

# Community Members' Knowledge, Perception And Health Seeking Behaviour On Preterm Birth In Bawku Municipality Of Ghana.

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**Abstract:** Neonatal mortality has remained astronomically high globally and most of these deaths are from Sub-Saharan Africa (SSA). Preterm birth is associated with a higher risk of neonatal deaths and accounts for about 31% of neonatal deaths in Ghana. The objective of the study was to explore the perceived causes, knowledge and health-seeking behaviour of preterm birth among community members in Bawku Municipality of Ghana. A total of 11 Focus Group Discussions (FGDs) were conducted with the following study participants: women groups (n = 6) and men groups (n = 5) making a total of 67 participants. In-Depth Interviews (IDIs) were also conducted for 50 participants comprising mothers of preterm newborns (n = 21), Traditional Birth Attendants (TBAs) (n = 9), Grandmothers of preterm babies (n = 13) and grandfathers of preterm babies (n = 7) using discussion guide. Recognition of preterm/baby included a baby born with gestational age less than 9 months, low weight (baby born with weight less than 2.50kg), frail and skinny, floppy, lack of eyelashes and nails, transparent body among others. Perceived causes were teenage pregnancies, unsafe abortions, weak sperms of men, prolonged use of family planning method, extra marital sex by the father and witchcraft. Severe signs or symptoms which pose the critical need for care seeking prompts parents/caregivers to seek health care for their preterm babies such as convulsions, lethargy, severe diarrhoea and vomiting, localized infections and refusal to suck. The study participants were able to recognise preterm babies with various descriptions and reiterated that prematurity was a major health challenge which needed holistic care. Most study participants are aware of some of the causes of preterm births but the belief in supernatural causes was pervasive. Stepping up a sustained health education campaign on preterm birth in health facilities and communities is therefore strongly recommended.

**Keywords:** Preterm, Bawku Municipality, recognition of preterm birth, health seeking behaviour.

## 1. INTRODUCTION

The 2030 Sustainable Development Goal (SDG) 3 target 3.2 – of reducing neonatal and under-5 mortalities to as low as 12 per 1,000 live births and 25 per 1,000 live births respectively by 2030 [1] will be a mirage without reducing newborn mortality rates. Reducing preterm deaths is very critical part of reducing neonatal mortality since prematurity and low-birth weight are direct causes of 28% of global neonatal mortality [2]. About 15 million babies globally are born premature and more than one million of them die immediately after they are born [3]. About 99% of these deaths occur in the low and middle-income countries due to complications. These births are mostly from Sub-Saharan Africa (SSA) and South Asia due to lack of live supporting equipment in health facilities to care for them. Ghana ranked 14<sup>th</sup> and 25<sup>th</sup> for world preterm birth rates in 2010 and 2013 respectively and the number of deaths due to preterm birth complication was 7, 200 (31% of neonatal deaths) in 2013 [4]. About three-quarters of these babies could be saved if proven and less expensive management and prevention options are translated into practice [3]. Preterm babies are babies born before 37 completed weeks of pregnancy or gestation regardless of gestational age or birth weight [5]. Preterm babies are high-risk neonates and their levels of growth and development are less than normal neonates regardless of their gestational age or weight. Premature babies are born before they are physically prepared to survive within the external environment and therefore often

require special care. These babies face a countless risk of severe health problems such as intellectual impairment, cerebral palsy, vision and hearing impairment and chronic lung disease. Many of these preterm babies who are fortunate to have survived face lifetime disability, which exerts a heavy burden on families, communities and the health systems. Recognition of early health problems has been proven to improve health outcomes due to the early seeking of medical care. Information on community perception of causes, beliefs and care seeking of preterm babies is very important for child health programmes aiming at preterm newborn improvement at the community level. In Malawi, preterm babies are recognised by pregnant women delivering those babies before nine (9) months of pregnancy by counting from the last menstrual period [6]. In this study, Traditional Birth Attendants (TBAs) and grandmothers recognised common signs of preterm babies as skin being too soft, having many wrinkles, transparent and weak, breathlessness, small body size, sunken forehead, underdeveloped nails, inability to breastfeed, baby body looks watery, inability to pass stools, few hairs and eyelashes [6]. Another study in Malawi indicated that mothers, fathers, and grandmothers recognise preterm birth by the number of “months of pregnancy [7]. Some of the features of prematurity as mentioned by men during the FGD in the study were; baby very small at birth, inability to suckle, inability to open eyes at birth, wrinkled skin, babies look pale and their skin looks similar to newly born rats [7]. Another study conducted in Malawi stated that the number of

