

## **Birth Preparedness among Mothers in Selected Health Care Facilities in Ado-Ekiti, Ekiti State, Nigeria: A Cross-Sectional Study**

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### **ABSTRACT**

During pregnancy, delays which lead to maternal and neonatal mortality are commonly attributed to failure in the utilization of available maternal health care services, as well as failure to prepare for potential complications related to childbirth. Hence, this study was carried out to determine women's childbirth preparedness in selected health care facilities in Ado-Ekiti, Ekiti State. A descriptive cross-sectional design with the use of an adapted semi-structured questionnaire was employed. One hundred and eighty-eight (188) pregnant women who were selected through stratified sampling technique participated in the study. Data were analyzed and presented using descriptive (frequency, percentages and means) and The Fisher's exact test was used for observed differences and relationships between study variables. Findings from the study showed that majority of the participants were within ages 25-34 years and 49.7% of the participants have had two to three pregnancies. More than half (58.6%) of participants knew their expected date of delivery while 78.7% affirmed that severe vaginal bleeding is a danger sign in pregnancy. However, only 13.9% of participants planned for a blood donor in case of emergency. Although participants had adequate knowledge (60.1%) on birth preparedness, a lesser percentage (53.7%) had good practice. There was a statistically significant relationship between practice of birth preparedness and past childbirth experience ( $p$ -value=0.036 which is  $<0.05$ ). From the study, the overall proportion of women who prepared for birth was found to be low. Hence, education of women and their significant others on the elements of birth preparedness and their importance during pregnancy and childbirth might increase women's birth preparation thereby promoting safe maternal and child health.

Keywords: Birth preparedness, pregnancy, knowledge, practice, maternal

### **INTRODUCTION**

Childbirth is an important time in the life of a mother and her family, and generally, it is globally seen as a period of major celebration in families (Cook and Loomis, 2012; Alabi, 2018). However, pregnancy and delivery are still viewed as dangerous journeys in many developing countries (Gebresilase, 2014; Nsemo, 2016; Alabi, 2018). Most families do not plan for pregnancy and childbirth nor do they expect an emergency to occur, hence, when complications arise, the family is unprepared, and while gathering funds, finding transportation and reaching the appropriate health facility, time is usually wasted and, in many cases, it will be too late (Makunyi, 2014).

Birth preparedness is a safe motherhood strategy that aims at promoting the timely utilization of skilled maternal and neonatal care during childbirth or in obstetric emergencies, by reducing delays in labour and delivery process which contributes to maternal mortality (Kaso and Addisse, 2014; Ijang et al., 2019). The concept of birth preparedness includes knowledge of women regarding danger signs during pregnancy and childbirth, planning for a skilled attendant at birth, selecting an appropriate birth location, arranging transportation, identifying a blood donor, and saving money in case of an obstetric complication (Suglo and Siakwa, 2016; Limenih, Belay & Tassew, 2019).

Birth preparedness is a comprehensive strategy to improve the use of skilled healthcare providers during pregnancy and childbirth, and its key intervention is to reduce maternal mortality. It is considered as a useful and practical intervention with several advantages. It has been commonly documented that improvement in the accessibility to health facilities, availability of equipment, supplies, and skilled health care workers decrease maternal mortality (Zepre and Kaba, 2016; Asrat et al., 2019). However, birth preparedness is a vital approach to improve utilization of maternal health

services by planning for normal birth and predicting actions needed in case of emergency (Zepre and Kaba, 2016; Ijang et al., 2019). Birth preparedness uses an approach whose goal is to raise awareness regarding the components of birth preparedness at the community level (Makunyi, (2014). World Health Organisation recommends that pregnant women should have a written birth plan which deals with unexpected adverse events, such as complications or emergencies that may occur during pregnancy, childbirth or the immediate postnatal period; this plan should be discussed and reviewed with a skilled attendant at each ante-natal assessment and at least one month prior to the expected date of birth (WHO, 2006; Makunyi, 2014).

