

Prevalence and Associated Factors of Postnatal Care Utilization Mohamed Akibu, Debre Birhan University

Abstract

Postnatal period is a period which starts immediately after the completion of delivery up to the next six weeks or 42 days. Over 60% of maternal deaths occur in the first 48 hours after delivery. Postnatal care could prevent the great majority of maternal and child morbidity and mortality. Despite its importance, this period is generally the most neglected in developing countries. Hence, considering the significance of this period and paucity of information in North Showa, the study was designed to assess the prevalence and factors affecting PNC service utilization among child bearing age women who gave birth in the past two years in Debre Birhan Town, Amhara National Regional State, Ethiopia. To assess the prevalence and factors affecting PNC service utilization in Debre Birhan Town among mothers who gave birth in the last 24 months, 2007 E.C

Descriptive Community based cross-sectional survey was conducted to assess the prevalence and factors affecting postnatal care service utilization in Debre Birhan town from 10 April - 25 April 2015 G.C. The data were collected by structured questionnaire and interview. Cluster sampling method was employed to select 273 study participants. Bivariate and Multivariate analysis were used to identify risk factors associated with outcome variables; and a variable with P value of <0.05 was considered statistically significant.

The findings of this study revealed that postnatal care coverage was 23.9% and previous practice of Postnatal care (AOR , 95% CI : 5.19 (1.944 -13.897)), Mode of delivery AOR, 95% CI: 98.79 (2.38 - 32.46)), Information about PNC (AOR. 95%, CI : 5.116 (1.67 - 15.67)) were found as predictors for Postnatal care service utilization in the study area. Generally the coverage of postnatal care is slightly higher compared with studies conducted in recent years. Lack of awareness, feeling of being healthy, perception of the care as not necessary, and being busy were the primary reasons for not seeking postnatal care services. Mode of delivery, information about postnatal care, autonomy on health care service and being counseled for PNC were the main factors which are found to affect postnatal care utilization.

Key works: *Postnatal Care Utilization, Service, Mode of Delivery, Information*

1. Introduction

1.1. Background

Postnatal Period is a time that begins immediately after the completion of delivery and extends to six weeks of postpartum. Particular attention is given to the first **48** hours of delivery during which higher rate of maternal and newborn mortality and morbidity occur. The postpartum care visit is an important opportunity to assess the physical and psychosocial health of the mother. This visit may also be utilized to counsel mothers on infant care and family planning, encourage breast feeding, identify and treat medical conditions common to the postpartum period, and manage preexisting or emerging chronic conditions.

The advantage of postnatal care visit for the mothers is the prevention of adverse postpartum complications, because majority of obstetrical and newborn complications occur few hours and days after delivery. Evidences state that almost 40% of women experience complication after delivery and an estimated 15% of these women experience potentially life-threatening problems. In addition to this 50-70% of maternal deaths also occur during this period

regardless of the onset of the problems. Thus, it generally highlights the need for essential postnatal care service once the mothers give birth.

The importance of this PNC service is further amplified by the presence of unwanted cultural practices on the newborn and the mother herself during this period. Some of these include, cold bath, discarding colostrums, applying butter in the mouth of the newborn, isolation of the mother for some period of time after delivery and preventing bathing during this period and other associated unwanted practices. These and other factors could increase the chance of maternal morbidity. However, all of these conditions could be minimized and prevented if mothers get access to essential PNC service.

PNC services can be delivered at a health facility, through home visits by health workers, or through a combination of care in facilities and at home. In most developing countries, however, PNC may only occur through home visits because geographic, financial, and cultural barriers typically limit care outside the home during the early PNC period. Strategies to provide PNC within a country should be modified to target the hard-to-reach, marginalized, and poorest groups of women and newborns to increase the coverage of this service. Despite the fact that PNC has significant role in improving the maternal and child health, still there is a gap in utilizing this important service due to a variety of associated conditions.

1.2. Statement of the Problem

PNC period is a critical time that determines the wellbeing and survival of the mother and her baby as the most risky complications for both are more likely to occur in this period. Therefore, lack of care during this period may result in death or disability. Evidences strength this assertion since over 60% of maternal deaths occur in the first 48 hours after child birth, $\frac{3}{4}$ of newborn deaths in the first week; and two-thirds of these occur in the first 24 hours mainly due to asphyxia, sepsis and prematurity. Therefore, this phenomenon highlights the need for quality basic maternal and newborn care after delivery.

The effect of absence of Postnatal on the mother is shown that half of all postnatal maternal deaths occur during the first week after the baby is born. The majority of these maternal deaths occur during the first 24 hours after childbirth. The first leading causes of maternal mortality worldwide is hemorrhage which accounts for around 27% of all direct obstetric causes, the majority of which occur during Postnatal period. Sepsis and infection also account for 11% of all causes; virtually all of these happen after child birth.

These Postnatal periods also have a significant effect on survival of the newborns, which is evident. Each year, at least 6 million African babies die in the first 28 days of life, among those, 850,000 die during the first week. About 38 % %of babies in sub-Saharan Africa also die of infections. At least one in four child deaths occur during the first month. Majority of these deaths and morbidity occur during the first 42 days after delivery, which significantly indicates the need for postnatal care service.

