a considerable number 49 (40.8%) didn't make the minimal number of visits (four) as recommended by WHO [3]. From these visitors, only 27(19.7%) were started PNC services for regular follow up purposes while 96(70.1%) were for health problems, and 14(10.2%) were in relation to immunization services utilization. These results are similar with the study conducted in Uganda [34].

The major factors which brought the low utilization of PNC in this study area were no/little knowledge, being healthy, being busy, long waiting time, far from house, and the other factors. The magnitude and types of factors of this study were different from the study conducted in

Palestine (West Bank) [18], Democratic Republic Congo [21], and Malawi [22]. These differences can be occurred due to geographical and social- economical differences of the study areas.

From all factors, only long waiting time had statstical association to PNC services utilization which reduces PNC services utilization more likely as compared to the women who didn't face such problem. Similar with the study conducted in Nepal [29]. The reason for this can be due to long waiting time limits women's willingness and ability to seek healthcare, particularly when appropriate transportation is scarce, communications difficult, and terrain and climate harsh.

Quality of PNC services which has been demonstrated as behaviour of health workers, personnel respect of health workers, lack of trust in the service provided, long distance from house to health institution, and long time taken to move from house to health institution were major challenges' for postnatal services utilizors in this study which is similar with the study carried out by Webster which indicated that women were dissatisfied with the health service providers and this probably contributed to their not utilizing the services [45] , and also it is inline with the study conducted in Uganda [34].

7. Strength and Limitations

7.1. Strengths

The strengths of this study is it was community- based study with probability sampling technique which minimizes selection bias, and can be generalized to urban areas where there is access to the health services. So that the results emerge from the study can be seen as a reflection of true happenings in the population. The other important aspect of this study is that its response rate was hundred percent.

7.2. Limitations

Limitations of this study were the following:

- There were time and resource restrictions, i.e. our study could not cover large areas.
- There was a chance of missing some of the eligible women as the information on which homes had women with children under the age of two came from the time of visit rather than a recorded population database.
- The study is a cross sectional study and it may be difficult to attribute all the changes in utilization of postnatal care services

8. Conclusion and Recommendation

8.1. Conclusion

This study was conducted to assess the coverage of PNC services utilization, and its influencing factor at the community level. The result reveals educational level of women, marietal status, obstetric history, place of delivery, planning for PNC utilization, long waiting time, decision making problem and level of awareness are significant predictors in explaining the use of postnatal care services in the study area. Finally, the findings of this study showed that postnatal care services utilization is low in the study area due to no/little knowledge, being healthy, being busy, long waiting time, far from house, decision making dynamics, and with out reason. As these factors indicate, the major barriers for PNC utilization in this study were lack of awareness and lack of self decision about PNC services in the study area.

8.2. Recommendations

The following recommendations were given based on the above results to the concerned bodies:

- Awareness should be created in the community to motivate postpartum period women to attend PNC care.
- The activities of raising the women's status should be further initiated particularly in areas of improvement of women's education and decision making capacity about their own health.
- Funeteselam health bureau should give orientation to the health professionals about ethical principles especially resepction of the patients
- Further, it is not only at health institutions but also community based educations on the topic of PNC services types, benefits and availabilities should be encouraged by ministry of health.
- Further large scale research should be done to address the actual maternal PNC services utilization status and factors which influes it measured by observation on longitudinal bases.

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10. Annexes

Annex one: Map of the study area

Annex two: Information sheet for study subjects English version

Hello ----

My name is ----------. I am a student in Addis Ababa University, Black lion teaching hospital. I am here to do a research on factors affecting postnatal care utilization which are important for maternal health development program. Now I will explain about the objectives of the study so that you can have clear understanding about the study before reaching to any decision or consensus. You are requested to ask anything unclear.