Maternal morbidity and mortality are a serious public health burden (Nkwocha, Maduka & Diorgu, 2017). Maternal deaths are still high especially in sub-Saharan countries. It is estimated that greater than 90% of these deaths could be avoided even in the low-income countries (Zepre & Kaba, 2016; Sugho & Siakwa, 2016, Asrat et al., 2019). Various factors such as inadequate funds, poor transportation and distance have been seen to contribute to the delays which are thought to be the major cause of maternal mortality; these delays can be reduced if women are prepared for childbirth (Damian, 2013; Ijang et al., 2019). It is difficult to determine which woman will experience obstetric complications that may lead to maternal mortality or morbidity because every pregnant woman is at risk of unpredictable complications that can lead to injury or death to herself and newborn. Hence, pregnant women should be adequately prepared for birth, as birth preparedness has been identified as a single vital intervention in safe motherhood (Nkwocha et al., 2017). Birth preparedness promotes the utilization of maternal healthcare services by reducing the delay in making a decision to seek care, reaching the facility and receiving timely care (Sugho and Siakwa, 2016).

The main causes of such mortality are commonly attributed to the failure in the utilization of available maternal health care services during pregnancy and failure to prepare for potential complications in connection to delivery (Zepre & Kaba, 2016; Limenih, Belay & Tassew, 2019). A study on women's childbirth preparedness is necessary to assess the level of maternal birth preparedness based on the elements of birth preparedness and how it can effectively reduce the rate of maternal mortality and morbidity. This study aimed to investigate women's childbirth preparedness in selected health care facilities in Ado-Ekiti, Ekiti State, Nigeria. Findings from this study may assist in identifying the knowledge and awareness of women regarding birth preparedness, to identify the gaps, and proffer solution to creating more awareness through health educations at antenatal and postnatal clinics. The results of the study can also provide useful evidence for the design of programs and interventions to improve maternal and neonatal health in Ekiti State and beyond.

## **METHODOLOGY**

### **Research Design And Setting**

This study used a descriptive cross-sectional design with a quantitative approach. The study was carried out in a Basic Health and a Comprehensive Health Centre located in Ado-Ekiti, Ekiti State, Nigeria. The Health Centres are public health institutions with the aim of reducing maternal and child mortality at grass root level. The health personnel at the center include physician, nurses and midwives, community health extension workers, health attendants, laboratory technicians, dietician and pharmacists. Their services include maternal and child health care, management of chronic conditions and treatment for minor ailments.

### **Population And Sampling Technique**

The study was conducted among pregnant women attending antenatal clinic in the selected health care facilities in the study area. According to the record obtained from the antenatal register of the centres, the estimated target population were 300 and stratified random sampling technique was used. The stratifying attribute for this study was the average number of clients seen per month by the health centres. The stratified random sampling technique is divided into three steps:

**Step 1:** Stratifying the sample frame into their constituent stratum.

**Step 2:** Decide on sample size and proportion of stratum.

**Step 3:** Draw simple random sample of required size from each stratum.

A sample sizes of 188 pregnant women were involved from the estimated total population of 300. Sample size was determined in the second step using Taro Yamane formula. Based on the strata, 113 and 75 pregnant women were selected from the Comprehensive Health and Basic Health Centres, respectively. The inclusion criteria for the study include, being pregnant, attending antenatal clinics in selected health care centres and the willingness to participate in the study.

### **Instrument And Data Collection**

The research instrument was an adapted semi-structured questionnaire which was developed from two previous studies (Damian, 2013; Kumadi, 2015). The questionnaire was designed in English language with 33 questions. The questionnaire comprises of five sections: section A, B, C, D, and E. Section A, focused on the socio-demographic variables Section B assessed women's past childbirth experiences, Section C assessed women's level of knowledge on birth preparedness, Section D assessed level of practice of birth preparedness among women while Section E considered the factors influencing birth preparedness, and each section correlates with the research objectives. The questionnaire was self-administered to 188 pregnant women.