It has been estimated that if routine PNC and curative care in the postnatal period reached to 90% of babies and their mothers, 10 to 27% of newborn deaths could be averted. If PNC coverage reaches high, it could prevent majority of maternal deaths and save up to 310,000 newborn lives a year in Africa.

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.

This was found to be evident by a recent analysis of Demographic and Health Surveys in 23 African countries. Reports suggest that approximately one-third of women in sub-Saharan Africa give birth in facilities, and no more than 13 % receive a postnatal care visit within two days of delivery due to different reasons.

Even though PNC has such impact on maternal and child health, its coverage is extremely low, especially in Africa. The recent DHS survey of African countries indicated that in Eritrea, 92 % of women giving birth at home received no PNC within the first six weeks. Similarly, 85% and 70% of women giving birth at home in Mali and Rwanda respectively received no PNC at all.

According to the mini Ethiopian Demographic and Health Survey (EDHS) data in 2014, the coverage of PNC service is extremely low. Only 13% of women receive PNC as recommended. Among these women 8% were examined within 4 hours of delivery, 2% within 1-2 days and 5% within 3-41 days of delivery. However, there are no adequate studies on the problem. Therefore, this study aims to identify factors that will hinder PNC service utilization in the study area.

1.3. Objective of the Study

1.3.1. General Objective

To Assess the prevalence and factors affecting PNC service utilization in Debre Birhan Town among mothers who gave birth in the last 24 months, 2007 E.C.

1.3.2. Specific Objectives

- To determine the prevalence of PNC service in Debre Birhan Town among mothers who gave birth in the last 24 months, 2007 E.C,
- To find out obstetric factors affecting PNC service utilization in Debre Birhan Town among mothers who gave birth in the last 24 months, 2007 E.C
- To identify socio-demographic factors affecting PNC service utilization in Debre Birhan Town among mothers who gave birth in the last 24 months, 2007 E.C

1.4. Significance of the Study

Studies show that the coverage of PNC follow-up is too low; and the factors affecting utilization of PNC is not yet well identified. Therefore it's the right time to deal with the issues related to PNC. So the study primarily intends to identify the prevalence and factors affecting utilization of PNC service in the study area. The result of this study may contribute an input for further planning and implementation of postnatal care services. The findings of the survey will help various governmental and Non-governmental organizations that work on maternal and newborn health to take proper action. Further, it may be used by our college, hospital staffs, woreda and zonal administrators and other concerned bodies. Among others, the results will contribute towards raising awareness about the status of PNC service utilization, and related factors that affect the utilization of these services in the study area. Moreover, the study may also use as a baseline information for other studies conducted in the same topic.

2. Methodology

2.1. Study Area and Period

The study was conducted in Debre Birhan Town which is located in North Showa Zone of the Amhara National Regional State, about 130 kilometers North East of Addis Ababa on the highway to Dessie. The Town is divided into 9 kebeles according to administrative classification with estimated population size of 84, 944, of which 41, 248 (48.6%) were males and 43, 696 (51.4%) were females. Among the females, 26,876 institute at reproductive age (15-49) group. There are one referral public hospital, one private hospital, two Health Centers, 5 Health Posts and 15 private clinics in the Town. The survey was conducted from 10 April - 25 May 2015.

2.2. Study Design

Community-based cross-sectional surveys were employed to conducted research on the assessment of prevalence and factors affecting postnatal care service utilization in Debre Birhan Town in April 2015.

2.3. Populations

2.3.1. Source Population

- All reproductive age group women living in Debre Birhan Town, who gave birth in the last 24 months,

2.3.2. Study Population

- Women's living in Debre Birhan Town, kebele 02, 05 and 06 who gave birth in the last 24 months.

2.4. Sample Size Determination

The sample size required for this study was calculated using the following single population proportion formula.

$$n = \frac{Z (\alpha / 2)^2 p (1 - P)}{D^2}$$

P = Proportion of PNC service (0.202)

z (α / 2)² = Confidence interval (1.96)

D = Margin of error (0.05)

Proportion of PNC service is assigned to be 20.2%, which is taken from reference [15], confidence interval of 95% and margin of error is taken 5 %.

$$n = \frac{(1.96)^2(0.202)(1 - 0.202)}{(0.05)^2}$$

$$n = \underline{248}$$

➤ when we consider 10% non-respondent rate

$$n = 248 + NR$$

$$n = 248 + 10\% \text{ of } 248$$

$$n = 248 + 25$$

$$n = \underline{273}$$

2.5. Sampling Technique and Sampling Procedure

The Town is divided into nine kebeles according to administrative classification. Cluster sampling methods were used to select the study units because the kebeles have almost similar socio-demographic status. First, each kebele was grouped into 9 clusters and cluster 02, 05 and 06 were taken using lottery method.

