

Knowledge towards Birth Preparedness and Complication Readiness among Mothers Who Attend Antenatal Care at Mizan-Aman General Hospital, South West Ethiopia

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Abstract

Background: Birth preparedness and complication readiness is the process of planning for normal birth and anticipating the actions needed in case of an emergency. The risk of a woman dying as a result of pregnancy during her life time is about 1 in 16 in Sub-Saharan countries which pose a huge challenge to meet the fifth millennium development goal to reduce the maternal mortality by 75% between 1990 and 2015.

Objective: To assess the knowledge of pregnant women who attend ANC at Mizan-Aman general hospital towards to birth preparedness and complication readiness, 2014.

Methods: Institution based cross-sectional study was conducted in Mizan- Aman general hospital. Sample was selected by using systematic random sampling in which individuals were chosen at regular interval. The data was collected using interviewer administered questionnaires from total of 350 samples. The analysis was done using statistical package for social science and result of the study was presented using table and graphs. The study was conducted in March 2014.

Result: In this study a total of 350 women of reproductive age from Mizan-Aman general hospital were interviewed. Majority of respondents 231 (66%) mentioned at least one key danger sign during pregnancy and 67 (19%) mentioned at least two danger signs. Two hundred sixty three (75%) of our respondents have heard about birth preparedness and complication readiness. Of them 191 (72.2%), 48 (18%) and 24 (9%) heard from health professionals, mass media and family member respectively. Of our respondents 97 (37%), 78 (30%), 56 (21%), and 18 (7%) mentioned birth place & assistance plan, arranging material necessary for safe delivery, identify pregnancy danger signs, and potential blood donor as elements birth preparedness and complication readiness, respectively. Forty nine (14%) of the total reported that as they have faced/were facing obstacle during their birth preparedness and complication readiness practice. On the other side 258 (74%) of the respondents had encouraging factors during their birth preparedness and complication readiness practices.

Conclusion and recommendation: Although awareness of the concept of BP/CR was high (66%), recognition of at least two key danger sign in pregnancy was poor (19%). So, it is better if local health offices arrange community based education and empowering women by expanding educational opportunities .

Keywords: complications readiness, birth preparedness, knowledge, Ethiopia

Introduction

Birth preparedness and complication readiness (BP/CR) is the process of planning for normal birth and anticipating the action needed in the case of emergency. It is also a strategy to promote utilization of skilled maternal and neonatal care timely, based on the assumption that preparing for child birth and being ready for complications reduces delay in obtaining this care (MNH, 2004, JHIECO, 2004). Birth preparedness includes selecting birth location, identifying skilled provider and making the necessary plan to receive skilled care for normal birth and preparing for rapid action in the event of an obstetric emergency. An emergency plan should include identifying the nearest functional 24 hours emergency obstetric care facility, means of transportation in emergency, suitable blood donors, source of emergency funds, designation of person to make decision on the women's behalf and a person to care for her family while she is away (Donagh, 1996).

Globally, it is estimated that each year some 8 million women suffer from pregnancy related complication and more than half a million women still die annually as a result of complication of pregnancy and child birth (WHO, 2007). Poor maternal health leading to maternal death and sever acute maternal morbidity remains a major problem, especially in sub-Saharan Africa, where the maternal mortality ratio (MMR) is declining steadily. One of every 16 woman dies of pregnancy related causes during her life in sub-Saharan Africa, compared with only 1 in 2,800 women in developed regions (Lozarno, 2011).

Every pregnant woman faces the risk of sudden, unpredictable complications that could end in death or injury to herself or to her infant. Pregnancy related complication cannot be reliably predictable. Lack of advanced planning for use of skilled birth attendant for normal birth and particularly inadequate preparation for rapid action in the event of obstetric complication are well documented factors contributing to delay in receiving skilled obstetric care (JHIPEGO, 2001).

