Perception of Post-Partum Women Towards Birth Companions at a Tertiary Hospital and its Catchment Health Centers in Addis Ababa, Ethiopia

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Abstract
Background: Birth companion refers to a person who provides support to laboring women during child birth. Various studies have shown the benefits of birth companions. The objective of this study was to assess the attitude of mothers towards the involvement of birth companions during child birth at St Paul’s Hospital Millennium Medical College (SPHMMC) and its selected catchment health centers.

Methodology: The study used a cross-sectional study to determine the perception of postpartum mothers on the involvement of birth companions during child birth.

Result: The study included a total of 393 postpartum women. The finding from the study showed majority of the post-partum women (98.7%) were not allowed to have companions during labor. Among postpartum women 27.3 % has negative attitude towards involvement of birth companions. The commonest reasons mentioned by post-partum women for having negative attitude to this practice included need for privacy, religious values and fear of overburdening family members with stress.

Conclusion: The findings from this study showed that majority of women were denied the option of having a birth companion. The study has also shown the desire to have birth companion isn’t universal among laboring women in our setup. There is a need to understand the socio-cultural values of the community before embarking on widespread implementation of involvement of birth companions.

Keywords: Birth companions, Post-partum women, Ethiopia
This study is done in two phases wherein the first one assessed the health worker’s knowledge, attitude and practice with regards to birth companions. This was followed by a second study which assessed post-partum women’s perception with regards to involvement of birth companions. The study explored the extent of involvement of birth companions and the factors that restricted the implementation of the practice in labor wards. This part of the manuscript presents the finding from the second of the phase of the study.

Therefore, the objectives for this study were:

- To understand the attitude of postpartum women who delivered at SPHMMC and its selected catchment health on involvement of birth companions.
- To determine the prevailing practice with regards to birth companion’s involvement at labor wards of SPHMMC and its selected catchment health centers.

Methods

Study setting

The study was conducted at SPHMMC and three randomly selected catchment health centers namely Kolfe, Lukanda and Mikilil and health centers in Addis Ababa, from September to December 2019. The hospital, which serves as referral health establishment, provides delivery service to over 10,000 mothers in a year. The hospital has 16 catchment health centers which have a well-organized referral and feedback system with the hospital.

To give a brief overview of the health facilities that were included in the study SPHMMC had the largest space. The hospital had a total of 4 active labor beds and 8 second stage couches which are classified among 5 rooms. But due to lack of space the laboring mother were placed randomly on the available bed i.e. those in active first stage of labor can be kept in second stage couches and vice versa. Postpartum mothers were also left in the place they delivered for hours. The labor ward has curtains on one of the rooms but the other rooms had broken hangers and bent screens which expose the rooms to passerby.

Kolfe health center accommodates a total of 7 patients with a single room that can accommodate a total of five active first stage mothers with no screen among them and one room that has two second stage couches. The other two health centers also have a similar setup with this.

This study targeted postpartum women who delivered at these facilities.

Study Design

The study used cross-sectional study design to assess the perception of postpartum women towards involvement of birth companions.

Study population, Sample size and Sampling method

The study included a sample size of 393 post-partum women among women who delivered in the selected health care establishments. The sample size is determined using the formula for cross sectional study design.

The study subjects were sub-divided between the referral hospital i.e. SPHMMC, and its selected catchment health centers proportionally based on the number of deliveries at each facility.

\[
N = \frac{Z^2 \cdot p \cdot q}{d^2}
\]

Where: 
- \(N\) = the desired sample size
- \(Z\) = standard deviation at the required confidence level
- \(p\) = proportion of post-partum women who accept the involvement of birth companions
- \(q\) = 1 - \(p\)
- \(d\) = desired level of precision i.e. margin of error
- \(g\) = design effect

A proportion of 58 % is taken from a similar study that was conducted in Ghana which showed that 58 % of the women preferred to have a lay companion during a facility based labor and delivery [5].