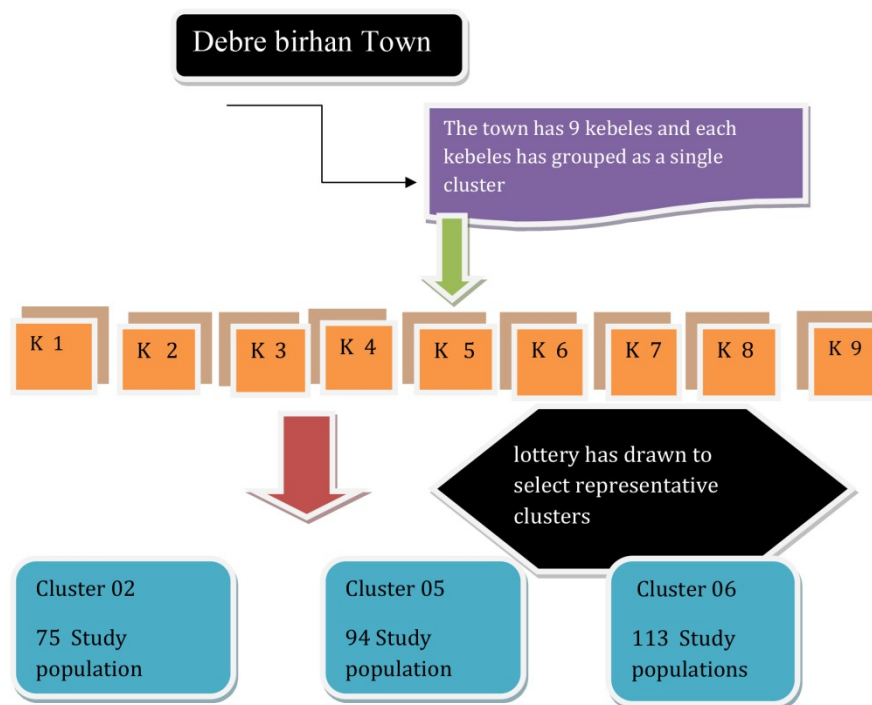


Figure 1: Diagrammatic representation of the sampling procedure

The numbers in each box represent the total number of mothers who gave birth in the last two years in each kebele.

2.6. Inclusion and Exclusion Criteria

2.6.1. Inclusion Criteria

- Women who gave live birth within the last 24 months,
- Women who are volunteers to participate in the study.

2.6.2. Exclusion criteria

- Women who don't respond due to severe medical and mental illness,
- Women who gave still birth or whose baby died after delivery.

2.7. Data Collection Procedure

Quantitative data collection method was employed to collect the data on factors affecting PNC utilization in Debre Birhan Town. Initially all the data collectors were given orientation on how to collect the data. Then, the data collection was done through interviews using structured questioner from 10 April 2015 - 25 May 2015 E.C

The questioner was pretested on kebele 09 using 5% of the sample size.

Those respondents who were not available at the time of data collection were re-visited to their home until final day of data collection and in those households who had more than one study population all of them were included in the study.

2.8. Variables

2.8.1. Independent Variables

- I. Socio demographic characteristics
 - Age,
 - Educational status of the mother and her husband,
 - Occupation,
 - Parity,
 - Income of the house hold,
 - Autonomy.
- II. Practice of maternal health service
 - PNC attendance in previous pregnancy,
 - ANC attendance in current pregnancy,
 - Place of delivery.
- III Information about maternal health services
 - Knowledge of post partum danger sign,
 - Distance from health facility,
 - Information about PNC,
 - Feeling towards PNC,

2.8.2. Dependent Variables

- Utilization of PNC Services,

2.9. Operational Definitions

- **Information about PNC** - Women who have ever heard about the presence of three regular follow up visits after delivery and the services given during visit.
- **Postnatal care** - care was given to a mother for a period of six weeks after delivery.
- **Recommended Postnatal care** – WHO’s standard contact time within one hour after birth, at 2-3 days, 6-7 days and extra contact for those LBW or mothers live with HIV.
- **Postnatal care attendance** - was defined in this study at least one Postnatal visit within the recommended time excluding the first 6 hours of hospital stay and any visit at 6 weeks after delivery.
- **Feeling of PNC** - mothers perceptions about the importance of Postnatal care service;
- **Post delivery local social event** - practice of locally specific ceremonies /cultural actions after delivery which restricts mothers not to leave the house for some period after delivery.

- **Knowledge of post partum danger sign** - a woman is considered knowledgeable about postnatal danger if she mentions at least two danger signs.
- **Autonomy**- Mothers decision making ability towards health service utilization;

2.10. Data Entry and Analysis

All the data were cleaned manually before they were entered to the software. The clean data were entered to Epi info version 4.2 and exported to SPSS version 20 for analysis. The finding of the study is presented in terms of frequency and percentage using appropriate graphs and tables. Bivariate and multivariate analyses were done to check the presence of associated factor for postnatal care utilization.

2.11. Data Quality Control

First the questionnaires were translated into local language. Then consent was taken from the respondents before the interview. The data was collected by principal investigators and its completeness were checked before leaving the house and data also had been checked for its clarity and consistency every day by advisors and principal investigators. The data were entered and analyzed after having an orientation from advisors.

2.12. Ethical Consideration

First ethical approval and clearance letter were obtained from Debre Birhan University, Institute of Medicine and Health Science, and submitted to the selected kebeles of Debre Birhan Town to get permission to conduct the study in the township.

The purpose of the research was explained to the respondents under study; and data was collected after obtaining verbal consent to ensure respondents' willingness for the interview. All collected information is kept confidential and not linked to third party.