Obstetric complication like sever hemorrhage may lead to maternal death within a few minutes and delay when complications arise worsens the prognosis for the pregnant woman and her baby (WRASM, 2002,

Kitila, 2001). Failure to plan in advance for a normal birth and inadequate preparation for urgent action in event of obstetric complications are well documented factors contributing to delays in receiving skilled obstetric care and consequently contribute to maternal and neonatal mortality (Berhan, 2004). Many pregnant women are unable to recognize the danger signs of obstetric complication. When complications occur the unprepared women, her spouse and / family waste time in recognizing the problem, making the decision to seek emergency obstetric care getting organized, getting money, finding transport and reaching the appropriate referral facility (Moore, 2004). BP/CR is a global strategy in safe mother hood programs aimed at reducing these delay (JHIECO, 2004). Women and newborns needed timely access to skilled care during pregnancy, child birth and postpartum. Too often, however, their access to care is impeded by delay in deciding to seek care, delay in reaching care and delay in receiving care. The delays have many causes including logistical and financial concerns, unsupportive policies and gaps in services as well as inadequate community and family awareness and knowledge about maternal and newborn health issue (Mona, 2002).

Knowledge of obstetric danger signs and birth preparedness are strategies aimed at enhancing the utilization of skilled care in low income countries (Kolinsky, 1999). Presence of skilled attendants at birth and availability of emergency obstetric care have been shown to greatly reduce maternal death due to obstetric complications (Bell, 2003, Paxton, 2005).

Despite the great potential BP/CR in reducing the maternal death, its status is not well known in most sub-Saharan Africa. Therefore, this study was aimed to assess the knowledge of pregnant women who attend ANC at Mizan-Aman general hospital to ward BP/CR.

Method and materials

The study area and period

The study was conducted in Mizan-Aman general hospital, Bench Maji Zone, South West Ethiopia. Bench Maji Zone has a total population of 860,000 and health coverage of 88.8%. The general hospital is established in 1985 which was intended to serve around 60,000 people of the town. But now a day it serves for around 2,000,000 people. In 2013 there were 1859 pregnant women who attended ANC follow up in the hospital (34). The study was conducted in March, 2014.

Study design

Institution based cross-sectional study design was conducted in Mizan-Aman general hospital.

Source and Study population

The source population was all pregnant women of Mizan-Aman town and the study population was all pregnant women of Mizan-Aman town who attend ANC at Mizan-Aman general hospital.

Sampling technique and sample size determination

Sample size was calculated by using single population proportion formula to calculate sample size which was 350. To select this systematic random sampling method was used in which individuals were chosen at regular interval.

Data collection Method and Material

The data was collected by using interviewer administered questionnaires which was prepared in English and latter translated to local language.

Data quality control measures

To assure the quality of data: first appropriate orientation and training was given to data collectors. Pretest was done in similar population but not included in the sample of actual data collection. Collected data was checked for its completeness and clarity on daily basis.

Data processing and analysis

After data collection the responses was coded and entered in to Epidata version 3.1 and transported to SPSS (statistical package for social science) for analysis.

Operational definitions

Birth preparedness: The process of planning for normal birth and anticipating the actions needed during emergency.

Complication readiness: Refers to the process of anticipating the actions needed in care of an emergency.

Ethical considerations

Ethical clearance was obtained from Mizan- Tepi University, college of health science ethical clearance committee. Permission also obtained from Mizan-Aman general hospital administrative office. Following approval, informed consent was provided with full information including the objectives of the study, selection criteria, confidentiality and benefits of the study.

Result

Socio demographic characteristics

In this study a total of 350 women of reproductive age from Mizan-Aman general hospital were interviewed. About 58% of the respondents were between the ages of 25 and 34 years. Most of the respondents were Orthodox (83.2%) and Muslim (12.7%) by religion. Majority of the respondents were Kafa by ethnicity (66%), and 88% of the woman were married. Forty four percent of the study population had attended formal education. Half of our respondent (51%) were housewife and 99 (45%) of the respondent were with family size of 4-6 (Table1).

Table1. Frequency and percentage distribution of socio-demographic characteristics of women attending ANC of Mizan Aman General Hospital, 2014

Characteristics	Frequency	Percent (%)
Age		
15-24	83	24
25-34	204	58
35-49	64	18
Religion		
Catholic	6	1.7
Muslim	45	12.7
Orthodox	291	83.2
Protestant	8	2.28
Ethnicity		
Kafa	232	66.3
Bench	52	14.8
sheka	43	12.3
Others	23	6.6
Marital status		
Single	22	6.3
Married	309	88
Divorced	16	4.54
Widowed	3	0.9
Educational level		
Unable to read and write		
Grade 1-8	41	11.8
Grade 9-12	153	44
Collage &above	89	25.4
	67	19
Occupation		
House wife	178	51
Gov'tal employer	92	26.3
Merchant	76	21.8
Farmer	3	1
Family size		
1-3	138	39.6
4-6	158	45
>7	54	15.4
Income		
<500	67	19
500-1500	129	36.8
>1500	154	44

Reproductive characteristics

The age at first marriage for majority of the respondents (84.6%) ranges 14-24 years. Two hundred seventy seven (79%) of woman had history of family planning use and of them 200 (72%) used Injectable contraceptive,

37 (13.2%) used Implanol, 35 (12.6%) used pills, and 5 (1.7%) used IUCD (Table2).