### **Validity And Reliability Of Instruments**

The validity was based on face and content validity. To establish reliability, the test-retest method was applied. The questionnaire was pre-tested on ten participants who had similar characteristics with the study participants. Three weeks later, the questionnaire was re-administered to same set of participants who took the pre-test, to measure the stability of scores across time. The reliability coefficient was calculated to test for the internal consistencies of response and to determine if the instrument is reliable for the study. The Kappa's coefficients generated were 0.752, 0.873 and 0.845 for the section C, D and E of the questionnaire, which were indications of good agreements.

### **Data Collection And Analysis**

Data were collected from the two selected health care facilities from November 2017 to January 2018. Study participants were met on their clinic days, they were politely asked to participate in the study by completing the questionnaire after obtaining both verbal and written consent. Guidelines for completion of the questionnaire were presented and participants were informed to tick where appropriate. The researcher waited for each respondent to complete the questionnaire to minimize loss, completed questionnaires were collected and collated.

Data were analyzed with Statistical Package for Social Studies (SPSS) version 22.0. Statistical analysis was made using descriptive statistics and Fisher's exact was used for test of relationship.

### **Ethical Consideration**

The study proposal was approved by the Research and Ethics Committee of Afe Babalola University. Also, approval to conduct the study was obtained from the Facility Managers of the Health Centres used for the study. Before questionnaires were administered to participants, their rights to full disclosure and self-determination were explained. Informed consents were obtained as the participants were informed of the purpose of the research, their rights to decide if they want to participate in the study or terminate their participation to ensure self-determination, and their decisions were respected. To ensure confidentiality of participants, with names or other forms of identification not required on the questionnaire, and confidentiality was ensured.

## **RESULTS**

### **Socio-Demographic Characteristics Of Participants**

Most of the study participants 59.0% (111) were within the age range of 25-34 years. There were 59.9% of participants with tertiary educational qualification while 50.0% of them were self-employed. The majority of the participants 93 (49.7%) have had 2-3 pregnancies with 27.7% having a parity of two (Table 1).

**Table 1: Socio-demographic characteristics of participants (N= 188)**

Socio-demographic variable	Frequency	%
<b>Age (years)</b>		
15-24	54	28.7
25-34	111	59.0
35-44	22	11.7
45-49	1	0.5
<b>Religion</b>		
Christianity	156	83.0
Islam	32	17.0
<b>Marital status</b>		
Single	19	10.2
Married	166	88.8
Divorced	2	1.1
<b>Occupation</b>		
Unemployed	26	14.1
Self-employed	92	50.0
House wife	30	16.3
Civil servant	31	16.8
Others	5	2.7
<b>Number of pregnancies</b>		
Primigravida	70	37.4
2-3	93	49.7
4-5	18	9.6
6 and above	6	3.2
<b>Number of deliveries</b>		
Nulliparous	71	37.8
1	39	20.7
2	52	27.7
3	19	10.1
4	5	2.7
5	2	1.1
<b>How many live births?</b>		
0	69	36.7
1	47	25.0
2	53	28.2
3	13	6.9
4	4	2.1
5	2	1.1
<b>How many miscarriages?</b>		
None	170	90.4
1	14	7.4
2	3	1.6
4	1	0.5

**Past Childbirth Experience And Knowledge Of Birth Preparedness Of Participants**

The past experience of study participant showed that 10.7% (20) of study participants have had severe bleeding after delivery. There were 37 (19.7%) of participants who have had severe vaginal tear due to childbirth. Few of participants 5.9%, which exclude primigravida have experienced stillbirth in their previous pregnancies. However, 65.9% (89) of participants affirmed that their overall childbirth experiences were good while 27.4% (37) stated that theirs was fair (Table 2).

With respect to knowledge of study participants on birth preparedness, more than half (58.6%) of the participants were knowledgeable about their expected date of delivery. Majority of the participants 89.4% (168) stated 'yes' when asked if they that know antenatal care aids in preparing a pregnant

woman for safe delivery. Over 50% of participants reported loss/reduced fetal movement as a danger sign in pregnancy while 78.7% reported severe vaginal bleeding, 21.9% had no knowledge about these danger signs. (Table 3).