2.13. Dissemination of the Study

The final result of this study has been submitted to Debre Birhan University Institute of Medicine and Health Science and presented to the University Community. It will also be disseminated to the zonal and town administrative health bureaus and other governmental and non-governmental organizations that work on maternal and child health service, and will also be published in to one of the international journal.

2.14. Limitation of the Study

Despite the fact that the necessary endeavors were made to minimize or avoid the possible shortcomings of this study, the result should be interpreted in the light of the following unavoidable limitations.

- This study utilized cross-sectional study design which made the findings impossible to establish causal relationship between the outcome and exposure variables.
- Recall bias was more likely since women were asked for events which have already happened within the past two years prior to this study despite the consideration of recent births.
- The study only attempted to cover the urban part of the Town, which makes the findings in applicable to the rural parts of the Town.

3. Results

3.1. Socio-demographic Profile of the Respondents

A total of 259 women of reproductive age with a live birth in the preceding two years prior to this survey were interviewed from three kebeles of Debre Birhan Town with the response rate of 95 %. 91 (35.1%) of the respondents (majority) were found between the ages ranging 25 - 29 years; and their educational status is dominated by diploma holders 59 (22.8%). House wives 83 (32%), followed by government employees 78 (30.1%). House wives got higher scores concerning the occupational status of the respondents. About 210 (80.1%) of the participants were ethnic Amharas; and followers of the orthodox religion were 193 (74.5%) (see Table 1).

Table 1: Socio-demographic Characteristics of the Respondents in Debre Birhan town, Amhara National Regional State, North Showa Ethiopia, 2015

Age	Frequency	Percentage
17 - 24	80	30.9%
25 - 29	91	35.1%
30 and above	88	34 %
Total	259	100 %
Education		
No formal education	40	15.4%
Elementary	53	20.5%
Secondary	58	22.4%
Diploma	59	22.8%
Degree and above	49	18.9%
Total	259	100%
Ethnicity		
Amhara	210	81.1%
Tigre	17	6.6%
Oromo	19	7.3%
Gurage	12	4.6%
Other	1	0.4%
Total	259	100%

Marital Status	Frequency	Percentage
Single	9	3.5%
Married	222	85.7%
Divorced	28	10.8%
Total	259	100%
Religion		
Orthodox	193	74.5%
Muslim	41	15.8%
Protestant	21	8.1%
Catholic	3	1.2%
Other	1	0.4%
Total	259	100%
Occupation		
House wife	83	32%
Merchant	64	24.7%
Employee	78	30.1%
Daily labor	13	5.0%
Student	9	3.5%
Self employee	12	4.6%
Total	259	100%
Husband's education		
No formal education	16	6.2%
Primary school	57	22.2%
Secondary school	39	15.2%
Diploma	76	29.6%
Degree and above	69	26.8%
Total	257	100%
Income of Household		
300 - 1000	60	23.2%
1100 - 2000	71	27.4%
2100 - 5000	102	39.4%
5000 and above	26	10.0%
Total	259	100.0%

3.2. Obstetric History and Health Service Profile of the Respondents

Regarding the ANC status of the study, around 247 (95.4%) participants visited ante natal clinic during pregnancy (see Fig. 3). Among the mothers who utilized ANC, 157 (63.6%) them have visited ANC clinic four times and above in their most recent pregnancy, whereas 40 (16.2%) of mothers went to ANC clinic only two times. Moreover, 54 (21.9%) were given counseling about PNC at the time of their visit (Table 4.). Accordingly, only 8 (3.1%) of the participants gave birth at home whereas 209 (80.9%) women gave birth through SVD. Concerning the birth status of the participants 5 (1.9%) have five and above children. In the cases of previous Postnatal services, about 25 (13.2%) of participants visited Postnatal clinics in their previous pregnancy (Table 2). About their power of decision making on health care service utilization, 145 (54.8%) of the respondents decide by themselves (Fig 2).

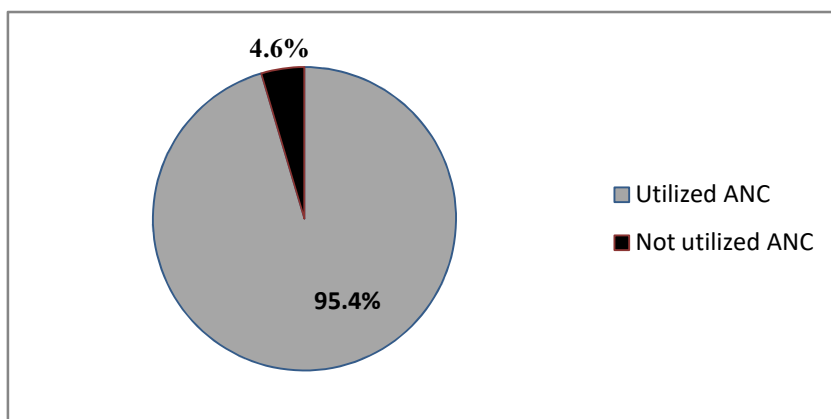


Fig 2: The proportion of ante natal care service utilization among mothers in Debre Birhan, Amhara National Regional State, North Showa Ethiopia 2015.