months of pregnancy was also a key factor in recognising prematurity or 'born too soon' [8]. In the African setting, beliefs related to abnormal births are always related to the influence of supernatural phenomena. In Uganda by [9] reported that low birth weights of neonates are believed to have been caused by physical and supernatural influence. One key physical phenomenon mentioned in the study by mothers of low birth weights was earthquake tremors that could cause premature labour and hence baby born with low birth weight. Also, the study reported supernatural beliefs to include magic powers from trees and ancestral annoyance. In Malawi, perceived causes of preterm birth as reported by participants were categorised into two factors; general social factors and maternal factors during pregnancy [6]. Some of the perceived causes related to maternal factors during pregnancy as mentioned by participants included the following: not eating enough and good quality food, doing excessive household chores, frequent illness during pregnancy, wives being beaten by husbands whilst they are pregnant, previous abortions, early and late childbearing and having family history of preterm births. Women participants during FGD stated that giving birth to so many babies by a woman could lead to the over utilization of the uterus especially if up to eight or more babies; and this could lead to preterm birth. Another important perceived cause related to maternal factors highlighted in their study was illnesses during pregnancy especially sexually transmitted infections (STIs) such as gonorrhoea, syphilis and HIV/AIDs) if left untreated. Other maternal illnesses/conditions during pregnancy they also mentioned that could cause preterm birth included malaria, anaemia, asthma and high blood pressure. Preterm babies are highly vulnerable in terms of morbidity and mortality than term babies. Early health care seeking whether curative or preventive is very important for these babies to reduce morbidity and mortality. Delay in seeking appropriate care and not seeking any care contribute to a large number of preterm babies death. Existing interventions could prevent deaths among preterm babies if they are presented for appropriate and timely care. Though ample research work has been done on newborn health, there is still limited work done on community members' knowledge, perception and health-seeking behaviour on preterm birth that is key for enhancing the survival of these delicate or fragile babies in resource- constraint settings like northern Ghana. Therefore the objective of the study was to explore the perceived causes, knowledge and health-seeking behaviour of preterm birth among community members in Bawku Municipality of Ghana.

## 2. MATERIALS AND METHODS

The study took place in the Bawku Municipality of the Upper East Region of Ghana which is located approximately between latitudes 11° 11" and 10° 40" North and longitude 0° 18" W and 0° 6" E in the north eastern corner of the Region. It shares boundaries with Pusiga District to the North, Binduri District to the South, Garu -Tempene District to the East and Bawku West District to the West, and has a total land area of 247.23720 sq.km. The study was a qualitative study to describe community members' perception of causes, beliefs and care seeking of preterm babies/births in the Bawku Municipality of the Upper East Region of Ghana. The study used explorative descriptive study design to collect qualitative data from parents of preterm babies,

traditional birth attendants, grandfathers and grandmothers of preterm babies on the knowledge, perception, and health-seeking behaviour on preterm births. A total of 11 focus group discussions were conducted with the following study participants: women groups (n = 6) and men groups (n=5) making a total of 67 participants. In-depth interviews were also conducted for 50 participants comprising mothers to preterm newborns (n = 21), TBAs (n = 9), Grandmothers of preterm babies (n = 13) and grandfathers of preterm babies (n = 7). Discussion guides were used to for the focus group and in-depth interview sessions. Data collection took place between October 2016 and February 2017. Content analysis was used to analyze the data.

## 3. RESULTS

### 3.1 Recognition of preterm newborns

The study participants mentioned that a preterm baby is one born before the pregnancy lasted for nine months and they determined their status by counting the number of months from their last menstrual period. Most of the study participants during both FGDs and in-depth interviews also reported that most premature babies are small and have low birth weight but are not able to mention the cut-off point of low birth weight. One mother of a preterm baby had this to say: "Immediately my baby came out, I realized it was almost like the size of a lizard and hairless. I was sweating under the fan and I knew it was obviously not at term baby".

#### IDI, mother of a preterm baby.

Another way participants used in recognising preterm babies is by looking at their physical appearance. Some of the participants had these to say: "Babies who are born preterm looks frail, skinny, soft with wrinkles and you will have no doubt knowing that it is a preterm baby"

#### IDI, Grandmother of a preterm baby.

"When a baby is born without nails, looking extraordinarily small and appears transparent like plain rubber or water is definitely a premature baby and these are the features that inform us grandfathers to know that the baby born is premature".

