Factors Affecting to have Postnatal Care Service on Reproductive Age Group Women Who had Live Birth in the Recent Last Two Years, Womberma, Woreda, West Gojjam Zone, North, West Ethiopia

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Abstract

Background: Maternal complications resulted from child birth and lack of postnatal care service utilization do have their own significant figure to bring maternal deaths globally. Inadequate postnatal care service utilization has a direct relationship with maternal illness and infections; therefore, focusing on utilization of postnatal care service among women at reproductive age group (15-49) is crucial to decrease child birth related problems and deaths.

Objective: To assess factors affecting to have postnatal care service on reproductive age group women who had live birth in the recent last two years, Womberma, Woreda, West Gojjam Zone, North, West Ethiopia, 2018.

Methods: Cross-sectional type of study design was conducted on the community of selected kebeles. Sample size was determined by taking prevalence of post-natal care service utilization, 18% from Ethiopian mini-demographic health survey (EMDHS) of 2014. The calculated sample size was 500 with non-response rate of 10%. To minimize the inter-observer variation of data collectors, two days training was given on the aim of the research content of the questionnaire, and how to conduct questionnaire interview. The software used for data entry was EPI-Data version 3.1 and the entered data were exported for further analysis to SPSS software version 20.

Results: Variables in the binary logistic regression model with a p-value of <0.2 were collected to control confounders and for further analysis in multivariable logistic regression. Pregnancy number [AOR(95%CI)=0.299(0.113,0.788)], Time of family planning utilization after delivery [AOR(95%CI)=3.42(1.031,11.41)] and post-natal care service utilization in previous delivery [AOR(95%CI)=2.75(1.185,6.425)] were significantly associated variables with postnatal care service utilization of the study participants.

Conclusion: Postnatal care service utilization was still poor as compared to previous studies. Pregnancy number, time of family planning utilization after delivery and postnatal care service utilization in previous delivery were significantly associated variables. Especial attention should be given for post-natal care education, particularly for reproductive age group women.
Keywords: Associated Factors; Postnatal Care Service Utilization; Women with Child Bearing Age; Womberma Woreda

Abbreviations

ANC : Antenatal Care
DHS : Demographic Health Survey
EDHS : Ethiopian Demographic Health Survey
FP : Family Planning
NCHS : National Centre for Health Statistics
OR : Odds Ratio
PHC : Primary Health Care
PNC : Postnatal Care
SD : Standard Deviation
SSA : Sub-Saharan Africa
WHO : World Health Organization

Introduction

Maternal complications resulted from childbirth and lack of postnatal care service utilization do have their own significant figure to bring maternal deaths globally [1]. Health of women in reproductive age group depicts the indicator for unequal awareness for women between developed and developing countries. The death of women due to complicated pregnancy or childbirth in developed and developing country shows a great difference as it has been quantified as 1 in 7 and 1 in 30,000 deaths respectively [1,2].

In the recent last few years, greater attentions have been given for the health of women worldwide. The thematic areas for maternal health improvement have been planned in relation with Sustainable Development Goal (SDG) and targets to work with concerned bodies and other stake holders so as to reduce reproductive related problems and deaths among eligible women [3]. Newborn current health and feature health condition is highly related to the maternal health status and in each year, nearly 4 million newborns passed away before cerebrating their birth date of first month, indicating almost 40% of total deaths of under-five year children [4,5].

Almost all of these infant deaths occur in developing countries, with the highest number in far East countries like south Asia and the highest prevalence in sub-Saharan Africa. About 80% of loss of life for reproductive age group women in the world are contributed by inter-related causes such as preeclampsia, eclampsia, infections, obstructed labor and unsafe abortions [5,6].

A minimum of three postnatal care visits should be made regardless of any type of problems faced for both newborns and mothers to prevent further complications which may occur. The recommended time for both maternal and newborn care could be on day 3, between 1-2 weeks, and six weeks after giving birth. With regard to Federal Ministry of Health in Ethiopia put its own recommendation times, which suggests 6-24 hours, 3 days, 7 days and 6 weeks for postnatal care service utilization for both women and their off springs. The situation of health in the community can be determined in relation with the health status of women who are found in the society. Focusing on postnatal care service utilization should be considered as one of the most crucial maternal health care issue to prevent any type of negative impacts and challenges resulting from childbirth [7-9].