1. **Purpose of the research**: the purpose of this study is to assess factors affecting postnatal care utilization that an important input will be provided for maternal health development improvement.
2. **Procedures to be carried on**: you are by chance selected to participate. Data will be collected from you by interview in order to capture important things related to the problem.
3. **Expected benefits of the study**: your participation in this study provides you with no direct benefit but it will help us to identify important factors & to design important policy for the allocation of postnatal care resources.
4. **Compensation**: you will get no compensation benefit by participating in the study.
5. **Confidentiality of your information**: The information collected from this research project will be kept confidential and information about you that will be collected by this study will be stored in a file, without your name. In addition, it will not be revealed to anyone except the investigator and it will be kept in key and locked system, with computer pass word and at the end of the data analysis the questionnaire will be burned.
6. **Termination of the study**: Participation in the study is voluntary, and refusal to participate involves no penalty or loss of benefits to which you are otherwise entitled.

I would also like to inform you that this study is reviewed and approved by Department Ethical Clearance Committee and ethically cleared by Institutional Review Board (IRB), College of Medicine and Health sciences, Addis Ababa University

Annex three: English version subject Consent sheet

The purpose of this research project has been explained to me and I understand them. I have been informed all about study and I understand them. I agree to participate as a subject in this research project. I understand that I may end my participation at any time.

Data collector name _____Date_____ Sign_____

Supervisor name_____ Date _____sign_____

Annex four: English version questionnaires

Part one: Socio demographic characteristics

No	Question on identification of respondent	Alternative choices for responses	skip	Code
101	Present maternal age	1. 15-19 year 2. 20-24 years 3. 25-29years 4. 30-34 years 5. 35 & above		
102	What is the highest level of schooling you have ever attended?	1. Illiterate 2. Read & write 3. Elementary school 4. Secondary school 5. College/University 99. Other …….		
103	What ethnic groups are you belong?	1. Amhara 2. Oromo 3. Tigray 99. Other specify……..		
104	What is your occupation?	1. House wife 2. Maid servant 3. Civil servant 4. Merchant 5. Student 99. Other specify……...		
105	What is your religion?	1. Orthodox 2. Muslim 3. Protestant 99. Other specify……...		
106	What is your marietal status?	1. Married 2. Divorced 3. Never married 4. Separated 5. Widowed		
107	What is the average family income per month?	1. <500 birr 2. 500-1000 birr 3. 1000-1500 birr 4. 1500-2000 birr 5. 2000-2500 birr 6. 2500-3000 birr 7. 3000-3500 birr 8. 3500-4000 birr 9. above 4000 birr		

Part Two: Obstetric history				
201	Age of mother at first pregnancy	1. <19 years 2. 19+ years		
202	Number of pregnancy	1. One 2. Two 3. Three 4. Four & above		
203	Number of delivery	1. One 2. Two 3. Three 4. Four & above		
204	Birth order of the mother	1. 1st 2. 2nd 3. 3rd 4. 4th 5. 5th and above.		
205	Number of cesarean section	1. Zero 2. One 3. Two 4. Three & above		
206	Number of episiotomy	1. Zero 2. One 3. Two 4. Three & above		
207	Number of instrumental delivery	1. Zero 2. One 3. Two 4. Three & above		

Part three questionnaire on postnatal care

301	Where did you deliver your last child?	1. At home 2. At health institution → 303		
302	Did you plan to take postnatal care?	1. Yes 2. No		
303	What for do you think the benefit of postnatal care?	1. Maternal health 2. Child health 3. Both 88. Don't know 99. Other specify……..		
304	Did you go to your post natal check up in your last delivery period?	1. Yes 2. No → 317		
305	If Q#404 yes at what time did you go?	1. with in 4 hours of delivery 2. within 4-23 hours 3. within 1-2 days 4. within 3-41 days of		