#### IDI, Grandfather of a preterm baby.

During one of the FGDs of the mothers, a mother had this to say as an observation of her own preterm baby immediately after birth: "Preterm babies after delivery cannot breathe well, they have no eyelashes, their foreheads are sunken, floppy and not able to breastfeed. I was scared seeing such a baby born but the nurses reassured me of it possible survival under proper care".

#### FGD, Mother of a preterm baby.

### 3.2 Knowledge of causes of preterm birth

In the African setting and more especially in northern Ghana, there are numerous perceived causes of many health related issues that cannot be explained by modern medicine and science. These beliefs may have negative health seeking behaviours and trying to understand them will help health practitioners to model strategies to demystify their perceived beliefs, thereby enhancing health outcomes. During the IDIs and FGDs, participants enumerated many causes of preterm

birth that can be conveniently classified into maternal, paternal and social causes. Maternal causes are related to factors during pregnancy, paternal causes are factors believed to be from the father, and social causes are perceived as general factors. Some of the maternal factors commonly mentioned by the study participants during IDIs and FGDs are; eating inadequate and poor quality food during pregnancy, severe sickness during pregnancy, trauma to the abdomen during pregnancy, when a pregnant mother eats certain foods, previous unsafe abortions, habit of overworking during pregnancy, early and late marriage/deliveries, as well as hereditary factors. During IDIs with the fathers, early marriages/early childbearing was a common item mentioned and was the major cause of preterm births. A father had this to say; “Early marriages and teenage pregnancies are serious problems in the rural communities nowadays and causing these premature births. When a girl is not matured, the womb cannot contain the unborn baby up to the nine months as expected because it is not matured yet”.

**FGD, father of a preterm baby.**

During the preterm babies FGD, participants further explained that, unsafe abortions can lead to the womb having wounds inside and can reject the baby in the womb earlier than the nine months of gestation. They also reported that frequent abortions can cause cervical incompetence and when the unborn baby grows bigger, the cervix cannot hold it. “Women causing unsafe abortions frequently that now appears as fashion suffers the consequences giving birth to premature babies since frequent abortions cause wounds inside and the cervix openings results in the inability of the womb to contain and hold the growing baby. This is a serious problem nowadays!”

**FGD, Mother of a preterm baby.**

Furthermore, IDIs among TBAs also came up with the most trending factor as a paternal cause of preterm birth is when a father has “weak/low sperms” and impregnates his wife will cause preterm delivery. “Men with weak sperms produces premature and weak babies and therefore such men should always seek herbal treatment to strengthen the sperms before marrying or impregnating their wives. The weak sperms are not matured enough to make the baby mature”.

**IDI, TBA.**

Another interesting issue mentioned by a grandmother of a preterm baby during IDI was STIs such as syphilis, gonorrhoea and HIV/AIDs being some of the causes of preterm births if not treated. “When a pregnant mother has STIs especially gonorrhoea, syphilis and HIV/AIDs, those small small organisms travels to the womb and if not properly treated can be transmitted to the unborn baby. The infected baby in the womb cannot stay with the disease and will naturally force itself out before it is mature”.

**IDI, Grandmother of a premature baby.**

**Table:1 Perceived causes of preterm births**

Table:1 Perceived causes of preterm births	
<b>Maternal factors</b>	Frequent abortions
	Early and late marriages/deliveries
	Eating inadequate and poor quality food when pregnant
	Sexually transmitted infections (HIV, hepatitis, gonorrhoea, syphilis)
	Giving birth to too many children
	Trauma to the abdomen during pregnancy
	Over working and doing hard work during pregnancy
	Hereditry
	Multiple pregnancies
	Prolong use of family planning methods
Not spacing births	
<b>Paternal Causes</b>	Fathers having weak/low sperms
	Husband having sex outside marriage when his wife is pregnant
<b>Social causes</b>	Having extra marital sex whilst pregnant
	Ancestral punishment
	Witchcraft
	Will of God
	Visiting a mother whose child died due to prematurity whilst pregnant

Source: Field survey, 2017

On the other hand, social causes mentioned by participants include; witchcraft, ancestral punishment, sexual promiscuity during pregnancy by the mother and among others as shown in **Table: 1**