Being unable to get postnatal care during the recommended time intervals may bring unwanted outcomes like death or other health problems as well as missed opportunities to come with healthy behaviors, affecting women, newborns and later while children [10]. Most of mothers suffer with severe illness every year, related with reproduction and unspecified number of women are suffered with prolonged discomfort and disabilities. Types of outcomes with lack of postnatal care can include prolonged pain or discomfort, unable to move temporary or permanent effect on the organs of reproductive system or losing a chance for feature pregnancy or child bearing. Some of bad habits like gentle mutilation in some societies may also a major contributor for very dangers complication of women during child birth [11].

Severe obstetric bleeding is the dominant factor for the death of women regardless of developed and undeveloped countries. Post partum hemorrhage is highly fatal unless the management is taken on time [12]. Relatively higher number of infant and maternal death occurs within 48 hours after childbirth so that giving attention in these two days after childbirth is very important to manage any types of childbirth related complications. Therefore; attaining postnatal care is very mandatory for community health in general and maternal and infant health in particular. Taking care after delivery is unquestionable to catch up information in addition to reproductive health related issues like healthy life style behaviors and other issues especially non-communicable disease, becoming basic public health problems today in the world [13].

The World Health Organization (WHO) described that taking care after childbirth can be described as a service provided to the mother and her infant as soon as finishing the birth of the placenta and for the first consecutive six weeks after giving birth [14]. It is necessary because in this time the reproductive organs return to their pre-gravid state and lactation is started, the mother returns from the physical and emotional stress of Labor and the family makes away to the new baby [15].
Post-natal care services are to help or to ensure both maternal and new child to be healthy in the community in which they are going to be joint. Consultation, prevention, early diagnose and treating complications of the mother and new born, referring the mother and new born for skilled personnel if any problem happens, helps to prevent any types of problems which may occur [15]. Visiting higher health institutions when it is above the capacities of the facilities which is found nearby of service users, counseling women about new born care, giving health education on how to breast feed, women food consumption, provide contraception service, counseling on the benefits of timely provision of immunization for the child are key components to be effective for health service providers. In the situations of limited resource, conducting discussion with the health care system program managers if possible within one day and if not within the first week after delivery can be used for making strategic plans to get expected outcomes later on [16].

This period is almost neglected in developing countries, mothers and newborn infants have no chance for Postnatal Care Services (PNC) from trained health care professionals in the recent time as it has been specified by WHO after delivery [17]. In the case of civilized nations actually majority of women and their newborns get postnatal care services but the pattern and time to take the service variation exists accordingly [17].

However, in uncivilized nations even the interest to take a care and to be counseled and advised after having birth was very poor and nearly 30% of mothers in North Eastern African countries get birth in health organizations, and very less number of women attend PNC service within the time intervals of 24 hours after giving child birth. Wherever mothers give birth within their home or in organized health facility, the services for postnatal care are often neglected. On the contrary, the availability of the health facilities alone may not be effective unless it fulfills all necessary equipments for the provision of the services for both newborn and maternal care [18,19]. Very few number of women, about 7% attended for postnatal care service utilization within 24 hours after their delivery as it has been recommended by WHO while half (51.5%) of them in Addis Ababa had ever used postnatal care and to be counseled and advised after having birth was taken the numerical values of 2.

To sum up, the identification and prioritizing of factors affecting to have postnatal care service on reproductive age group women who had live birth in the recent last two years is necessary to have a feasible plan for feature improvement of postnatal care service utilization. It is hoped that assessing the prevalence of postnatal care service utilization status of women within the study area, will help to take immediate action and to promote care for planners, policy makers and stakeholders for understanding on the issue as well as to serve as an important tool for possible interventions at individual, family, and community levels as well as the study area in particular, and the region in general. The study will also be used as a baseline data for researchers who want to conduct on the similar studies and this study has answered the following research questions what is the current prevalence of PNC service utilization? And what are the factors affecting to get PNC service utilization among the study participants?

Methods

Study design, Area and Period

Cross-sectional type of study design was conducted on the community of selected kebeles. The study was conducted in Womberma woreda, West, Gojjam Zone, Amhara, Regional State, Ethiopia. The woreda has a total of 20 kebeles, one urban and ninety rural. The Woreda is located at a distance of 427 km from Addis Ababa, the capital city of Ethiopia and 172 km from Bahir Dar, which is the capital city of Amhara region and the study was conducted in April 2017.