**Table 2: Past childbirth experience of the participants (N= 188)**

<b>Past childbirth experience</b>	<b>Frequency</b>	<b>%</b>
<b>Bleeding during pregnancy</b>		
Yes	17	9.0
No	171	91.0
<b>Prolonged bleeding during delivery</b>		
Yes	13	6.9
No	175	93.1
<b>Severe bleeding after delivery</b>		
Yes	20	10.7
No	167	89.3
<b>Gestational hypertension</b>		
Yes	13	7.0
No	172	93.0
<b>Severe vaginal tear</b>		
Yes	37	19.7
No	151	80.3
<b>Unresponsive newborn</b>		
Yes	11	5.9
No	177	94.1
<b>Fever due to infection</b>		
Yes	22	11.8
No	165	88.2
<b>Stillbirth</b>		
Yes	11	5.9
No	175	94.1
<b>Inevitable abortion</b>		
Yes	10	5.4
No	176	94.6
Missing data	2	
<b>Missed abortion</b>		
Yes	7	3.8
No	178	96.2
<b>Have you had any other negative experience with Childbirth?</b>		
Yes	8	4.4
No	175	95.6
<b>How was your overall childbirth past experience?</b>		
Good	89	47.3
Fair	37	19.9
Bad	9	4.8
None	53	28.2

**Table 3: Knowledge of birth preparedness (N= 188)**

<b>S/N</b>	<b>Birth preparedness</b>	<b>Responses</b>	<b>Frequency</b>	<b>%</b>
1.	Do you know your Expected Date of Delivery?	Yes	109	58.6
		No	50	26.9
		Not sure	27	14.5
2.	Do you know antenatal care aids in preparing a pregnant woman for safe	Yes	168	89.4
		No	15	8.0

	delivery?	Not sure	5	2.7
3. In your opinion, do you think women should do the following to prepare for birth?				
	a. Identify place of delivery and a reliable mode of transportation.	Yes	177	94.1
		No	10	5.3
		Not sure	1	0.5
	b. Save money and prepare essential items for clean delivery and after birth period.	Yes	183	97.3
		No	3	1.6
		Not sure	2	1.1
	c. Identify skilled care provider	Yes	164	87.2
		No	15	8.0
		Not sure	9	4.8
	d. Arranging blood donors	Yes	75	40.5
		No	78	42.2
		Not sure	32	17.3
	e. Being aware of the danger signs in pregnancy and the need to act immediately.	Yes	152	80.9
		No	25	13.3
		Not sure	11	5.9
	f. Designates other people like husband or relatives to make decisions for her in case of emergencies	Yes	141	75.0
		No	24	12.8
		Not sure	23	12.2
4. Are the following considered danger signs during pregnancy, labour and postpartum (after birth)?				
	a. Swelling of the face/ hand or both	Yes	130	69.1
		No	48	25.5
		Not sure	10	5.3
	b. Blurred vision	Yes	119	63.3
		No	46	24.5
		Not sure	23	12.2
	c. Cessation of fetal movement	Yes	101	53.7
		No	62	33.0
		Not sure	25	13.3
	d. Severe vaginal bleeding	Yes	148	78.7
		No	38	20.2
		Not sure	2	1.1
	e. Prolonged labour of more than 18 hours	Yes	121	65.1
		No	48	25.8
		Not sure	17	9.1
	f. Pain (epigastric, abdominal, uterine)	Yes	130	69.5
		No	41	21.9
		Not sure	16	8.6

Generally, analysis of the participants' level of knowledge on birth preparedness indicated that the majority of them (90%) had fair or good level of knowledge (Fig. 1).