**3.3 Beliefs related to causes of preterm birth**

Many of the participants during both FGD and IDI believed that the causes of preterm births are either mystical or natural phenomenon. Some of the beliefs on the mystical/supernatural causes mentioned are witchcraft, ancestral disagreements with the family due to disregards of what they require, powers of trees and rocks within the surrounding and very old animals such as dogs, pigs that live in the house. The following quotes were made by TBA, Grandmother, and mother of preterm baby; “The soothsayer we consulted on the birth of my daughter-in-law’s premature baby came out to be the cause of the 7 years old male dog in the house. If animals live for long in the house, they sometimes turn to be the family members and have sexual intercourse with women in the house and that was exactly what happened to my daughter in-law as revealed by the soothsayer”

**IDI, Grandmother of a preterm baby.**

“My father-in-law told me that, my husband was supposed to offer a black fowl as a sacrifice to his late mother who passed away 5 years ago to enable me to carry the pregnancy up to term as was seen by a soothsayer, but he refused because he claimed to be a Christian. This ancestral disagreement brought about my preterm delivery”.

**FGD, Mother of a preterm baby.**

“I have been a TBA for 20 years now and my belief about the cause of preterm birth is as a result of the activities of witches and wizards. I conducted so many premature deliveries and some of the mothers told me that, their rivals were the cause their predicaments”.

#### IDI, TBA.

#### 3.4 Determinants of preterm babies' health care-seeking.

Most of the mothers indicated that when they recognise signs or symptoms of severe illness that they seek health care for their preterm babies. Some of the signs and symptoms they mentioned included; convulsions, lethargy, severe diarrhoea and vomiting, localized infections, refusal to suck and hyperthermia. One of the mothers during IDI had this to buttress their assertions on care seeking of their babies: “I took my baby on several occasions to the hospital when I realised that she had high temperature and convulsions. On another occasion she was lethargic due to severe diarrhoea and vomiting and so weak that I thought she was going to die”.

#### IDI, Mother of a preterm baby.

## 4. DISCUSSIONS

### 4.1 Recognition of preterm newborns

The study findings identified three main domains that were considered in the recognition of premature babies. These were gestational age, baby weight/size and physical features or characteristics of the newborn. All the participants in the study mentioned that a baby born before nine (9) months is considered preterm. This finding was similar to those mentioned in other studies. In Malawi preterm babies are recognised by pregnant women delivering those babies before nine (9) months of pregnancy by counting from the last menstrual period [6], [8] and in Uganda they also recognise preterm birth by the number of months of the pregnancy [7]. Most of the study participants during both FGDs and in-depth interviews also mentioned that they recognise premature babies when they see that the babies are small and have low birth weight but are not able to mention the cut-off point of low birth weight. In Uganda, mothers, fathers, and grandmothers also mentioned that a baby that is very small at birth is considered preterm [7]. This, however, may be very difficult to determine preterm baby by using only birth weight since some preterm babies could weigh even more than 2.5kg and yet considered preterm. However, recognising preterm baby by birth weight or size is also important since low birth weight is a danger sign and whereby the mother will be prompted to seek medical care. The physical characteristics of a preterm baby were also mentioned by the study participants as a means to determine prematurity. They mentioned some of the physical features of prematurity as follows; breathlessness, absence of eyelashes, sunken forehead, floppy muscles, inability to breastfeed, and the baby appears white and transparent like plain rubber or water etc. This is in agreement with a study done in Malawi and Uganda where study participants indicated that they recognise common signs of preterm babies as skin being too soft, having many wrinkles, transparent and weak just like piece of paper, breathlessness, sunken forehead, underdeveloped nails, inability to

breastfeed, baby body looks watery, few hairs and eyelashes [6]. These descriptions of preterm babies' physical features by research participants suggest the health problems that these babies are at risk and thus making their survival crucial.