Eligibility Criteria

All women who have live births in the recent last two years were the source populations for this study. Women who gave birth in the recent last two years and who resided in the area for six or more months before the study carried out were included. Mothers who have live births in the recent last two years and who were critically ill during the study period were excluded from the study.

Sample Size determination and Sampling Techniques

The sample size was determined by applying single population proportion formula and by assuming the prevalence of postnatal care service utilization among women in rural communities by taking 18% of prevalence rate of PNC service utilization EMDHS, considering a maximum margin of error as 5% in the study and at 95% CI, the sample size calculated was 500, with the study participants non-response rate of 10% and due to its multistage sampling nature of the study the design effect was considered and taken the numerical values of 2.

\[
\begin{align*}
  n &= \left(\frac{Z^2_{\alpha/2}}{d^2}\right) \left(P(1-P)\right) \\
  n &= \frac{(1.96)^2 \times 0.18 	imes 0.82}{(0.05)^2} \\
  n &= 227 + 22.7 = 249.7 \\
  n &= (1.96)^2 \times 0.18 \times 0.82 = 227 + 22.7 = 249.7 \\
  n &= \frac{(0.05)^2}{(0.05)^2}
\end{align*}
\]

To explain each:

n = numerator

Z = Z value at 95% CI, which is 1.96

\(\alpha/2\) = significance level, which is 0.05

P = prevalence of PNC service utilization rate, which is 18%

d = margin of error, which is 5%

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**Study Variables**

The outcome variable of the finding was Postnatal Care Service Utilization and its Associated factors. The independent variables were Socio-demographic variables like age, religion, educational level of mother, occupation of mother, current marital status, educational level of a husband, occupation of husband, ethnicity, Reproduction related variables like obstetric complication, postpartum complication, gravidity, parity, length of stay at health facility after delivery, previous history of PNC service, number of alive child, ANC service utilization. Health facility related variables like delivery attaining, place of delivery, advice on discharge.

**Sampling Procedure**

The eligible respondents for the study were selected by applying simple random sampling technique. In the woreda number of total kebeles were 20, one urban and nineteen rural kebeles, among these, five kebeles were selected by lottery method or by giving equal chance to be selected at stage one but all of these selected kebeles were from rural areas. At stage two (among 29,588 woreda households, 4922 households have mothers who have live births in the recent last two years. From those households, 1478 households in selected kebeles who have live births in the recent last two years were enrolled using Health Extension Family folder registration books. Then at stage three 500 mothers who have live births in the recent last two years were selected using simple random sampling technique and proportional allocation to size to each kebeles. The mothers who have live birth in the recent past two years, before this study were interviewed. Per each household, one woman was participated in the study and three visits were made for absences in the first visits (Figure 1).

**Data Collection Methods**

Since our study was quantitative, closed ended written questionnaire formats were used for data collection. Data were collected by twelve health professionals in the woreda. Training on the standard procedures and the technique and the approaches they should follow during the data collections were well explained for them. The contents on questionnaires were briefly described to reduce interviewer bias. Each woman who promoted the eligibility criteria in the study area for data collection, would have their own codes. The questionnaires were filled side by side as the interviewing Process was going on.

**Data Processing and Analysis**

After giving unique code for each created template, the data were entered by the principal investigator by using Epi-data version 3.1 software. When the entry had been completed the data were exported in to SPSS version 20 software for further analysis. Missed values and outliers were checked by using frequencies. The identified errors from frequency distribution were revised by referring the pre-coded document. Frequencies, mean and standard
deviations were computed for describing of the study population in terms of their socio-demographic and other explanatory variables.

Significance values for p values corresponding with crude and adjusted odds ratios with 95% confidence intervals were determined. To identify whether the association exists or not between the different predictor variables and outcome variables, first binary relationships between each independent variable and outcome variable was investigated, by using a binary logistic regression model to control confounders. Factors with a p-value <0.2 in binary logistic regression analysis were further taken into multiple variable logistic regression model analysis. Odds Ratio (OR) was used as a measure of association for the pre-determined study design and p-values < 0.05 was taken as statistically significant. The results were presented in the form of texts, tables and figures accordingly.

Ethical Approval

This study was done after it had been approved by Debre Markos University Medicine and health sciences organized ethical review committee and permission was obtained from Womberma woreda administrative health office. All the study participants were told about the aim of the study and finally their full voluntariness was made to be sure before starting the interview. If there were any complains among the study participants during interview, their rights were made sure to terminate the interview.