		delivery		
306	What is the total number of visit?	1. Once 2. Two 3. Three 4. Four and more		
307	Which health institution did you go?	1. Hospital 2. Health center 3. Clinics 89 Other specify		
308	Why did you prefer that particular health institutions?	1. Close to where I live 2. Little or no expense 3. Behavior of health worker is best 4. Covenant time of services 5. quality of services 89 Other specify		
309	What is the main reason that initiated you for postnatal check up?	1. Health problem 2. To star regular check up 3. To start immunization 89. Other specify		
310	If you attend postnatal check up was health education given during each follow up?	1. Yes 2. No 88. Don't know		
314	If yes # 310, on what topic?	1. FP 2. Baby care 3. Breastfeeding 4. Immunization 88. Don't remember 99. other specify		
315	Do you think that waiting time was a problem while you were attending postnatal care?	1. Yes always 2. No 88. Don't know		
316	On average how long did you wait for MCH clinic?	……hrs		
317	If you didn't attend postnatal care why not?	1. No/little knowledge 2. Being in a state of good health 3. Not telling return back by the profession. 4. Being busy 5. Unaffordable expenses 6. Far from house 7. Waiting time is too long 8. Cultural factors or decision making		

		dynamics 9. Poor quality services 10. Because of religion 11. With out reason 99. Others specify……..		
318	Do you decide by your selves to take postnatal care?	1. Yes 2. No		401
321	If Q# 18 No, Who decide for taking the services on the behalf of you?	1. Religion leader 2. Your husband 3. Your family 99. Other specify……...		
322	What were your husband attitudes to wards postnatal care?	1. Positive 2. Negative 88. Don't know		
323	What are the reasons for others to decide on the behalf you?	1. Cultural aspect 2. Religion aspect 89. Other specify ……..		

Part four; respondents' awareness

401	Should healthy postpartum period mothers attend postnatal care?	1. Yes 2. No		403
402	If yes at what time should the mother attend postnatal care?	1. Within one hours of delivery 2. Within two days of delivery 3. Within six weeks & above		
403	Did you know the care provided in postnatal period?	1. Yes 2. No		
404	If Q # 403, what are they?	1. FP 2. Child bathing 3. Child wiping 4. Immunization 5. Breast feeding 88. Don't know 89. Other specify……		
405	When is the child bathed after delivery?	1. Immediately 2. <6hrs 3. 7-24 hrs 4. >24hrs 88. Don't know		
406	When is the newborn started breast feeding?	1. Immediately after birth 2. <1hrs after birth		

		3. Between 2 & 6 hours after birth 4. Between 7 & 24 hrs after birth 5. Between 2 & 3 days after birth 6. After 3 days of birth		
407	Do you know dangerous health problems related to postpartum period?	1. Yes 2. No ⇒		409
408	If # 407 yes, mention some of them?	1. Anemia 2. Vaginal bleeding 3. Headack 4. Depression 99. Others specify……..		

Part five questionnaire on the quality of postnatal care (only for postnatal users)

501	Were the health workers respect full?	1. Yes 2. No		
502	Do you think that lack of privacy is problem?	1. Yes 2. No 88. Don't know		
504	What is your feeling about quality of postnatal care?	1. Good 2. Satisfactory 3. Poor		
504	Do you have confidence on the services provided at health institutions?	1. Yes 2. No 88. Don't know		
505	How do you rank the behavior of health workers providing postnatal care?	1. V.good 2. Good 3. Fair 4. Bad		
506	What is the distances from your home to health institution?	1. Below 1.5km 2. 1.5-5km 3. Above 5km		
507	How long it take to travel from your home to the health institution?	……hrs		

Annex five: Amharic version of information sheet

በጥናቱ ለሚሳተፉ መረጃ መስጫ

ሰላም፤ ጤና ይስጠልኝ ----------

ስሜ----------ይባላል፡፡ በአዲስ አባባ ዩኒቨርስቲ ጥቁር አንበሳ ሆስፒታል ሰራተኛ/ተማሪ ነኝ፡፡ እዚህ የተገኘሁት 'ድህር-ወሊድ አገልግሎት' ላይ ጥናት ለማካሄድ ነው፡፡ ስለ ጥናቱ ዓላማና ሂደት ገለፃ አደርግልዎታለሁ፡፡ምንም ዓይነት ዉሳኔ/ስምምነት ከማድረግዎ በፊት ስለ ጥናቱና ስለሂደቱ በደንብ ይረዱ፡፡ማንኛዉንም ያልገባዎትን በነጻነት ይጠይቁ፡፡ በመሳተዎ ወይም ባለመሳተፍዎ ምንም ዓይነት ችግር አይደርስብዎትም፡፡