Table 2: Distribution of obstetric history of the respondents in Debre Birhan town, Amhara regional state, North Showa Ethiopia 2015

No children	Frequency	Percentage
One	79	30.5%
Two - Four	175	67.6%
five and above	5	1.9%
Total	259	100%
Place of delivery		
Health institution	251	96.9%
Home	8	3.1%
Total	259	100%
Mode of delivery		
SVD	204	78.8%
Instrumental	29	11.2%
C/S	26	10%
Total	259	100%
Previous PNC		
Yes	24	12.6%
No	166	87.4%
Total	190	100%
Counseling about PNC		
Yes	54	21.9%
No	193	79.1%
Total	247	100%

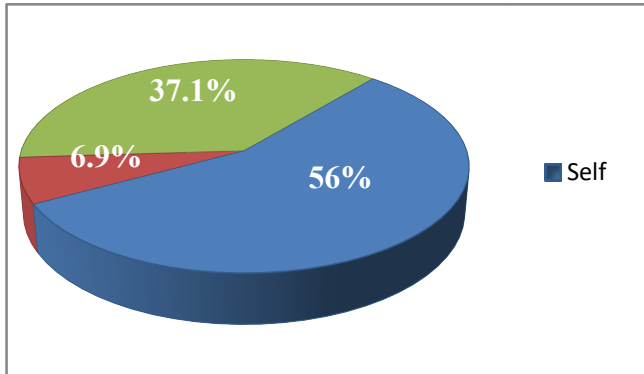


Figure 3: Distribution of mothers' decision making ability on health care service, Debre Birhan town, Amhara National Regional State, North Showa, Ethiopia 2015.

3.3. Postnatal Care Service Utilization and Its Barriers

Of the total respondents, only 62 (23.9%) of the women utilized Postnatal care service in health facilities (hospital and health center, private clinic) under the supervision of skilled health professionals (fig 3). The main reason for those who did not visit health professionals during Postnatal was lack of awareness about the service. This was reported by 143 (73%) of respondents (Fig 4).

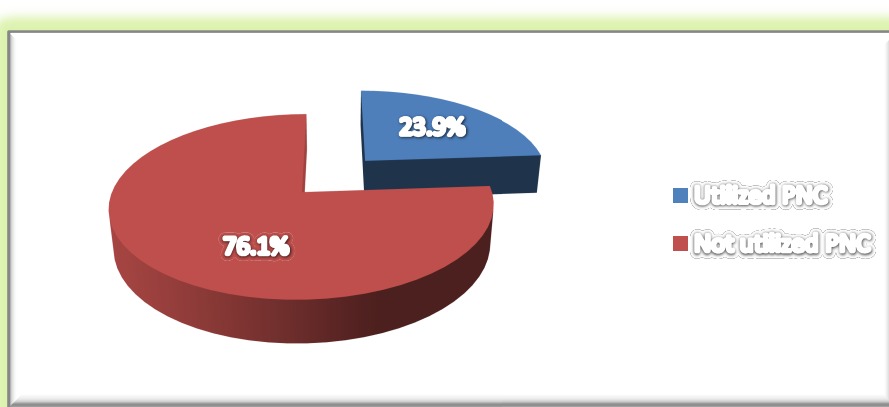


Figure 4: The proportion of postnatal care service utilization among mothers who gave birth in the last 2 years in Debre Birhan, Amhara National Regional State, North Showa Ethiopia 2015.

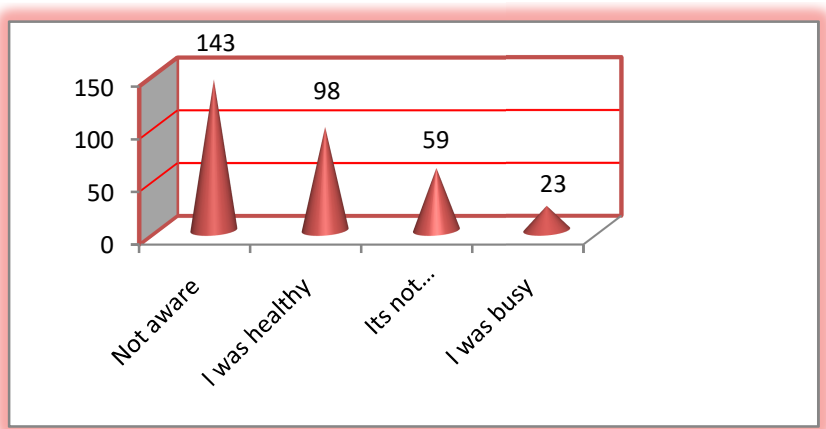


Figure 5: Frequency of Reasons for Postnatal care absent among mothers in Debre Birhan, Amhara Regional State, North Showa Ethiopia 2015

3.4. Information and Feeling of Postnatal Care Service and Postnatal Danger Sign

Majority, 150 (57.9%) of the respondents have never heard about Postnatal care and services given (Fig 5). But about 140 (54.1%) of the mothers believe that having such a care after delivery has a role of improving the health of their baby and themselves. About 200 (77.2%) of the women were able to mention at least two Postnatal danger signs (see Table 3).