Table2. Showing frequency and percentage distribution of some reproductive health characteristics of women attending ANC of Mizan-Aman General Hospital, May 2014

RH Characteristics	Frequency	Percent (%)
Age at 1 st marriage		
<14	11	3.2
14-24	295	84.6
>24	43	12.2
Age at 1 st delivery		
14-24	224	70
25-34	95	30
35-44	0	0
Gravidity		
1-3	251	71.8
4-6	99	28.1
>6	0	0
Parity		
0-2	221	63.1
3-4	110	31.1
>6	19	5.4
Family planning method		
Pills	35	12.6
Injectable	200	72.4
Implanon	37	13.2
IUCD	5	1.7

Knowledge of BP/CR during pregnancy

Two hundred sixty three (75%) of our respondents have heard about BP/CR before, of them 191 (72.2%), 48 (18%) and 24 (9%) heard from health professional, mass media and family member respectively. Of our respondents 97 (37%), 78 (30%), 56 (21.2%), and 18 (7%) mentioned birth place & assistance plan, arranging material necessary for safe delivery, identity pregnancy danger signs, and potential blood donor as elements BP/CR, respectively. A total of 248 (94.3%) knows at least one elements of BP/CR and 15 (5.7%) mentioned at least two elements of BP/CR.

Knowledge of danger signs during pregnancy

Majority of our respondents 231 (66%) mentioned at least one key danger sign during pregnancy and 67 (19%) mentioned at least two danger signs. Out of 231 respondents 174 (75%), 33 (14.5%), 14 (6.2%), 10 (4.1%) mentioned vaginal bleeding, absence of fetal movement, convulsion and others (blurred vision & edema) as pregnancy danger signs, respectively.

Knowledge of danger signs during labor & delivery

Two hundred thirty four (66.8%) of the respondents mentioned at least one key danger signs, of them 138 (59%), 51 (21.8%) and 3 (1.4%) specify excessive vaginal bleeding, retained placenta, prolonged labor and convulsion as labor & delivery danger sign, respectively. In addition 54 (15.4%) of our respondents mentioned at least two danger signs.

Knowledge of danger signs during postpartum

Among 189 of respondents who mentioned at least one danger sign, 83 (43.7%), 57 (30.2%), 46 (24.4%), and 3 (1.7%) mentioned sever vaginal bleeding, offensive vaginal discharge, high fever and convulsion as postpartum danger sign, respectively. One hundred eighty nine (54%) of the respondents mentioned at least one key danger sign, and 91 (26%) mentioned at least two danger sign.

Knowledge of newborn danger sign

Out of 223 of respondents who mentioned at least one danger sign 152 (68%), 36 (16%), 25 (11%) and 10 (5%) mentioned fever, difficult to breath, difficult to breast feed and blue / yellow appearances as danger sign of newborn and 103 (29%) mentioned at least two danger sign (fig. 1)

