UNIVERSITY OF GHANA

MANAGEMENT OF 'ASRAM' IN ADAMOROBE IN THE AKWAPIM SOUTH DISTRICT.

BY

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DECLARATION

I hereby declare that, except for references to other people's work, which have been duly acknowledged, this dissertation is the result of my own research work carried out in the Department of Sociology, University of Ghana, Legon, under the supervision of Prof. Kodjo Senah and Dr. Ohene Kofi Konadu. Finally, I declare that all errors of misinterpretation and misrepresentation of data are solely mine.

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DEDICATION

This work is dedicated to God Almighty for the gift of intellect; to my husband, Mr. Selom Kodjo Kpikpitse and my children, Sena Koku Kpikpitse and Aseye Koku Kpikpitse, who have supported me through this journey with their love, care, money, and prayers; to my mother for her encouragement and support.

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ABSTRACT

Reduction in neonatal mortality has been steadily slow in most African countries including Ghana and remains a public health concern. "Asram", a locally known neonatal disease among the Akan speaking communities in Ghana has been identified as a major cause of neonatal mortality. Generally, this thesis sought to explore the knowledge, beliefs, and perceptions of 'asram' and how it is managed among families in Adamorobe in the Akwapim South District of the Eastern Region of Ghana. The study specifically sought to ascertain how mothers and caregivers described 'asram'- its indicators, beliefs and perceptions associated with the causes, treatment regimens and finally interrogated the healthcare seeking behavior of mothers and caregivers. Employing the sequential exploratory mixed methods approach, face- to- face interviews were first conducted with mothers and caregivers with 'asram' specific cases and focus group discussions. Some key informant interviews were also conducted with traditional healers, traditional birth attendants all in the study community and orthodox/ allopathic health practitioners from the community CHPS compound and referral hospitals. The study revealed that 'asram' was well known among the respondents as a major newborn disease which was categorized into different types: 'asram boreded wo'- malnutrition and 'asram abosomakotre'- pale/ anaemic. In addition, majority of the respondents strongly perceived 'asram' to be spiritually caused, whilst others taught otherwise, that is natural and both natural and supernatural which differs from that of Murdock's who believe the causes of illness are either natural or supernatural. It will be interesting to bring in sync local perceptions and orthodox perceptions as to what the causes of 'asram' are, and best to treat and manage newborns with 'asram' in the rural communities to ensure their survival.

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LIST OF ABBREVIATIONS

ADASL	Adamorobe Sign Language
ANC	Antenatal Care
CHN	Community Health Nurse
CHPS	Community-based Health and Planning Services
ECH	Ethics Committee for Humanities
GDHS	Ghana Demographic and Health Survey
GHS	Ghana Health Service
GSS	Ghana Statistical Service
MDG	Millennium Development Goal
MICS	Multiple Indicator Cluster Survey
NGO	Non- Governmental Organization
PNC	Postnatal Care
SDG	Sustainable Development Goal
TBA	Traditional Birth Attendant
UNDP	United Nations Development Plan
WHO	World Health Organization

CHAPTER ONE

HEALTH AND WELL- BEING OF CHILDREN

1.1 Introduction

A woman who had lost her preterm baby cried out in desperation: ...

"... Hmmm..., I said it! I told them! This is not a hospital sickness, let me take my son home for treatment, but the doctors and nurses did not believe me".

Table 1: An inscription at the Neonatal Intensive Care Unit at Nsawam Government Hospital reads:

Inscription	*English Translation*
Meye premature	*I am premature*
Meye onipa	*I am human*
Meye premature	*I am premature*
Me ho hia	*I am important*
Meye premature	*I am premature*
Metumi atenase	*I can live*
Meye premature	*I am premature*
Menni asram	*I do not have asram*

Source: Researcher's Fieldwork, 2018

The vignette and the inscription stated above underscore the difficulties households and the health institutions face in the management of childhood diseases: on one hand mothers see a particular childhood problem (asram) as a non- hospital condition, while hospital authorities convince mothers in the community that the hospital can manage such childhood conditions.