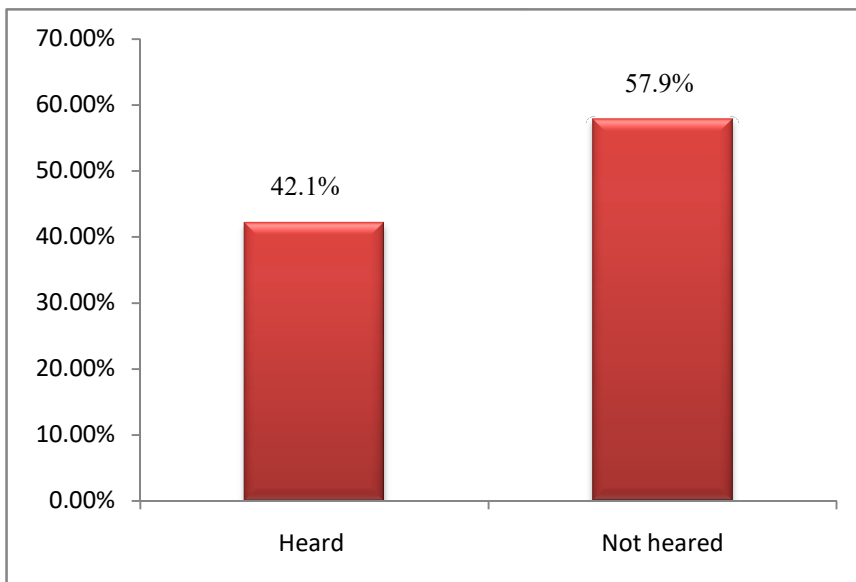


Figure 6: Percentage of Postnatal care service information among mothers of reproductive age group who gave birth in the last 2 years, Debre Birhan, Amhara National Regional State, North Showa Zone, Ethiopia, 2015.

Table 3: Magnitude of mother’s attitude to postnatal care and knowledge of post partum danger sign in Debre Birhan, North Showa, Amhara National Regional State Ethiopia 2015. (N = 259)

Feeling of mothers towards PNC	Frequency	Percentage
Positive	140	54.1%
Negative	38	14.7%
I don't know	81	31.3%
Total	259	100%
Knowledge of post partum danger signs		
Yes	200	77.2
No	59	22.8
Total	259	100.0

3.5. Factors Affecting Postnatal Care Service Utilization

In bivariate logistic regression, educational status of the mother (COR 6.75 , 95% CI :(2.079 - 21.919)) , being final decision maker on health care service (COR 2.873, 95% CI: (1.452 - 5.684)), mothers who agreed on the benefit of Postnatal care (COR 5.69, 95%, CI (2.435 - 13.039) , presence of information about the Postnatal care service (COR 7.64, 95% CI (3.921 - 14.902)), mode of delivery of their last baby (COR 10.50, 95% CI: (4.238 - 26.015)), mothers who have counseled about PNC (COR 7.67 , 95% CI:(5.456 - 23.561)) and presence of Postnatal care visits in previous pregnancy (COR , 95% CI: 11.969 (4.540-31.556)) were found to be statistically significant with Postnatal care service utilization, whereas, in multivariate logistic regression model, mode of delivery , previous attendance of Postnatal care service and mothers information about the service and counseling regarding PNC during ante natal care were the factors associated with utilization of Postnatal care service.

Mode of delivery showed a strong statistical association with utilization of postnatal care service. Mothers who gave birth through cesarean section were about nine times (AOR= 8.784, 95% CI: (2.377 - 32.46)) more likely to use Postnatal care service than those who gave birth vaginally. Postnatal care service utilization also increased with women who have information of this service. The analysis of this survey again showed that mothers who have ever heard about this service were about five times more likely to use Postnatal care service than who do not know about this service (AOR =5.197, 95% CI : (1.944 - 13.87)). Similarly, the odds of having previous practice of postnatal care visit increased the chance of utilizing this service by about five fold (AOR = 5.116, 95% CI: (1.67 - 15.67)). Mothers who have received antenatal counseling about the need and importance of PNC were 3 times to seek PNC than mothers who don't (AOR = 3.4, 95% CI: (1.73 - 17.35) (see Table 4).

Table 4: Bivariate and Multivariate Analysis of Associated Factors with PNC

Variable	Utilized PNC		P Value BLR	Crude OR 95% CI	P Value MLR	Adjusted or 95% CI
	YES No (%)	NO No (%)				
Educational status						
No formal education	4 (10)	36 (90)	1	1	1	1
Elementary school	10 (18.9)	43 (81.1)	.243	2.09 (.605 - 7.241)	.572	.593 (.096 - 3.568)
Secondary school	10 (17.2)	48 (82.8)	.319	1.87 (.544 - 6.463)	.524	.552 (.089 - 3.439)
Diploma	17 (28.8)	42 (71.2)	.031	3.64(1.123 - 11.816)	.957	.954 (.175 - 5.203)
Degree and above	28 (57.1)	21 (42.9)	0.01**	6.75(2.079 - 21.919)	.897	1.122 (.198 - 6.341)
Information about of PNC						
Heard about PNC	48 (44)	61 (56)	< .001*	7.64 (3.921 - 14.902)	.001**	5.19 (1.944 - 13.897)
Not heard about PNC	14(9.3)	136(90.7)	1	1	1	1
Mode of delivery						
SVD	38(17.6)	168 (82.4)	1	1	1	1
Instrumental	8 (27.6)	21 (72.4)	.205	1.778 (.730 - 4.331)	.418	1.646 (.493 - 5.497)
Caesarian section	18(69.2)	8 (30.8)	.000*	10.50 (4.238 - 26.015)	.001**	8.79 (2.38 - 32.46)
Autonomy						
Self	45 (31)	100 (69)	.002*	2.873 (1.452 - 5.684)	.373	1.628 (.558 - 4.753)
Family	4 (22.4)	14(77.8)	.348	1.824 (.520 - 6.403)	.150	3.888 (.613 - 24.673)
Both husband and wife	83(13.5)	13 (86.5)	1	1	1	1
Feeling of PNC						
Positive	49 (35)	91 (65)	.000**	5.69 (2.435 - 13.039)	.124	2.439 (.783 - 7.597)
Negative	6 (15.8)	32 (84.2)	.250	1.98 (.617 - 6.365)	.728	1.35 (.248 - 7.354)
Neutral	7 (8.6)	74 (91.4)	1	1	1	1
Previous PNC						