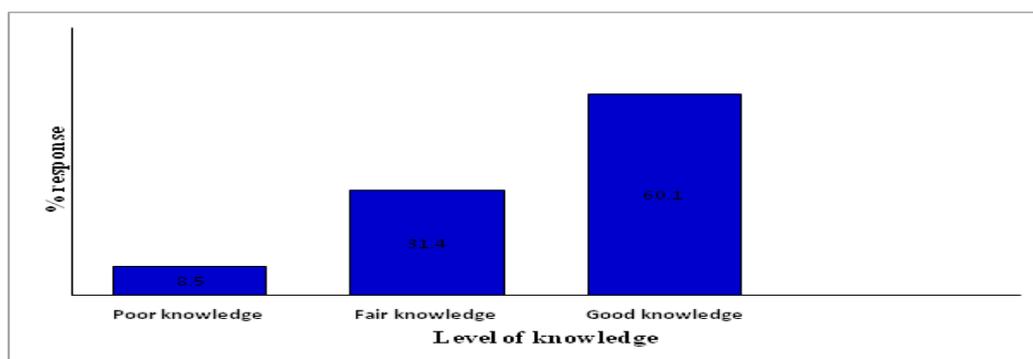


Figure 1: Participants' level of knowledge on birth preparedness

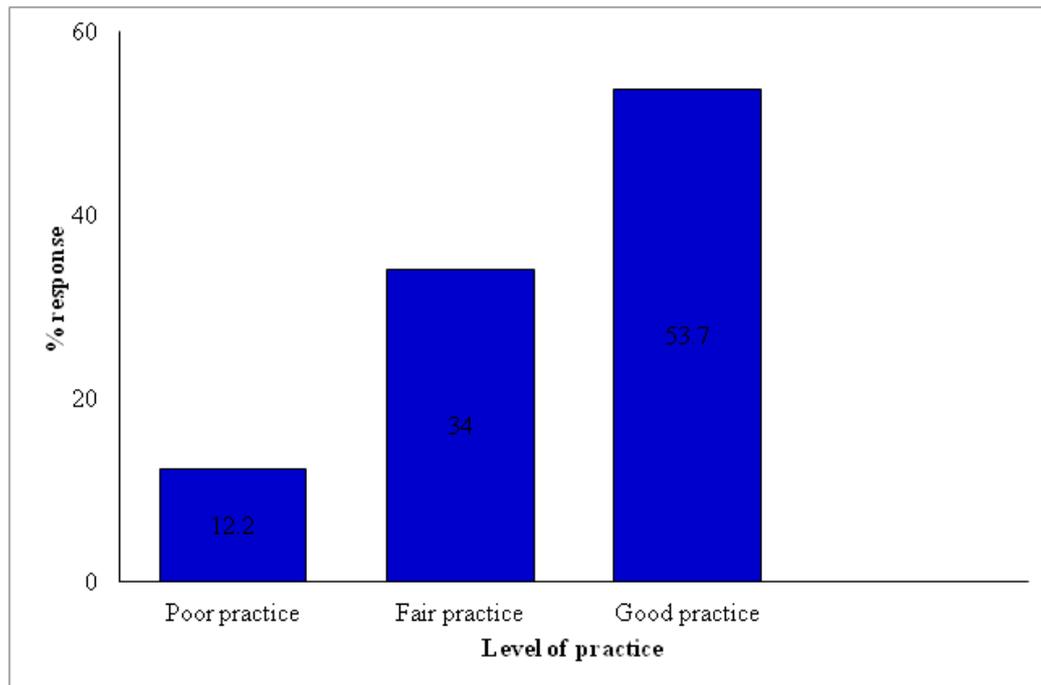
**Practice And Factors Affecting Birth Preparedness**

Majority of the participants 177 (94.7%) identified a readily available place of birth with 96.1% (174) planned to deliver in a health facility. Few of the participants 10 (5.3%) have not identified a readily available place of birth of these 10 participants, 44.4% claimed their reason was because it is expensive to deliver in health facility. However, majority of study participants 169 (90.4%) indicated they were saving money for childbirth, 42.2% were not knowledgeable about birth preparedness (Table 4).