Results

Socio-demographic Variables

The total number of participants included in this study were 500 with their response rate of 97% in selected 5 kebeles of womberma woreda. Less than half of the respondents 196 (39.2%) belong to the age group of 25-34 years and 158(31.6%) belong to the age group of 15-24 years and 146(29.2%) were >34 years. The mean age with the standard deviations (± SD) of study participants was 29.51 ± 7.53 years. With regard to religion majority of them 456(91.2%) were orthodox Christians, 35(7%) Muslims and 9(1.8%) were protestants. With regard to educational level 241(48.2%) of respondents were, unable to read and write, 114(22.8%) able to read and write 50(10%) elementary and secondary school and 18(3.6%) were preparatory school 27(5.4%) were college and above. With regard to occupation 208(41.6%) were house wife, 223(44.6%) were farmers, 34(6.8%) were students 28(5.6%) were government employee and 7(1.4%) were private employee (table1).

<table>
<thead>
<tr>
<th>Variables</th>
<th>Category</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age group</td>
<td>15-24</td>
<td>158</td>
<td>31.6</td>
</tr>
<tr>
<td></td>
<td>25-34</td>
<td>196</td>
<td>39.2</td>
</tr>
<tr>
<td></td>
<td>&gt;34</td>
<td>146</td>
<td>29.2</td>
</tr>
<tr>
<td>Educational level of the study participant</td>
<td>Unable to read and write</td>
<td>241</td>
<td>48.2</td>
</tr>
<tr>
<td></td>
<td>Able to read and write</td>
<td>114</td>
<td>22.8</td>
</tr>
<tr>
<td></td>
<td>elementary school and secondary (9-10)</td>
<td>50</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>preparatory</td>
<td>18</td>
<td>3.6</td>
</tr>
<tr>
<td></td>
<td>college and above</td>
<td>27</td>
<td>5.4</td>
</tr>
<tr>
<td>Marital status of the study participant</td>
<td>Married</td>
<td>398</td>
<td>79.6</td>
</tr>
<tr>
<td></td>
<td>Not married</td>
<td>65</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>widowed</td>
<td>16</td>
<td>3.2</td>
</tr>
<tr>
<td></td>
<td>divorced</td>
<td>14</td>
<td>2.8</td>
</tr>
<tr>
<td></td>
<td>separated</td>
<td>7</td>
<td>1.4</td>
</tr>
<tr>
<td>Occupation of respondent</td>
<td>House wife</td>
<td>208</td>
<td>41.6</td>
</tr>
<tr>
<td></td>
<td>farmer</td>
<td>223</td>
<td>44.6</td>
</tr>
<tr>
<td></td>
<td>student</td>
<td>34</td>
<td>6.8</td>
</tr>
<tr>
<td></td>
<td>government employee</td>
<td>28</td>
<td>5.6</td>
</tr>
<tr>
<td></td>
<td>private employee</td>
<td>7</td>
<td>1.4</td>
</tr>
<tr>
<td>Ethnicity of the respondent</td>
<td>Amhara</td>
<td>427</td>
<td>85.4</td>
</tr>
<tr>
<td></td>
<td>Agew</td>
<td>2</td>
<td>0.4</td>
</tr>
<tr>
<td></td>
<td>Oromo</td>
<td>70</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>Tigre</td>
<td>1</td>
<td>0.2</td>
</tr>
<tr>
<td>Religion of the respondent</td>
<td>Orthodox</td>
<td>456</td>
<td>91.2</td>
</tr>
<tr>
<td></td>
<td>Muslim</td>
<td>35</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Protestant</td>
<td>9</td>
<td>1.8</td>
</tr>
</tbody>
</table>

Table 1: Socio-demographic variables by percentage distribution of the study participants Womberma woreda, West Gojjam Zone, North West Ethiopia, 2017.
Reproductive Health Related Variables

About 424(84.6%) of respondents had not experienced history of abortion, the rest 76(15.4%) had experienced history of abortion up to our study period. About 433(86.6%) of the respondent had ≤5 pregnancies and 67(13.4%) had >5 pregnancies up to our study period. More than 3/4th 407(81.4%) had ≤4 live births and 93(18.6%) had >4 live births up to our study period. About 298(59.6%) had planned and supported deliveries whereas 139(27.8%) had not planned and supported and 63(12.6%) had not planned and not supported deliveries. Among the respondents who had ANC visits were 363(72.6%) and those who had not got ANC visits were 137(27.4%). Nearly 3/4ths 396(79.1%) respondents had no complication during delivery whereas about 104(20.9%) had complications during their delivery (table 2).