Yes	17(70.8)	7 (29.2)	<.001**	11.969 (4.540-31.556)	.004*	5.116 (1.67 - 15.67)
No	28(16.9)	138 (83.1)	1	1	1	1
Counseling About PNC						
Yes	45(83.3)	9 (16.7)	.001**	7.67 (5.456 - 23.561)	.002 *	3.47 (1.73 - 17.35)
No	7 (3.7)	186(96.3)	1	1	1	1

1 - Reference variable * P < 0.05 - significant ** P < or = 0.01

4. Discussion

This community-based cross-sectional study with the objective of the assessment of prevalence and factors affecting utilization of postnatal care services was conducted in Debre Birhan town, North Showa Zone, Amhara National Regional State Ethiopia. It assessed the level of utilization and the exposure variables impacting postnatal care service utilization.

Evidence from the present study indicated that postnatal care service utilization in Debre Birhan Town is 23.9%. This is very low. Studies conducted in Palestine, Nepal and Uganda revealed that the postnatal care service utilization was 30%, 34% and 58%, respectively, which were relatively higher as compared to the current study. The possible reason for this gap could be differences in socio-demographic characteristics of the study participants and the population across the country. Educational status, wealth quintile and access to health care services in the countries mentioned above are better as compared with our study area.

In contrast, the result of the current study is higher than the report of the 2014 Mini EDHS whereby only 13% of the respondents utilized postnatal care service. Also similar study in Abi-Adi town, Tigray Regional State, Ethiopia in 2014 showed that only 11.3% of women received postnatal care service. Another study conducted in the same region of Jebitenan district shows that only 20.2% of mothers utilized the service. These differences may be attributed to the time gap and that there could be improvements in awareness, access and utilization of health care services through time. Similarly the difference could also be due to variation in locations. Our study was conducted in urbanized kebeles of the Town which has relatively better opportunity to access health care service information and practices.

Among the predictors which have been identified to affect utilization of PNC, mode of delivery was the main factor. Mothers who gave birth through caesarian section are more likely to visit postnatal clinics than vaginal birth. This finding is strongly similar with results found in Cambodia by Cambodia Demographic Health Survey. This might be because of the fact that having caesarian operation for different indications may likely increase women's perceived susceptibility and severity to different post operative complication to themselves as well as their child, so this could force them to visit the Postnatal clinic after delivery .

Mothers who have been counseled to comeback for postnatal care have shown better practice of PNC compared with mothers who didn't receive advice from health professionals about the service. This study revealed that mothers who obtained counseling about PNC were three times more likely to attend PNC when compared with their counterparts. This finding is in agreement with findings from Abi-Adi town and Malawi. This could be due to

the fact that mothers who have received counseling are likely to have a positive attitude and good level of knowledge about the service which eventually increase their seeking behavior of this service.

5. Conclusion and Recommendation

5.1 Conclusion

This study was conducted to assess the prevalence and factors associated with postnatal care service utilization among mothers who gave birth in the past two years prior to this survey. The finding of this study revealed that level of postnatal care service utilization is still alarmingly limited even though relatively higher results were registered as compared to the previous evidences.

The main reasons that made mothers not to use postnatal care service were lack of awareness about the service, feeling of being healthy (no reason to go back to health institution after delivery since there is no feeling of illness), being busy with many social and household tasks after delivery, and also a belief that postnatal care service is not necessary.

Based on the survey findings, educational status of the mother, final decision making on health care service utilization, mode of delivery, previous practice of postnatal care service, positive feeling towards postnatal care service, having received counseling and information about postnatal care service were found to be associated with utilization of postnatal care service.

5.2 Recommendation

Based on the findings of this study, the following recommendations were made:-

- This study showed that significant proportion of the mothers did not attend postnatal care service mainly due to lack of awareness. Therefore, health development stake holders, working in area of maternal health should strength the provision of information and education about this service.
- The regional plans need to focus on improving maternal decision-making capacity on health care service through education, awareness creation and other different strategies.
- The Town's Health Bureau should promote different strategies that help women to have adequate level of information and practice about postnatal care service.
- The Town's Hospital and Health centers should promote about the need for postnatal service utilization after delivery, while women initially receive antenatal care and delivery service
- Midwives and other health professionals working on the area of maternal health, better provide adequate counseling regarding Postnatal care service

Reference

American Academy of Pediatrics and American College obstetricians and Gynecologists, in Guidelines for Prenatal Care, pp. 170–171, AAP, Elk Grove Village, Ill, USA; ACOG, Washington, DC, USA, 2007 6th edition.