Thus \(N = \frac{1.96^2 \cdot 0.58 \cdot 0.42}{0.05^2}\)

Working out of the above equation and adding 5 % non-response rate set the sample size to 393 respondents.

The women who were included in the study were selected using systematic random sampling. This was done among women who were already admitted to the labor ward of the selected institutions until the given quota of the specific institution was reached.

Those women who are clinically unstable during the data collection were excluded from the study. Pretest was conducted on 10 % of the above sample, i.e. 39 mothers who gave birth at Ras Desta hospital from 1-15 August, 2019.

Data Collection, Quality Control and Analysis

Data on the on-going practice and on preference of women with regards to the involvement of birth companions at the facilities was collected using exit interviews on women who delivered at the selected health facilities. The study tool used was developed for this study. Trained enumerators who are not involved in labor ward activities collected the desired data and information.

To ensure the quality of the collected data prior training on data collection methodologies and close supervision throughout data collection was carried out by the principal investigator. Data was also assessed for completeness and accuracy before entry into Epidata.

Once the data gathering is completed, it was entered into Epidata and cleaned and analyzed using SPSS Version 20.0. Determination of the frequency of the socio demographic factors and practice with regards to involvement of birth companions was conducted.

Operational Definitions

The following terms were defined after review of literatures on birth companions. Birth companion: anyone who accompanies a laboring woman during the birth process Doula: a trained lay person who accompanies a laboring woman during the birth process...
Results
Socio-demographic characteristics of study participants
This study was undertaken at SPHMMC and selected three catchment health centers. The data was collected from September to December, 2019.

SPHMMC had a total of 982 deliveries in the study period. From these deliveries 71% were in the labor ward. And 95.2% of the deliveries were singleton deliveries.

During the study period the labor ward team included obstetrics and gynecology consultant, seven residents, six midwives and three interns. There was also a duty team with comparable number of residents, midwives and interns.

Among the health centers Kolfe health center has the largest number of deliveries in the study period. At this health center the total number of deliveries was 170. The study included a total of 393 post-partum women. From these the majority 305 (77.6%) were from SPHMMC, the rest were from the three health centers.

The mean age of the women was 27 years and the majority, 92.4% were married. The majority of study participants have primary school level education. (Table 1)

With regards to the income of the maximum yearly income was 600,000 Ethiopian birr per year with a mean of 36,752 birr.

Table 1: Socio-demographic characteristics of post-partum women included in the study

| Marital Status of women | Total number | Percentage |
|-------------------------|--------------|------------|
| Married                 | 363          | 92.4       |
| Single                  | 25           | 6.4        |
| Widowed                 | 3            | 0.7        |
| Divorced                | 2            | 0.5        |

| Religion                | Total number | Percentage |
|-------------------------|--------------|------------|
| Orthodox Christian      | 171          | 43.5       |
| Islam                   | 120          | 30.5       |
| Protestant              | 100          | 25.4       |
| Catholic                | 2            | 0.5        |

| Level of education      | Total number | Percentage |
|-------------------------|--------------|------------|
| No formal education     | 45           | 11.5       |
| Primary school          | 247          | 62.8       |
| Secondary school        | 58           | 14.8       |
| Tertiary school         | 31           | 7.9        |
| Advanced degree         | 8            | 2          |
| Didn’t want to mention  | 4            | 1          |

| Opinion on routine involvement of birth companion | Frequency | Percent |
|----------------------------------------------------|-----------|---------|
| Strongly agree                                     | 174       | 44.3    |
| Agree                                              | 110       | 28      |
| Undecided                                          | 2         | 0.5     |
| Disagree                                           | 62        | 15.8    |
| Strongly disagree                                   | 45        | 11.4    |
| Total                                              | 393       | 100     |

Those post-partum women who preferred their mothers or mother-in-laws to accompany them during labor mentioned reasons such as they have been through labor already and that they will understand and help them better than others. Among those women who preferred their sisters, sister-in-laws or friends to accompany them they explained that they are comfortable around them and they