**Table 4: Participants' practice of birth preparedness (N= 188)**

S/N	Birth preparedness			
		Responses	Frequency	(%)
1.	Have you identified a readily available place of birth?	Yes	177	94.7
		No	10	5.3
2.	If Yes, where do you plan to deliver? Health facility	Yes	174	96.1
		No	7	3.9
3.	Home	Yes	5	2.8
		No	176	97.2
4.	Traditional birth home	Yes	1	0.6
		No	180	99.4
5.	Mission homes	Yes	6	3.3
		No	175	96.7
6.	If no, why The facility is far from here	Yes	4	44.4
		No	5	55.6
7.	No transport to the facility	Yes	1	11.1
		No	8	88.9
8.	It is expensive to deliver in a facility	Yes	4	44.4
		No	5	55.6
9.	Health services provided are poor	Yes	2	22.2
		No	7	77.8
10.	I will be helped by my relative	Yes	3	33.3
		No	6	66.7
11.	Have you identified a reliable means of transportation to the place of delivery in case of labour or emergencies?	Yes	145	77.5
		No	42	22.5
12.	Have you identified a skilled health care provider?	Yes	142	76.3
		No	44	23.7
13.	Are you saving money?	Yes	169	90.4
		No	18	9.6
14.	Have you planned for someone to donate blood for you?	Yes	26	13.9
		No	161	86.1
15.	Have you prepared essential item for clean birth?	Yes	159	85.0
		No	28	15.0
16.	If Yes, which item have you prepared?			
	a. Sterile Gloves	Yes	135	73.4
		No	49	26.6
	b. Cord clamp	Yes	111	59.7
		No	75	40.3
	c. Mackintosh	Yes	135	72.6
		No	51	27.4
	d. Baby's wears	Yes	159	85.0
		No	28	15.0
	e. Sanitary pad	Yes	141	75.4
		No	46	24.6

Generally, the overall level of practice of birth preparedness by the participants revealed that 53.7% (101) had good practice, 34.0% (64) fair practice, while 12.2% (23) had poor practice.



**Figure 2: Level of practice of birth preparedness by the participants**

On factors affecting birth preparedness, more than half (55.3%) affirmed that their educational qualification has influenced their preparedness for childbirth while 44.7% are stated that their educational qualification has not influenced their preparedness for childbirth. Also 55.9% participants disagreed that past experience with previous childbirth has influenced their preparedness for childbirth.

**Table 5: Factors affecting birth preparedness among participants (N= 188)**

S/N	Factors	Responses		
		Responses	Frequency	%
1.	Has your educational qualification influenced your preparedness for childbirth?	Yes	104	55.3
		No	84	44.7
2.	Does your spouse/ partner decide where you deliver?	Yes	144	76.6
		No	44	23.4
	If no, please state who decides	We both decide	5	2.7
		I decide	14	7.4
		Mother	4	2.1
3.	Does your past experience with previous childbirth influence your preparedness for childbirth?	Yes	78	41.5
		No	99	52.75.9
		None	11	
4.	Has financial constraints influenced your preparedness for child birth?	Yes	56	30.1
		No	130	69.9
5.	Has poor road networks influenced your accessibility to the health facility?	Yes	71	38.0
		No	116	62.0
6.	Does distance influence how frequent you attend antenatal clinics?	Yes	64	34.2
		No	123	65.8
7.	Does the services provider by health workers affect your decision on receiving care and attending antenatal clinics?	Yes	82	43.6
		No	106	56.4

In general, the study revealed no significant relationship ( $p= 0.05$ ) between parity and the practice of birth preparedness among women. Of all participants with a parity of 3 deliveries, only 36.8% had good practice of birth preparedness.

With respect to relationship between practice of birth preparedness and educational level of the participants, a significant relationship ( $p= 0.05$ ) was observed. Majority of the women (72.7%) with primary school education have fair practice of birth preparedness while 34.7% and 67% of participants with secondary and tertiary educational qualifications, respectively had good practice of birth preparedness.

In addition, there was a significant relationship ( $p= 0.05$ ) between practice of birth preparedness and past childbirth experience. Of all the participants with fair childbirth experiences, 43.2% have good practice of birth preparedness while 66.7% of participants with bad birth experiences have good practice of birth preparedness.

## DISCUSSION

The socio-demographic characteristic of participants revealed that with respect to age distribution of participants, 59.0% were within the age range 25-34 years; this result is similar to findings of a study in Ethiopia by Biftu, (2015), where 47.4% were within the age range 25-31. Also, 88.8% of participants were married, this is also similar to the findings obtained by Bitew, Awoke and Chekol (2016) with 93.5%.