Annie M., et al., Strengthening postnatal care service, including post partum's family planning in Kenya, Journal of Medicine June 2009.

- Cambodia demographic and health survey, early postnatal care and its determinants 2013.
- Charlotte Warren, Pat Daly, Lalla Toure, Pyande Mongi, Postnatal care, Emanuel B (eds), Postnatal care and opportunities for African new born 2008.
- Digambar A. and Sahoo H. Factors influencing utilization of maternal health care services in Uttarakhand, India: *Etho Med* 2012; 5(3).
- Hailemariam A, Hiruy A, Yohannes A., prevalence and factors associated with Postnatal care utilization in, *international journal of pharmaceutical and biological sciences fundamentals*, Abi-Adi Town, Tigray, Ethiopia 2014: vol 1
- Hossain J, Ross SR The effect of addressing demand for as well as supply of emergency obstetric care in Dinajpur, Bangladesh 2010. *Int J Gynaecol Obstet* 92.
- [Http://www.biomedcentral.com/1472-6874/14/19](http://www.biomedcentral.com/1472-6874/14/19), Vishnu Khanal^{1*}, Mandira Adhikari², Rajendra Karkee³ and Tania Gavidia⁴, Factors associated with the utilization of postnatal care services among the mothers of Nepal: analysis of Nepal Demographic and Health Survey 2011
- Institute of Community and Public Health, Birzeit University, The Postnatal check up in women of Palestinian, July 2010.
- Jessica M, Stella N, Shin M, and Michel C., use of postpartum care predictors and barriers: *journal of pregnancy* 2014, 1 (1).
- Koblinsky M. Reducing maternal mortality and increasing use of skilled birth attendance. *Ethiopian Journal of Reproductive Health* 2012; 4(1).
- Lotta Ellberg Umeå, UMEÅ UNIVERSITY MEDICAL DISSERTATIONS, Postnatal care – Outcomes of various care options in Sweden 2008: .
- M. C. Lu and J. Prentice, “The postpartum visit: risk factors for nonuse and association with breast feeding,” *American Journal of Obstetrics and Gynecology USA* 2009, vol. 187, no. 5.
- M. D. Kogan, M. Leary, and T. P. Schaetzel, “Factors associated with postpartum care among Massachusetts users of the maternal and infant care program,” *Family Planning Perspectives*, 2010 vol. 22, no. 3.
- Maternal mortality estimation interagency Group (MMEIG). Trends in maternal mortality: WHO, UNICEF, UNFPA and World Bank estimates: Switzerland; World Health Organization; 2010. Available at: <http://www.unfpa.org/webdav/site/global/shared/documents/publications/2012/pdf>
- Mini Ethiopian demographic and health survey, data on Postnatal care service 2014.
- Nankwange A: Factors influencing utilization Postnatal service Kampala. University of the Western Cape department of physiotherapy pny private bag x17 Bellville 7535 15/07/2007
- Nicolas v. and Mishel B. Essential Postnatal care: Amanda C. Loren V and Philips s (eds). A critical opportunity to save mother and new born USA. AOMCH service Jan 2007.
- Ntambue M., Malonga K., Dramaix W., and Donnen P. Determinants of maternal health services utilization in Democratic Republic of Congo. *BMC Pregnancy and Childbirth* 2012.

- Osrin D, Tumbahangphe KM, Shrestha D, Mesko N, Shrestha BP, et al. Cross sectional, community based study of care of newborn infants in Nepal 2011.
- Sakala B., Kazembe A. Factors influencing the utilization of postnatal care at one week and six weeks among mothers at Zomba Central Hospital in Malawi. Evidence Based Midwifery 2011.
- Shakala B. Kazembe A. factor affecting the utilization of postnatal care at one week and six weeks among at Zomba Central Hospital in Malawi evidence based university 9(4) 2010.
- Somefun Dolapo, Oluwaseyi University of Witwatersrand, Determinants of Postnatal Care Non utilization International journal of public health in Nigeria 2009, Vol 2 .
- Steven A. Prevalence and associated factors for non utilization of Postnatal care service, journal of health information population based study in kuwandza, peri urban area, zvimba district of Mashonaland, west province, Zimbabwe 2011 : vol (1)
- Sulochana D. Glyn N. Padam P. Utilization of PNC among rural women in Nepal, BMC pregnancy and child birth 2009: 7:19 doi: 10.1186/1471-2393-7-19
- World Health Organization. Make every mother and child count. Switzerland: World Health Organization. Available at: <http://www.who.int/whr/2009/pdf>.
- www.who.int/mediacentre/factsheets/.../e..., Global causes of maternal death 2014.
- Yinager Gebeyehu, Desta Aregawi. Factors Affecting Utilization of Postnatal Care Service in Amhara Region, Jabitena District, Ethiopia, 2013. Science Journal of Public Health. Vol. 2, No. 3, 2014,. doi: 10.11648/j.sjph.20140203.15