<table>
<thead>
<tr>
<th>Variables</th>
<th>Category</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>History of abortion</td>
<td>Yes</td>
<td>76</td>
<td>15.4</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>424</td>
<td>84.6</td>
</tr>
<tr>
<td>Number of pregnancy</td>
<td>≤5</td>
<td>433</td>
<td>86.6</td>
</tr>
<tr>
<td></td>
<td>&gt;5</td>
<td>67</td>
<td>13.4</td>
</tr>
<tr>
<td>Number of live births</td>
<td>≤4</td>
<td>407</td>
<td>81.4</td>
</tr>
<tr>
<td></td>
<td>&gt;4</td>
<td>93</td>
<td>18.6</td>
</tr>
</tbody>
</table>

Table 2: Reproductive related variables of the study participants in Womberma Woreda, West Gojjam Zone, North West Ethiopia, 2017.

Factors Associated with Postnatal Care Service Utilization

Factors with a p-value <0.2 in the binary logistic regression analysis, number of pregnancy, number of total live birth, history of utilizing PNC service, time for family planning utilization after delivery, history of utilizing ANC service and number of ANC visits made were entered into the multiple variable logistic regression analysis to control for potential confounders. Number of pregnancy [AOR(95%CI) =0.299(0.113-0.788)], Time of FP utilization after delivery of [AOR(95%CI) =3.42(1.031,11.41)] and PNC service utilization in previous delivery [AOR(95%CI) =2.75(1.185,6.425)] were significantly associated factors with postnatal care service utilization of study participants when it was further analyzed with multiple logistic regression (table 3).

<table>
<thead>
<tr>
<th>Variables</th>
<th>Utilizing PNC</th>
<th>Not utilizing PNC</th>
<th>Crude Odd Ratio (95%CI)</th>
<th>Adjusted Odd Ratio (95%CI)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pregnancy number</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤5</td>
<td>17</td>
<td>50</td>
<td>1.99(1.08-3.68)</td>
<td>0.29(0.113-0.788)</td>
<td>&lt;0.015</td>
</tr>
<tr>
<td>&gt;5</td>
<td>63</td>
<td>370</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time of FP utilization after delivery</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤12 month</td>
<td>6</td>
<td>8</td>
<td>4.59(1.46-14.4)</td>
<td>3.42(1.03-11.41)</td>
<td>&lt;0.045</td>
</tr>
<tr>
<td>&gt;12 month</td>
<td>24</td>
<td>147</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PNC service utilization in previous delivery</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>40</td>
<td>81</td>
<td>4.18(2.53-6.9)</td>
<td>2.75(1.185-6.425)</td>
<td>&lt;0.019</td>
</tr>
<tr>
<td>No</td>
<td>40</td>
<td>339</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3: Factors associated with postnatal care service utilization among women, result from logistic regression analyses, womberma woreda, West Gojjam Zone, North West Ethiopia, 2017.

Discussion

This study was conducted to determine the postnatal care service utilization of the study participants. Poor postnatal care service utilization and postnatal care related health problems highly influence the health of a huge number of women in the world [22]. The studies which was done in Lemo woreda of Ethiopia showed that the determined prevalence of postnatal care services utilization during that study period was 51.4%. The reasons described for not getting postnatal care services in that area were lack of knowledge on benefits of postnatal care (59%), due to being busy on other household activities (38.6%) and due to socio-cultural activities being practiced during postnatal period (20.4%). But this study revealed that the prevalence for utilizing postnatal care service was 16% in the study area, particularly in womberma woreda, which is low as compared with the studies done in Lemo woreda of Ethiopia though, it was relatively good as compared with other countries [23]. The little discrepancy between this study and EDHS of 2011 may be related to the sampling techniques used in this study or variations in the study methods from place to place, which...
may need further investigation and in addition to this, sources of population at which the sample was taken would be contributing factors for this slight difference [21,24,26].