In this study, 59.9% of participants had tertiary educational qualification, similar findings were observed by Ukaegbu, Nwokeukwu and Uzochukwu, (2014), as majority (60.1%) of their study participants had tertiary educational. More importantly, this study showed a significant relationship between the practice of birth preparedness and educational qualification of participants, as those with complete primary school education had fair practice of birth preparedness while those with a secondary or tertiary educational qualification have good practice of birth preparedness. This may be due to the fact that women who are educated are more likely to be well informed and possess better potential to make better choices (Makunyi, 2014; Bongdap and Dapan 2016). An increase in the literacy level is opined to increase the likelihood of women to prepare for birth (Damian, 2013; Ukaegbu et al., 2014; Limenih, Belay & Tassew, 2019). Some of the individual factors for birth preparedness include maternal education and women empowerment, obstetric factors, distance, transportation, male involvement and funds (Bongdap and Dapan, 2016). According to Biftu (2015), maternal education is the most important determinant aspect of obstetric care utilization.

In addition, it is stated that obstetric factors, such as parity and history of still birth may also influence a woman's birth preparedness. Women with parity of between 2 to 4 are indicated to be more likely prepared for birth and its complication than primiparous women. Also, women with history of still birth are more likely to prepare for birth and its complication than those who had not experienced still birth (Makunyi, 2014; Ubong and Udeme (2017). These observations were similar with this study as past experiences of study participant showed that some women have had previous complications such severe bleeding, extensive vaginal tear and still births. This study also revealed a significant relationship between practice of birth preparedness and past childbirth experience. This finding is in contrast with findings reported by Ubong and Udeme (2017) which stated that 16.6% identified previous experience as facilitator to birth plan preparedness.

The birth preparedness and complication readiness matrix includes knowledge of women regarding danger signs during pregnancy and child birth, planning for a skilled birth attendant and birth place, arranging for transport in case of an emergency, saving money for the obstetric care and complications and identification of a compatible blood donor in case of an emergency condition (Khyati, Abha and Sumit, 2016). Participants' level of knowledge on birth preparedness revealed that only 58.6% know their Expected Date of Delivery (EDD), this finding is similar to the result of Kumadi (2015) where 67.9% of participants were aware of their EDD. In his study, 94.1% of participants were knowledgeable on the identification a place of delivery and a reliable mode of transportation. This finding is in contrast to the findings by Damian (2013) were only 12.0 % were knowledgeable about the identification of place of delivery while 26.7% have knowledge regarding identification of transport in case of emergency and during labor. Also, in this study, majority of the

study participants (87.2%) have knowledge regarding the identification of a skilled care provider. On the arrangement of blood donors, 42.2% were not knowledgeable about blood preparation as part of birth preparedness and only 13.9% of the participants have made adequate plans for blood donation. The finding is however higher than what Damian (2013) obtained from his study where only 14.8% of participants mentioned arranging a blood donor, as an element of birth preparedness. Similar findings were also noted by Deogratius, Mohamed and Mpembeni (2015), which stated that 17.5% of respondents identified two potential blood donors.

On participants' knowledge of danger signs, only 53.7% considered cessation of fetal movement as a danger sign in pregnancy, this correlates with finding obtained by Kumadi (2015) which indicated that 51.1% of participants reported loss/reduced fetal movement as a sign in pregnancy. Majority of the participants (78.7%) reported that severe vaginal bleeding is a danger sign, however, this is slightly higher than the findings by Kumadi (2015) where 64.6% of participants had no idea that hemorrhage is a danger sign in pregnancy. In determining participants level on knowledge, an overall analysis revealed that 60.1% had good knowledge while 31.4% had fair knowledge and 8.5% had poor knowledge on birth preparedness. These differs from the study conducted by Ukaegbu, Nwokeukwu and Uzochukwu (2014) where only 36.0% of participants had moderate knowledge while 32.7% had good knowledge.