1. **የጥናቱ ዓላማ፡** **የዚህ ጥናት ዓላማ ከላይ የተጠቀሰውአገልግሎት ላይ ችግር በሚፈጥሩ ነገሮች ላይ መረጃ ማሰባሰብ ነው፡፡ ጥናቱ ችግሮችን በመለየት እናቶች አገልግሎቱን እንዲጠቀሙ መፍቴሄዎችን ማፈላለግ ነዉ፡፡**
2. **መረጃ የሚሰበሰብበት መንገድ፡** **እርሰዎ በአጋጣሚ የጥናቱ ተሳታፊ እንዱሆኑ ተጠይቀዋል፡፡ ጥናቱ የሚሰራዉ እርሰዎን ቃለ-መጠይቅ በማድረግ ነዉ፡፡**
3. **በጥናቱ በመሳተፍዎ የሚያገኙት ጥቅም፡** **ተሳታፊ በመሆንዎም የተለየ ጥቅም አይደረግልዎትም፡፡ ነገር ግን ለእኛ የርስዎ መረጃ ትልቅ ግብዓት ይሆንልናል፡፡**
4. **ማካካሻ፡** **በዚህ ጥናት በመሳተፍዎ ምንም አይነት የማካካሻ ጥቅም አያገኙም፡፡**
5. **መረጃዎ በሚስጥር እንዴት እንደሚያዝ፡** **የርሰዎን ማንነት የሚገልጹ ግላዊ መረጃዎች ምስጢራዊነትም የተጠበቀ ነዉ፡፡ስምዎና የእርስዎን ግለሰባዊ ማንነት የሚገልጽ መረጃ በመጠይቁ ላይ አይገለጽም፡፡ የርስዎን መረጃ ከጥናቱ ባለቤት በቀር ማንም ሰው እንዳያው ይቆለፋል፡፡ ኮምፒተር ላይ ከገባ ኮምፒተሩ በ ፓስ ዎርድ ይዘጋል፡፡**
6. **በመሃል ስለማቁዋረጥ፡** **የርስዎ ተሳትፎ ሙሉበሙሉ በፈቃደኝነት ላይ የተመሰረተ ነው፡፡ ጥናቱን በማቁዋረጥዎ ምንም ዓይነት ጉዳትም ሆነ ቅጣት አይደርስብዎትም፡፡ ስለዚህ መረጃ መደበቅ፣ ትብብር ማቁዋረጥ ሙሉ መብት አለዎት፡፡**

ሌላ ላረጋግጥልዎት የምፈልገው ይህ ጥናት በአዲስ አበባ ዩኒበርሲቲ የነርሲንግ ትምህርት ክፍል የስነምግባር ኮሚቴ ታይቶ ፈቃድ አግኝቷል፡፡

Annex six: Amharic version of consent form

የፈቃኝነት መጠየቂያ ቅጽ

ስለ ጥናቱ ዓላማ አጠቃላይ ሁኔታ ገለጻ ተደርጎልኝ በደንብ ተረድቸዋለሁ፡፡ በተጨማሪም በማነኛዉም ሰዓት ከጥናቱ ተሳተፎ ራሴን ማግለል እንደምችል ተረጋገጦልኛል፡፡ ስለዚህ ዝርዝር የጥናቱን ጠቀሜታ ስለተገነዘብሁ በጥናቱ ለመሳተፍ ፈቃደኛ ሁኛለሁ፡፡