A study done in Nepal revealed that 43.2% described receiving postnatal care within the first six weeks of child birth, while 40.9% described as they have attended postnatal care services following their child birth as soon as possible. While a study done in Brazil found that higher number of postnatal care utilization than many other developing counties which is 77% [24]. The reason for this discrepancy between each country may be due to socioeconomic development, and political attention differences in relation with maternal health and postnatal care service utilizations of the whole women at reproductive age group (15-49) [13,17,21]. The 2011 Ethiopian national DHS data found that the prevalence of postnatal care coverage is lower in Ethiopia. The large number of women accounting (92%) with a live birth in the recent last five years did not get a postnatal service care. From women who got a postnatal care services, about 4% had examined within the first 4 hours of child birth, 2% had taken PNC within 4-23 hours, 1% and 2% within 1-2 days and 3-41 days following their delivery respectively. The total of 7% women had attended postnatal care services within two days of delivery as the studied document has shown [25].

A study done in Nepal showed that mothers who were living in the urban areas, from wealthy families who had a good educational level, whose partners had attended formal education, who give birth child in a health facility, who had taken ≥4 antenatal visits, and whose delivery was attended by a skilled health professional were more likely to report attending at least one postnatal care visit [27]. While a study done in Brazil found that women with lower income, those with lower level of education, mothers living alone or without their husbands, women who delivered vaginally and those who were not helped by skilled health professionals, were less likely to receive postnatal care [28].

According to this study number of pregnancy, previous history of postnatal care and time for starting family planning after delivery were factors which were significantly associated with utilization of postnatal care services. Women who had taken postnatal care service utilization were 71% less likely to have >5 pregnancies in this study than those who do not attain postnatal care service utilization. The reason for this may be those who have postnatal care may be more knowledgeable than those who do not attain postnatal care service. Women who have knowledge or experience of postnatal care service utilization in their previous delivery were 2.75 times more likely to attain postnatal care service utilization for their current delivery. The reason for this maybe they may be thought by health professionals about the benefits of postnatal care to have updated information throughout their life. The study participants who have frequent postnatal care service utilization were 3.42 times more likely to come for family planning at the time of less than or equal to one year (≤1) than those who do not attain postnatal care service utilization and who come more than one-year period for their family planning after delivery. Factors which were found in our study were different from other studies, this may be due to differences in the study types and sampling techniques which are done in different places accordingly [24,31,33].

A study on the assessment of variables affecting postnatal care services was conducted in Western Gojjam district, Amhara regional state and found that among the socio demographic factors, the key predictor for PNC utilization was educational status of the respondents. A participant whose level of education was secondary school and above showed better utilization of PNC service as compared with women who cannot read and write [29]. The major factor predicting postnatal care service utilization was place of delivery. Mothers who delivered their last baby in health institution utilized PNC services when compared with those who delivered at home, mothers who decided by themselves utilized PNC services as compared to those who did not decide by themselves. In addition to these, mothers who had exposure at least for one postpartum obstetric danger sign were utilizing PNC service as compared to those who were not ever exposed for postpartum obstetric danger signs [30,31,34].

Conclusion

The prevalence of postnatal care service utilization was still poor as compared to previous studies. Previous history of postnatal care service utilization, number of pregnancies and time to attained family planning after delivery were significantly associated with postnatal care service utilization of the study participants. The factors associated with postnatal care service utilization were closely related to obstetric characteristic variables of this study. Low coverage of postnatal care service utilization is the single greatest threat to the public health. To overcome this problem the following recommendations are forwarded. Especial attention should be given for postnatal care education, particularly for women who belong to the age group of 15-49 years. Community based discussion by focusing on postnatal care issues should be strengthen. Gender equality should be practiced to reduce work load of women and so as to allow women to have postnatal care services on time. Agricultural, educational and health sectors in collaboration should focus on practices of trained staffs, because there were lower commitments and practices among trained staffs to intervene the problem of low coverage of PNC in the community. Health extension workers should focus on encouraging good practices of women for postnatal care services. Urgent action is needed to tackle lower attitude of women for postnatal care service utilization.
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Availability of Data

The datasets used during the current study are available from the corresponding author on reasonable request.

Authors’ Contribution

Belachew Golla, participated in study design selection, data collection activities, data analysis and interpretation. Silesshi Berihun, Mekuanint Taddele and Yihalem Abebe also participated in data analysis, interpretation and drafting the manuscript.

Conflict of Interests

The authors declare that they have no competing interests.

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