One of the greatest assets of every nation is its human resource. Drawing a relationship between health and development, health, just like any other developmental indicator like education, is considered one of the basic resources that add value to human life (Sen, 1999).

Moreover, improving the well- being and survival status of children, as well as inculcation of community norms and practices, are the responsibility of the family (Mosley and Chen, 1984). Global organizations such as the United Nations have further confirmed that commitment to improving newborn health would make meaningful socio-economic contributions to national development (Yinger & Ransom, 2003). Childhood death in general and particularly infant mortality is mostly used as a broad indicator of level of social development and as specific indicators for health status in Ghana (GDHS, 2014).

Infant and under- five mortality rates are not only indicators to identify the health status of children in a particular country, but also to give a general reflection of the socio- economic conditions and inequalities that exist both between and within countries especially in sub-Saharan Africa. UNICEF records that sub- Saharan Africa has the greatest disease and burden of childhood deaths worldwide (Costello et al. 2001). According to a report filed by UNICEF, 1 in 9 children do not live to see their first birthday. In addition, about 4 million babies died in the year 2000 during the first month of birth. Costello et al. (2001) further posit that, an estimate of four million babies die each year before reaching their first day of birth and four million more are stillborn (that is; dying between the 22nd week of pregnancy and at birth). Out of the world's four million neonatal deaths, 99% occur in low- and middle-income countries including Ghana and approximately half of these deaths occur at home (WHO, 1996; WHO, 2001; Lawn et al., 2005; Muktar- Yola M. & Iliyasu Z., 2007; Yared et al., 2013). The first 28 days of life for every newborn has been identified as the most critical period for their survival; and about 10,000 newborns die daily during this period (Lawn et al., 2005; Martines et al., 2005). Neonatal mortality, accounting for an estimated 4 million deaths worldwide each year, constitutes 40% of under-5 mortality and approximately 57% of infant mortality (WHO, 2001). Among these deaths, neonatal conditions mainly prematurity, sepsis,

and birth asphyxia account for about 40% while pneumonia, diarrheal diseases, malaria, and HIV/ AIDS together account for about a third of these cases (UNICEF, 2014).

However, there has been a 17% reduction in newborn deaths with an estimated 3.1 million deaths in 2010 according to Lawn et al. (2005) and UNICEF, WHO, The World Bank, The United Nations Population Division (2011). Studies (WHO, 2001; Damstadt et al., 2003; Bhutta et al., 2005) have shown that infant and under- five mortality rates have declined significantly for the past two to three decades whereas in the case of neonatal mortality, there has been a slow decline in developing countries. In low- and middle-income countries (LMICs) where the highest rates of neonatal mortalities are recorded, 2.9 million newborn deaths occur each year as part of under- five mortality rates, which shows that proportions of newborn death are on the rise (Black et al., 2003; Lawn et al., 2005; Baiden et al. 2006). Generally, the neonatal mortality rate (NMR) in sub-Saharan Africa is estimated to range from 20 to 40 per 1000 live births (Greenwood 2003). Nonetheless, the African continent bears the greatest burden of newborn deaths and also records the slowest rate of decline in neonatal mortality rate. The high rates of newborn deaths are still relatively invisible due to inadequate data, challenge with large percentages of babies not being born in healthcare institutions, traditional beliefs and practices about newborn deaths engaged in by some family members especially in the first week of life and some perceived complexity including the cost of saving newborn lives in Africa.

Globally over the last decade, a concerted effort had been made to address the burden of maternal and newborn mortality by some African countries aimed at achieving the 4th and 5th Millennium Development Goals (MDG) by the year 2015 which was unattainable. These efforts have led many African countries including Ghana to come up with a number of initiatives like the Essential Care for Newborns, Continuum of Care and ongoing call for actions by all health professionals with trainings in Helping Babies Breath (resuscitation) and

providing appropriate protocols to aid newborn and maternal survival in the various health facilities.