የጠያቂዉ ስም……ፊርማ……ቀን…….
የተቆጣጣሪዉ ስም……ፊርማ…….ቀን……

Annex seven: Amharic versions of questionnaires

መጥይቆች

ክፍል አንድ፡ግለሰባዊ መረጃዎች

ተ.ቁ	ጥያቄዎች	አማራጮች	እለፉ	ምልክት
101	እድሜዎ ስንት ነዉ?	1. 15-19 ዓመት 2. 20-24 ዓመት 3. 25-29 ዓመት 4. 30-34 ዓመት 5. 35 ዓመትና ከዚያ በላይ		
102	የትምህርት ደረጃዎ እስከ ስንት ነዉ?	1. አልተማርሁም 2. ማንበብናመፃፍ እችላለሁ 3. የመጀመሪያ-ደረጃ ትምህረት ያጠናቀቀች 4. ሁለት-ደረጃ ትምህረት ያጠናቀቀች 5. ከፍተደረጃ ትምህረትያጠናቀቀች 89. ሌላ ካለ ይገለፁ.....		
103	ብሄርዎ ምንድን ነዉ?	1. አማራ 2. ኦሮሞ 3. ትግሬይ 89.ሌላ ካለ ይግለፁ.....		
104	ስራዎ ምንድን ነዉ?	1. የቤት እመቤት 2. የቤት ሠራተኛ 3. ተቀጣሪ 4. ነጋዴ 5. ተማሪ 89. ሌላ ካለ ይግለፁ.....		
105	የሚከተሉት ሀይማኖት ምነድን ነዉ?	1. ኦርቶዶክሥ 2. ሙሥሊም 3. ፕሮቴሥታንንት 99.ሌላ ካለ ይግለፁ.....		
106	የጋብቻዎ ሁኔታእዴት ነዉ?	1. ባለትዳር 2. የተፋታች 3. በተለያየ ቦታ የሚኖሩ 4. የሞተባት 5. ያላገባች		
107	በወር የሚያግኙት አማካኝ	1. ከ500 ብር በታች		

	ገቢ ምን ያህል ነዉ?	2. ከ500-1000ብር 3. ከ1000-1500ብር 4. ከ1500-2000ብር 5. ከ2000-2500ብር 6. 2500ና ከዚያ በላይ		

ክፍል ሁለት፡የርግዝናና የወሊድ ታሪክ

201	የመጀመሪያ ልጀምትን ሲወልዱ እድሜዎ ስንት ነበር?	1. ከ19 አመት በታች 2. ከ19 አመትና ከዚያ በላይ		
202	ስንት ጊዜ አርግዘዋል?	1. አንድ ጊዜ 2. ሁለት ጊዜ 3. ሶስት ጊዜ 4. አራትና ከዚያ በላይ		
203	ስንት ጊዜ ወልደዋል?	1. አንድ ጊዜ 2. ሁለት ጊዜ 3. ሶስት ጊዜ 4. አራትና ከዚያ በላይ		
204	በመጨረሻ የወለዱት ልጅ ስንትኛዎት ነዉ?	1. የመጀመሪዩ 2. ሁለተኛ 3. ሶስተኛ 4. አራተኛ 5. አምስትና ከዚያ በላይ		
205	በቀዶጥገና ስንት ልጅ ወልደዋል?	1. ምንም 2. አንድ 3. ሁለት 4. ሶስትናከዚያ በላይ		
206	በብልት በመቆረጥ ስንት ልጅ ወልደዋል?	1. ምንም 2. አንድ 3. ሁለት 4. ሶስትናከዚያ በላይ		

ክፍል ሶስት፡ ድህረ-ወሊድ አጠቃቀም ጥያቄዎች

301	የመጀመሪያ ልጀዎትን የት ነዉ የወለዱ?	1. ጤና ተቋም 2. ቤት	⇨	304
302	ድህረ-ወሊድ አገልግሎት የመጠቀም እቅድ ነበረዎት?	1. አዎ 2. አልነበረኝም		
303	ድህረ-ወሊድ አገልገሎት ለማን ይጠቅማል ብለዉ ያስባሉ?	1. ለእናቶች ጤና 2. ለህጻናት ጤና 3. ለሁለቱም 88. አላዉቅም		
304	የመጨረሻ ልጅዎን ሲዎለዱ ደህረ-ወሊድ አገልግሎት ተጠቅመዉ ነበር?	1. አዎ 2. አልተጠቀምሁም		