Kaur et al. (2015) indicated that birth preparedness assists pregnant women to acquire skills and confidence needed to make childbirth a positive experience as it dissolves fears and makes pregnancy memorable. In preparing for childbirth, the woman knowingly or unknowingly develops a birth plan (Cook and Loomis, 2012). It has been previously observed that women with improved knowledge on birth preparedness leads to better preparedness for childbirth (Kabakyenga et al. 2011; Ukaegbu et al. 2014). Almost all the participants in this study had plan to be delivered in a health facility while over two thirds indicated they had made adequate transportation arrangement to convey them to a health facility for delivery. These are evident of good delivery decision, which is a vital aspect of birth preparedness (Sabageh et al. 2017).

Making plans for a reliable mode of transportation is very essential because, although most expectant mothers usually plan to deliver in health care facilities, which they must have identified, lack of adequate transportation arrangement make them to deliver outside the health facilities. A proper transport arrangement could reduce or completely eliminate any delay in arriving at a health care facility, especially in emergency situation where time is vital to survival (Sabageh et al. 2017).

As part of birth preparedness, an expectant mother ensures the readiness and prompt utilization of skilled maternal and neonatal care. The presence of skilled birth attendant and availability of emergency obstetric care, which are available in a health facility has shown to lead to great decline in maternal mortality due to obstetric complications (Sabageh et al. 2017). Expectant mothers, their families and communities are encouraged to effectively plan for births and deal with any perceived emergencies if they occur (Sabageh, 2017). In this study, majority of the study participants (76.3%) have identified skilled care provider. This finding is similar to findings obtained by Khyati, Abha and Sumit, (2016) where 88% of participants have identified a skilled care provider. This finding also corroborates with findings by Deogratius, Mohamed and Mpembeni (2015) in Tanzania, where 77.8% of participants have identified a skilled birth attendant. However, the National Population Commission (2014) stated that only 38% of births are attended by Skilled Birth Attendants in Nigeria.

Generally, the overall level of practice of birth preparedness by the participants in the study revealed that only 53.7% had good practice. This is slightly lower to 58.2% and 62.2% reported in similar studies Biftu (2015) and Deogratius, Mohamed and Mpembeni (2015). However, findings reported by Kaso and Addisse (2014) in Robe, Central Ethiopia with only 16.5% and another study conducted by Makunyi (2014) in rural areas in Tharaka, Kenya, where only 20% of the participants were prepared for child birth. This contrast might be because this study was conducted among urban women.

Barriers that affects the practice of birth preparedness as mentioned by the participants include educational qualification and spouse decision. As stated by Bongdap and Dapan (2016), men are often invested with the power to determine what their wives do or fail to do, hence, they often have control over access to and utilization of maternal health services. Majority of the participants in this study

stated that their spouses decide where they will deliver. This is also in line with the statement of Ukaegbu, Nwokeukwu and Uzochukwu (2014) that the role of the husband affects birth preparedness. Hence, education of women and their significant others especially their spouses on the elements of birth preparedness and their importance during pregnancy and childbirth might increase women's birth preparation thereby promoting safe maternal and child health.

### **CONCLUSION AND RECOMMENDATIONS**

The findings from this study confirmed that majority of women have good knowledge on birth preparedness, but however, the level of practice did not correspond to the percentage of participants with good knowledge, as only about half of the participants had good practice of birth preparedness. This means that there are some factors influencing their practice of birth preparedness. Educational status and spouse influence were observed to be factors affecting the implementation of birth preparedness.

Based on the findings from this study, there is need for continuous and intensive education on the importance of birth preparedness, most especially at the ANC clinics and in community outreaches by healthcare professionals especially nurses and midwives in order to maintain and improved women's preparedness. Health care providers should also actively involved male partners in reproductive health of women. They should be encouraged to positively support their partners, and encourage them on the utilization of health care facilities especially during pregnancy.

Lastly, education of women has been linked to their effective utilization of reproductive health services thus, women and girl's empowerment programmes should be incorporated into the safe-motherhood initiative.

### **Limitations Of The Study**

The study was limited to women attending antenatal clinics in the two selected health centres in Ado-Ekiti hence, the findings of the study may not be generalized.

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### **Conflicts Of Interest**

The authors declare no conflict of interest.

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