In Ghana, just as in other African countries, access to quality newborn healthcare services is a major cause of newborn deaths both in the urban and rural areas. However, the invincible traditional beliefs and practices concerning newborns especially in the rural areas within the first week and at most, the first month of life, has remained a major but silent determinant of outcome for the sick and at- risk newborns in these communities. Ghana is one among the few sub- Saharan African countries that could have achieved the MDG 4 targets of reducing child mortality by 2015 just like it attained the targets for universal primary education (MDG 2A), halving extreme poverty (MDG 1A), halving the proportion of people without access to safe drinking (MDG 7B) and gender parity in primary school (MDG 3). However, the success story changed as at 2015 to progress towards Sustainable Development Goals (SDG 3) by 2030 since many Ghanaian newborns are still dying from preventable causes of death with little data showing progress in overcoming this challenge (UNDP, 2015). Data from UNICEF and the World Bank further shows that decline in neonatal mortality has been generally static (29 deaths per 1000 live births) since 2006 with a declining rate of less than 0.5 per 1000 live births every year. Ghana mirrors these statistics of the slow pace of decrease in neonatal mortality (GSS, 2011). Again, on the slow decline of neonatal mortality rates in Ghana, the Ghana Demographic and Health Survey (2014) explicitly accounts for some statistics explaining the decline.

According to the GDHS (2014), infant mortality rate accounted for 41 deaths per 1,000 live births with under- five mortality rate slightly higher at 60 deaths per 1,000 live births. According to the survey, at these levels, one in every 24 Ghanaian children die before reaching age 1, and one in every 17 does not survive to his/ her fifth birthday. As at 1998 recorded by the survey, infant mortality had declined by 28 percent while under- five

mortality rates had declined by 44 percent over the same period. Out of the ten regions of Ghana, three regions recorded the highest of deaths which are the Northern, Upper West, and Ashanti regions of Ghana. Preceding five years of the survey, neonatal mortality rate was 29 deaths per 1,000 live births, 2.2 times the post- neonatal period over the same period. This indicates that, the risk for any Ghanaian child who survives the first month of birth is reduced by more than half (55%) in the post- neonatal period (0 – 28 days of birth).

Despite a halving of under- five mortality rates over the last twenty- five years, newborn deaths within the first month of life have remained a persistent problem (Lawn et al., 2005). Among the major causes of newborn deaths in low and middle income countries (specifically Ghana) over the years are: prematurity, infections and birth asphyxia (that is difficulty in breathing at birth especially within the first minute of birth), with low birth weight as an important secondary factor (WHO, 1996; Costello et al., 2001; Mukhtar- Yola & Iliyasu, 2007). In addition to these major causes, some underlying factors also known to be attributed to the slow decline in newborn deaths in Ghana include social inequality, socio- cultural beliefs and practices that negatively impact newborn health, deficiencies in data and newborn statistics, deficiencies in number, competency and attitude of health professionals in maternal and newborn care services, and finally deficiencies in policy, structure and systems for health care delivery (Welbeck et al., 2014).

Improving newborn survival in Ghana and in other sub- Saharan African countries requires a considerable amount of resources and proper management at all levels which include the individual, households, community and the nation (Belli et al., 2005). Further to this, the crux of the health problem is not only about unavailability of health resources but the inability of the government to fully utilize scientific knowledge about newborn care and maternal health, and various beliefs about neonatal illness.

1.2 Statement of the Problem

Although there has been a dramatic improvement in child survival, the burden of newborn mortality has remained virtually stagnant. Most of these deaths as posited by Lawn et al., (2005) occur at home in the absence of any skilled health care provider. A number of diseases have been identified as leading causes of neonatal and childhood mortalities in sub- Saharan Africa and in Ghana. Diarrhea, pneumonia and malaria are seen as the largest disease-specific contributors to childhood mortality including neonates in sub- Saharan Africa (Friberg et al., 2010; and Kinney et al., 2010).