305	ጥያቄ 306 መልስዎ አዎ ከሆነ የተጠቀሙት በምን ጊዜ ዉስጥ ነዉ?	1. በአራት ሠዓት ዉስጥ 2. ከ4-23 ሠዓት ዉስጥ 3. 1-2 ቀን 4. 3-41 ቀን		
306	በዚህ ወቅት ስንት ጊዜ ክትትል አደረጉ?	1. አንድ 2. ሁለት 3. ሶስት 4. አራትና ከዚያ በላይ		
307	ከየትኛዉ ጤና ተቋም ነዉ ይህን አገልገሎት ያገኙት?	1. ሆስፒታል 2. ጤና ጣቢያ 3. ክሊኒክ 89. ሌላ ካለ ይግለፁ…..		
308	ለምንድን ነዉ ይህን ተቋም የመረጡት?	1. ቅርብ ስለሆነ 2. ምንም ዓይነት ክፍያ ስለለለዉ 3. ስራተኞቹ ጥሩ ስበእና ስላላቸዉ 4. ተስማሚ የስራ ሰዓት ስላለዉ 5. ጥራት ያለዉ አገልግሎት ስለሚሰጥ 89. ሌላ ካለ ይግለፁ…..		
309	ድህረ-ወሊድ አገልግሎት እንዲጠቀሙ ያነሳሳዎት ምንድን ነዉ?	1. የጤና ችግር 2. መደበኛ አገልግሎት ለመከታተል 3. ክትባት አገልግሎት ለማግኘት 89. ሌላ ካለ ይግለፁ…..		
310	ድህረ-ወሊድ አገልግሎት ሲከታተሉ ትመህርት ተሰጥቶዎት ያዉቃል?	1. አዎ 2. አያዉቅም		
311	ለጥያቄ 312 መልስዎ አዎ ከሆነ በምን እርስ ላይ?	1. በቤተሰብ ምጣኔ 2. በህጻናት ንፅጎና አጠባብቅ 3. በጡት ማጥባት 4. በክትባት 88. አላስታዉስም 89. ሌላ ካለ ይግለፁ…..		
312	ድህረ-ወሊድአገልግሎት ለመዉሰድ የሚያጠፉት ጊዜ ትክክል አይደለም ይላሉ?	1. አዎ፣ ሁል ዚዜ 2. አይደለም 88. አላዎቅም		
313	ድህረ-ወሊድ አገልግሎት ለማግኘት ምን ያህል ጊዜ	….ሰዓት		

	ይጠብቃሉ?			
314	ድህረ-ወሊድ አገልግሎት እንዳይጠቀሙ የሚያደርጉ ምክናየቶች ምን ናቸዉ?	1. የእዉቀት ማነስ 2. ጤናማ መሆን 3. ከአቅም በላይ ክፍያ መኖር 4. በርቀት ምክናየት 5. በስራ መጨናነቅ 6. ለአገልግሎት ረዥም ጊዜ መጠበቅ 7. ባህላዊ ተጽእኖ/ዉሳኔ ሰጪነት ተጽእኖ 8. ጥራት የሌለዉ አገልግሎት መኖር 9. የሀይማኖት ተጽኖ መኖር 10. ባለሙያዎች ተመልሳችሁኑ ስለማይሉን 11. ያለምንም ምክናየት 99. ሌላ ካለ ይግለፁ…..		
315	ድህረ-ወሊድ አገልግሎት ለመጠቀም በራስዎ ይወስናሉ?	1. አዎ 2. አልወስንም		401
316	ጥያቄ 315 መልስ አልወስንም ከሆነ ማን ነዉ የሚወስንልዎ?	1. የሀየማኖት መሪ 2. ባል 3. ቤተሰብ 99. ሌላ ካለ ይግለፁ…..		
317	ባለቤትዎ ስለድህረ ወሊድ ያለዉ አመለካክት እንዴት ነዉ?	1. አወንታዊ 2. አሉታዊ 88. አላዉቅም		
318	ሌሎች ሰዎች እስዎን ወክለዉ እንዲወስኑ የሚያደረጋቸዉ ምክናየት ምነድን ነዉ?	1. ባህላዊ ተጽእኖ 2. ሀይማኖታዊ ተጽእኖ 3. ሌላ ካለ ይግለፁ…….		