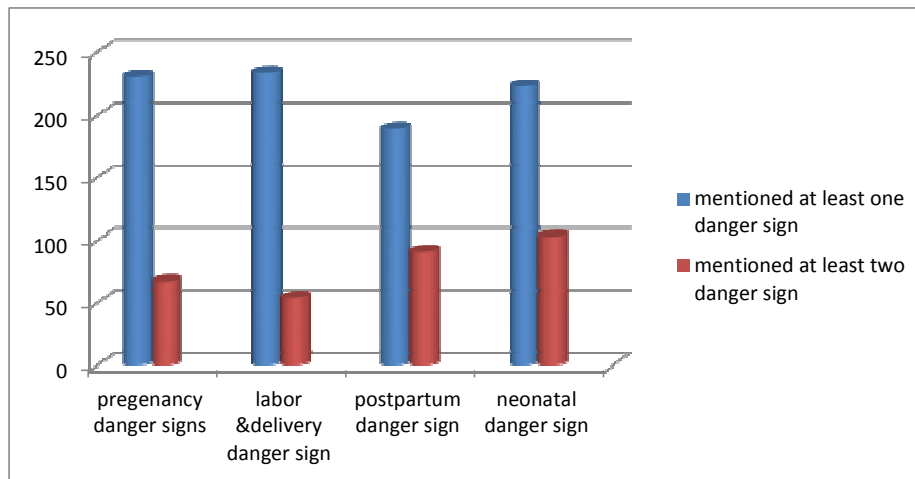


Fig1. Knowledge of danger sign during pregnancy, labor, & delivery, postpartum and neonatal period Mizan Aman general hospital, 2014.

Obstacles and encouraging factors of BP/CR practice

Forty nine (14%) of the total reported as they have been facing obstacle during their BP/CR practice. Of the total 27 (55%), 13 (26.5%), 8 (16.3%) mentioned that lack of money, lack of family support and lack of transportation access were their leading obstacles, respectively (fig 2).

On the other side 258 (74%) of the respondents had encouraging factors during their BP/CR practices. One hundred (38.7%), 92 (35.6%), 41 (15.8%), and 25 (9.6%) of our respondents mention that as health care provider support, family support, health institution nearness and having enough income were their encouraging factors, respectively. In addition to this 307 (87.7%) our respondent or 99.5% of the married woman got support by their partner in their BP/CR practices (fig3).

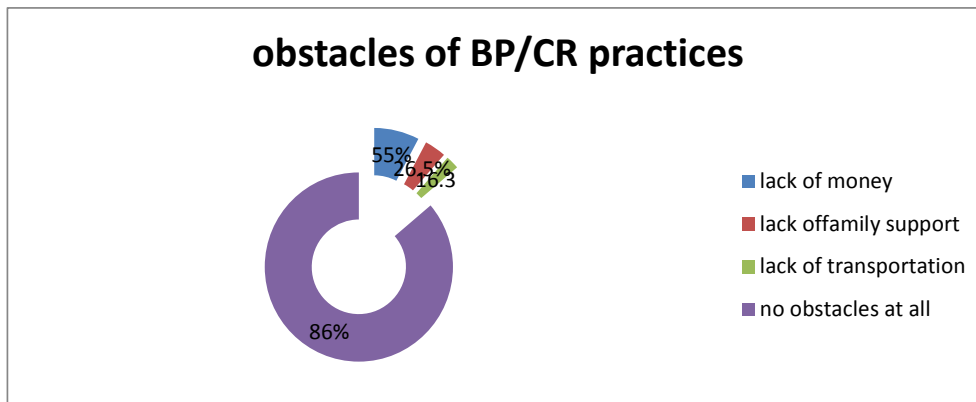


Fig2. ; Obstacles of BP/CR of pregnant women in Mizan Aman general hospital, 2014.

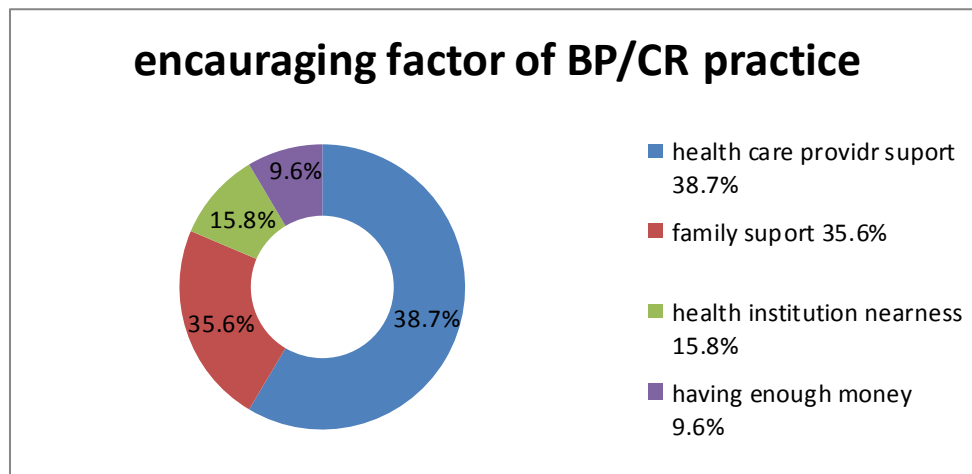


Fig3 Encouraging factor of BP/CR of pregnant woman in Mizan Aman general hospital, 2014