While several recent reviews have focused on malaria (William and Jones, 2004; Ahorlu et al., 2006; Adjei et al., 2009; Maslove et al., 2009), a few reviews exist on diarrhea (Bentley, 1992; Bentley et al., 1988; Weiss, 1988) and pneumonia referred to as acute respiratory infection, (Pelto and Pelto, 1997). However, there is little focus on traditional beliefs on disease and illness in the rural communities. In Ghana, "asram" is popularly known among families in the Akan- speaking communities. It is assumed to be a syndrome of newborn diseases or illnesses with no standard medical equivalent. In the rural communities, it is known as a leading cause of neonatal and childhood mortality. However, there is a limitation in literature on how 'asram' is managed by mothers and other care givers in Ghana.

Although a sizable body of published researches have explored traditional beliefs on newborn and childhood illnesses, (see for instance, Allotey and Reidpath, (2001); Thairu and Pelto (2008); Okyere et al., (2010); and Bazzano et al., (2008), very little is known of the management of 'asram' as a newborn disease. In fact, a number of the studies done on 'asram' by far have focused on the Brong Ahafo and Ashanti regions in Ghana. Furthermore, the researchers have focused on the 'effect' (Okyere et al., 2010), 'symptoms recognition' (Bazzano et al., 2008) and 'assessment' (Howe et al., 2011).

Moreover, while the causes of diarrhea, malaria and pneumonia are attributed to biomedical conditions such as infections, asphyxia, and premature and low birth weight as the primary cause of newborn deaths (Tettey and Wiredu, 1997; Edmund et al., 2008; and Welbeck et al., 2013), the cause of 'asram' is attributed to the spiritual and identified as potentially severe (Bazzano et al., 2008) and can influence the health seeking behavior of mothers with newborns suffering from 'asram'. Again, formative researches on community- based interventions into solving this menace are seldom reported in the literature (Howe et al., 2010).

This thesis explored the beliefs, perceptions, and management of 'asram' among families as a contributing factor to neonatal mortality so as to inform interventions to reduce neonatal mortality rate in the study community, region, and Ghana as a whole in order to attain the Sustainable Development Goal 3 by 2030. In terms of management and health- care seeking, this thesis interrogated mothers and health providers on their beliefs and perception about "asram' and how they manage it, bringing healthcare providers, mothers and caregivers together as to what they can commonly define 'asram' and provide the best of care for all sick newborns.

This thesis therefore seeks to understand how mothers and caregivers manage 'asram' as a newborn illness in the Eastern Region of Ghana, specifically, Adamorobe.

1.3 General Objectives

Generally, this study seeks to explore the knowledge, beliefs and perceptions on 'asram' and how it is managed among families in Adamorobe in the Akwapim South District of the Eastern Region of Ghana. Ultimately this thesis is intended to contribute to discourses on neonatal and child health in Ghana.

1.4 Specific objectives

In furtherance to this, the study seeks to achieve the following specific objectives:

- To ascertain what mothers and other family members refer to as ‘asram’
- To identify the local indicators and the types of ‘asram’
- To explore mothers and other family members’ beliefs and perceptions on the causes of ‘asram’
- To explore the local treatment regimens and prevention of ‘asram’
- To interrogate the healthcare seeking behavior of mothers and other family members in the study community.

1.5 Research Question

- To what extent is ‘asram’ considered an allopathic health issue?

1.6 Significance of the Study

The greatest gap in offering care for the newborn is often within the first week of birth when most neonatal deaths occur at home without any contact with a formal health center. Adamorobe, a community in the Akwapim South District is noted for its high prevalence of ‘asram’ and the strong belief in its spiritual causation by the residents. Similar views are held in other Akan- speaking communities in Ghana in the Ashanti and Brong- Ahafo regions. This, as a result, has become a critical barrier to improving the health of most newborns in these Akan communities. This study significantly seeks to identify the gap in knowledge and practices pertaining to newborn care and to provide inputs into developing feasible, strategic and sustainable community- based interventions to improve neonatal care and survival in Adamorobe and in other parts of Ghana.