### 4.2 Knowledge of causes of preterm birth

In this study, the study participants were generally aware of the causes of preterm birth. The main causes as reported by the study participants were conveniently classified into maternal, paternal and social causes. Maternal causes are related to factors during pregnancy, paternal causes are factors believed to be from the father and social causes are perceived as general factors. These findings are also reported in similar several studies in Malawi and elsewhere as risk factors for preterm birth [6], [10], and [11]. The common perceived maternal causes reported in this study include; the mother eating inadequate/ poor quality food during pregnancy, frequent sickness during pregnancy, trauma to the abdomen during pregnancy, previous unsafe abortion, multiple pregnancies, not spacing births, habit of overworking during pregnancy, early and late deliveries and hereditary factors. It has also been reported that having a previous abortion, husband beating his pregnant wife, frequent illness, history of preterm birth in the family, a pregnant woman doing excess household chores, pregnant woman not eating good quality and enough food are causes of preterm birth [6]. Early pregnancies/deliveries that has been reported in the study as one of the maternal causes of preterm birth has been documented to have had public health consequences to the mother and baby globally. Similar findings were also reported in Dowa district in Malawi where 78% of the study participants were concerned about the increase in teenage pregnancies in the district [12]. Other several studies have also been reported of adolescents giving birth to premature babies as compared to adults [13], [14]. Maternal sickness as mentioned in the study was also reported by [7] on perceptions and care for preterm babies in eastern Uganda reported maternal diseases such syphilis, malaria and other medical complications to be related to causes of preterm births. The most common paternal causes as mentioned in this study by participants were weak or low sperms count and husband having extra marital sex when the wife is pregnant. These perceived causes as indicated have no association with the causes of preterm birth medically and therefore health education is very important to educate mothers, fathers and grandparents on the causes of preterm births. The social causes mentioned among the study participants were having extra marital sex whilst pregnant, ancestral punishment, witchcraft, God's will and a pregnant mother visiting another mother whose child died due to prematurity. It has been reported in Malawi that study participants mentioned social causes as witchcraft from a rival woman, God's will and earthquakes [7]. What the study participants believe to be the causes of premature birth will affect what they will do to prevent it in future pregnancies. Mothers who are ignorant of the factors that predispose premature birth could be helped to prevent premature birth in future by giving them health education on proper nutrition during pregnancy, family planning to improve on birth spacing and on prevention of diseases like malaria. Health education intervention would reduce the proportion of vulnerable neonates and in the long run reduce

neonatal mortality. Mothers with wrong beliefs would also be enlightened from the correct information during health education.

#### 4.3 Beliefs related to causes of preterm birth

The beliefs of the causes of preterm births as indicated by the study participants were either mystical or natural phenomenon. Some of the beliefs on the mystical/supernatural causes mentioned were witchcraft, ancestral disagreements with the family due to disregards of what they require, powers of “wicket trees” and rocks within the surrounding and very old animals such as dogs, pigs that live in the house. These findings were also reported in Uganda where study participants also mentioned the causes of low weight births to have been physical and supernatural influence such as earthquake tremors, magic powers from trees and ancestral annoyance [9]. These beliefs are quiet worrying as indicated by the study participants and may have a negative impact on health-seeking behaviour of the parents or guardians of preterm babies especially for those babies that may be delivered at home and will not immediately benefit from health education by health professionals.

#### 4.4 Determinants of preterm babies’ health care-seeking.

The study findings indicated that recognition of signs or symptoms which pose critical need for care seeking prompts parents/caregivers to seek health care for their preterm babies. Some of the signs and symptoms they mentioned included; convulsions, lethargy, severe diarrhoea and vomiting, localized infections, refusal to suck and hyperthermia. A study done in rural Bangladesh on determinants and pattern of care seeking for preterm newborns also reported similar findings such as recognised symptom of illness or sign of local infection and any form of birth injury to be factors that have had higher likelihood for a preterm baby to be taken for care-seeking by parents [15]. This observation of only seeking health care when a baby has very severe illness or condition could jeopardize the health of the baby since minor signs and symptoms could aggravate to severe illness if early care seeking is not sorted.

## 5. CONCLUSION

The study participants were able to recognise preterm babies with various descriptions and reiterated that prematurity was a major health challenge which needed holistic care. Most study participants are aware of some of the causes of preterm births but the belief in supernatural causes was so much influenced. The study also shows that caregivers seek health care for their preterm babies when they show signs and /symptoms of severe ill-health or birth injury which should not be the case. With regards to these findings, the best way to address the knowledge gap and negative beliefs surrounding preterm birth is by stepping up a sustained health education campaign on preterm birth in health facilities and communities. Home visits by community health workers should also be intensified for them to identify and support caregivers of preterm babies. The community health volunteers should also be given training on how to recognise preterm babies so that they can identify and refer such babies to health facilities in case they are delivered at home.

## ACRONYMS:

FGDs: Focus Group Discussions, IDIs: In-Depth Interviews, SDG; Sustainable Development Goals, STIs: Sexually Transmitted Infections, Sub-Saharan Africa, TBAs: Traditional Birth Attendants, UN: United Nations, WHO: World Health Organisation.

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