Discussion

An important aspect of assessing birth preparedness and its complication readiness is measuring spontaneous knowledge of essential danger sign of obstetric and newborn complications. Knowledge of the danger sign of obstetric complication is the first step in appropriate and timely referral for essential obstetrics care. In this study an attempt has been made to assess knowledge of women towards BP/CR in Mizan Aman general hospital. Regarding knowledge of respondents about pregnancy danger sign, 263 (66%) of our respondents mentioned at least one pregnancy danger sign. This is comparable with the study conducted in Kenya which was 67% (Mutiso, 2008). Among our respondents 67 (19%) mentioned at least two pregnancy danger signs. This is also comparable with other study which was conducted in Kenya (19.3%) but lower than the study conducted in Adigrat which was 26.4% (Hiluf, 2007).

In this study the knowledge of respondents towards to birth place planning was 37%. This figure was lower the study conducted in Robe, Goba and Adigrat which were 50.8%, 45.1% and 86.9% respectively (Hiluf, 2007, Kaso, 2014, Markos, 2014). This showed that the knowledge of our respondents in planning birth place was low. In this study the knowledge in preparing potential blood donor was 7%. This was higher than the study conducted in Goba which was 3.2% but this figure was lower than the results of other studies conducted in Robe and Adigrat which were 9.9% and 27.5% respectively. The knowledge regarding preparation of material necessary for birth and delivery (30%) was very low as compared with other studies. This figure was 87.6%, 99.8% and 33.1% in Goba, Robe and Adigrat respectively (Hiluf, 2007, Kaso, 2014, Markos, 2014).

Knowledge about vaginal bleeding as danger sign of pregnancy (65%) was comparable with study conducted in India (64.2%). In this study knowledge to consider absence of fetal movement as danger sign of pregnancy (14.5%) was lower than other study. This figure was 20.6% in the study conducted in Kenya (Mutiso, 2008)

The most frequently mentioned danger sign during labor and delivery was sever vaginal bleeding (59%) followed by retained placenta (21.8%) and prolonged labor (17.7%). While excessive vaginal bleeding (43.7%), offensive vaginal discharge (30.2%) and fever (24.4%), were the most frequently mentioned danger sign during postpartum period. This is lower than the study conducted in Nigeria for prolonged labor which was (20.5%) but higher for vaginal bleeding (12.7%) (32). Similarly, it's higher than the study conducted in Adigrat which was (16.5%), (11%) and (7.1%), for sever vaginal bleeding, prolonged labor and retained placenta as danger sign during labor and delivery respectively. And (16.7%), (1.1%), and (1.5%) of the respondent spontaneously mentioned sever vaginal bleeding, high fever and offensive vaginal discharge as danger sign during postpartum period, respectively (Hiluf, 2007).

Majority of our respondent (74%) got encouraging factors for their BP/CR. One hundred (38.7%), 92 (35.6%), 41 (15.8%), and 25 (9.6%) of our respondents specified that as health care provider support, family support, health institution nearness and having enough income were their encouraging factors, respectively. On the other side, 14% of the total complaining of obstacles, of this 27 (55%), 13 (26.5%), 8 (16.3%) spontaneously mentioned that as lack of adequate income, family support and lack of transportation access are leading obstacles during BP/CR practices. These factors are similar to other studies in general as they are universal barriers.

Conclusion

Although awareness of the concept of BP/CR was high (66%), recognition of at least two key danger sign in pregnancy was poor (19%).

Knowledge on birth place planning, identifying potential blood donor and planning for preparation of materials was very low.

The highest source of information for BP/CR was health care provider (72.7%).

Awareness about danger sign during labor and delivery was good.

Having encouraging factor for BP/CR in general was good. However, there were some obstacles still hinder women not to prepare for birth and ready for its complication.

Recommendation

It is better the local health offices to arrange community based education and empowering women by expanding educational opportunities as they are important enhancing factor for birth preparedness and hence reducing the effect of pregnancy related complications

ANC clinics shall give due emphasis to preparation for birth and its complication and provide information about danger sign of pregnancy to all pregnant women.

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