ክፍል አራት፡ እናቶች ስለ ድህረ-ወሊድ አገልግሎት ያላቸዉ ግንዛቤ

401	ጤናማ እናት በድህረ-ወሊድ ወቅት ድህረ-ወሊድ አገልግሎት ማግኘት አለባት ወይ?	1. አዎ 2. የለባትም		403
402	ለጥያቄ 401 መልስ አዎ ከሆነ በየትኛዉ ጊዜ ዉስጥ መዉሰድ አለባት?	1. በወለደች በአንድ ሰዓት ዉስጥ 2. በወለደች በሁለትቀን ዉስጥ 3. በወለደች		

		ከስድስት ሳምንት በኋላ		
403	በድህረ-ወሊድ ወቅት የ ሚሰጡትን አገልግሎቶች ያዉቃሉ?	1. አዎ 2. አላዉቅም		
404	ጥያቄ 403 መልስ አዎ ከሆነ፣የሚሰጡት አገልግሎቶች ምንድን ናቸዉ?	1. የቤተሰብ ምጣኔ አገልግሎት 2. የህጻናት ንጽህና አጠባበቅ 3. ጡት አጠባብ 4. ክትባት 88.አላዉቅም 99. ሌላ ካለ ይግለፁ		
405	ህፃን ከተወለደ በኋላ መታጠብ ያለበት ጊዜ መቼ ነዉ?	1. ወዲያዉኑ 2. በስድስት ሰዓት ዉስጥ 3. ከ7-23 ሰዓት ዉስጥ 4. ከ24 ሰዓት በኋላ 88. አላዉቅም		
406	ህፃን ጡት መጥባት መጀመር ያለበት መቼ ነዉ?	1. ወዲያዉኑ እንደተወለደ 2. በተወለደ ከ አንድ ሰዓት በታች 3. በተወለደ በ2 እና በ6 ሰዓት መካከል 4. በተወለደ በ7 እና በ14 ሰዓት መካከል 5. በተወለደ በ2 እና በ3 ቀን መካከል 6. በተወለደ ከ3 ቀን በኋላ		
407	በድህረ-ወሊድ ወቅት የሚከሰቱ አደገኛ ችግሮችን ያዉቃሉ?	1. አዎ 2. አላዉቅም		
408	ጥያቄ 407 መልስ አዎ ከሆነ፣ጥቂቶችን ጥቀሱ?	1. ደም ማነስ 2. በብልት ፈሳሽ መፍሰስ 3. የራስ ምታት 4. ድብርት 89. ሌላ ከለ ይግለፁ		

ክፍል አምስት፣ የደህረ-ወሊድ አገልግሎት አሰጣጥ ጥራት(ልተጠቃሚዎች ብቻ)

501	የጤና ባለሙያዎች ጥሩ ስብዕና የተላበሱ ናቸዉ ወይ?	1. አዎ 2. አይደሉም		
502	በጤና ተቋሙ ገመናን ያለመሸፈን ችግር አለ ብለዉ ያስባሉ?	1. አዎ 2. አላስበም		
503	ስለ ድህረ-ወሊድ አገልግሎት ጥራት ያለዎት ስሜት እንዴት ነዉ?	1. ጥሩ 2. አርኪ 3. መጥፎ		
504	በጤና ተቋሙ በሚሰጠዉ የድህረ-ወሊድ አገልግሎት ይተማመኑበታል ወይ?	1. አዎ 2. አልተማመንበትም 88. አላዉቅም		
505	የጤና አገልግሎት የሚሰጡ ሰራተኞችን ባህሪ እንዴት ነዉ?	1. በጣም ጥሩ 2. ጥሩ 3. መጥፎ		
506	ከበተትዎ እስከ ጤና ተቋሙ ያለዉ ርቀት ምን ያህል ነዉ?	1. ከ1.5ኪ.ሜ በታች 2. ከ1.5-5ኪ..ሜ 3. ከ5ኪ..ሜ በላይ		
507	ከቤትዎ እስከ ጤና ተቋም ለመድረስ ሰዓቱ ስንትነዉ?	……ሰዓት		