Table 2: Post-partum women opinion on routine involvement of birth companions

Table 3: Preferred labor companion by post-partum women involved in the study

| Preferred companion                              | Frequency | Percent |
|--------------------------------------------------|-----------|---------|
| Husband                                          | 156       | 39.7    |
| Mother                                           | 55        | 14      |
| Sister                                           | 35        | 8.9     |
| Mother-in-law                                     | 9         | 2.3     |
| Friend                                           | 7         | 1.8     |
| A lay woman who provide support throughout labor  | 17        | 4.3     |
| Other                                            | 7         | 1.8     |
| Total                                            | 286       | 72.8    |
There were also women who preferred lay women to accompany them and the reason was they didn’t want to stress their family members and these women might be able to help them similar to health professionals.

Post-partum women who didn’t want birth companions mentioned reasons such as need for privacy, religious restrictions, worry about overburdening their family with stress, worsening the already crowded environment and desire to go through the pain alone. According to one woman “The place is filled with people, I don’t want to add my family into this besides, I don’t think other than health professional’s others will help me.”

Discussion
A Cochrane systematic review was undertaken on continuous support for women during childbirth. It included fifteen trials involving 12,791 women. The study showed that women who had continuous intrapartum support were less likely to have intrapartum analgesia, operative birth, or have dissatisfaction with their childbirth experiences [2]. The benefit of birth companions was also emphasized by WHO [8].

Though our finding shows that majority of our women want a birth companion, studies done in developing countries show that there is a need to anticipate difficulties with its implementation. A study done in Malawi has shown uneducated birth attendants weren’t able to provide proper care. The study has also shown the need to enlighten women on purpose of birth companions unlike the midwives [9].

Our study has showed that 27.3 % of the post-partum women has negative attitude towards birth companions. The reasons mentioned includes need for privacy, religious restrictions, worry about overburdening their family with stress, worsening the already crowded environment and desire to go through the pain alone. A mixed method study done among pregnant women attending ANC in Ghana on preference of women on the involvement of birth companions has also shown that the general belief all women want birth companions is disputable [5].

Among the post-partum women who agreed to have birth companions 39.7% would have preferred their husband to accompany them. A study done in Nigeria, considering the increased request for male companions in developing countries assessed the attitude and perception of birth attendants with regards to male birth companions. The study showed 82.4 % of birth attendants support the presence of male partners at delivery. A survey done in England has shown fathers or partners were involved in 89 % of the cases [10]. The underlying cultural and religious belief and the existing setup should be taken into consideration before deciding to incorporate birth companions in the routine practice.

Conclusion and Recommendation
1. The findings from our study showed that labor companions are not part of the routine practice in SPHMMC and its catchment health centers.
2. Majority of the women want their partners or family members to accompany them.
3. One of the reasons mentioned by the few postpartum women who declined companions is the fear of exposure in front of others.
4. The underlying cultural and religious belief and the existing setup should be taken into consideration before deciding to incorporate birth companions in the routine practice.

List of Abbreviations
• ANC- Antenatal care
• EDHS- Ethiopian demographic and health survey
• ETB- Ethiopian Birr
• SPHMMC- St. Paul’s Hospital Millennium Medical College
• WHO- World Health Organization

Declarations
Ethical approval and consent to participate. Ethical approval was secured from the Institutional ethical review board (IRB) of St. Paul’s Hospital Millennium Medical College before the start of the study. Support letter was prepared and submitted to heads of selected health centers. Prior to the collection of the study data, the detail of the study objective was explained to all post-partum women involved in the study and verbal informed consent was obtained from study participants, this procedure was explained to the IRB before commencement of data collection. This was chosen to also include the illiterate post-partum women. Study participants were not required to mention their names and participation in the study was on volunteer basis. Minors weren’t included in the study.

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