Moreover, much is not known about 'asram' in the medical lexicon by the medical practitioners. Findings from this study will provide adequate information for healthcare providers on what mothers and other family members mean when they refer to a particular newborn condition as 'asram' and to be in sync as to how to manage it by providing the appropriate health care. Again, the findings will aid Healthcare Providers and institutions such as the Ministry of Health (MOH), Ghana Health Service (GHS), UNICEF, WHO, and other stakeholders in health to develop and implement policies to give neonatal survival issues the needed priority and attention in Ghana. This can help Ghana end preventable deaths of newborns and children under- five years of age by 2030 with the aim of reducing neonatal mortality to at least as low as 12 per 1, 000 live births and under- five mortality at 25 per 1, 000 live births to attain the SDG 3 target.

Lastly, this study seeks to add up to intellectual knowledge and discourse on traditional illnesses and the meanings to their causations in Ghana.

1.7 Definition of concept

In the context of this study, 'management' is defined as the acts and practices engaged in by mothers and caregivers in treating and seeking healthcare for their sick newborns.

1.8 Scope and limitations of the study

This study was limited to the Adamorobe community in the Akwapim South District of the Eastern Region. It involved residents (mothers and caregivers) above 15 years of age since the fertility age of women in the district according to the Ghana Statistical Service is between 15- 49 years of age. The expanse of the subject matter covered knowledge, attitude, beliefs, and perceptions on 'asram' as well as how it is managed. It also focused on newborn care practices that are carried out in the various households and in the community. Additionally, the socio- economic status of mothers and caregivers of neonates were assessed. Some essential newborn care practices in line with the WHO guidelines such as early and exclusive

breastfeeding, recognizing danger signs and illnesses in newborns, delivery practices both in the Community- based Health and Planning Services (CHPS) compound and with TBAs were further captured.

The study was limited by time and financial constraints. The alternative of performing cross sectional studies through the administration of questionnaires in itself in addition to the in-depth interviews was faced with the tendency to collect unreliable and untrue responses from survey participants about their experiences. Also, the company of the community health nurses to identify and locate mothers with 'asram' specific cases influenced mothers' acceptance or refusal to participate in the study. Education and the assurance of confidentiality were used as tools to curb such tendencies.

1.9 Organization of the Study

This thesis is into six related chapters.

Chapter One introduces the study. This chapter consists of an overview of newborn health and survival globally and specifically in sub- Saharan Africa. It further gives the background information on neonatal mortality as a major public health problem and provides statistics on neonatal mortality rates worldwide, in developing countries and specifically Ghana showing the major causes of neonatal mortality across board. The chapter continues by showing the gap in literature for the problem understudy and how the study intends to fill this gap. The objectives of the study, the research questions which guides this study, and the significance of the study are all captured in this chapter. It concludes by giving an overview of how the entire thesis has been organized.

Chapter Two: Literature review: This chapter is divided into two parts. The first part pertains to reviews on neonatal health and survival in Ghana and the socio- cultural determinants that lead to neonatal mortalities in Ghana. It also looks at myths surrounding neonatal mortality and proven solutions to the reducing the number of newborns who die

every year. Conversely, this includes the connections in the body of work on 'asram' as a newborn illness and highlight on how it is defined. Again, the classifications, types, and factors that accelerate this menace and its incidence in various communities and regions in Ghana are highlighted.

Chapter Three: This chapter explores theoretical models guiding the scope of the study. Embedded in this study is Murdock's theory of illness causation.

Chapter Four: Research methodology: This section of the thesis explains the stages involved in obtaining the data for the thesis. It begins by describing the research area, explaining the research design, explaining sampling procedure and data collection methods employed in the study. The chapter continues with the description of how data was managed and analyzed, ethical issues considered in the study and the challenges encountered by the researcher on the field. Finally, the chapter discuss the sample for the study by giving the background information on respondents of the study.

Chapter Five: This chapter analyzes the data and presents the findings of the study with regards to the study objectives. This chapter ascertains the indicators of 'asram', examines mothers and caregivers' perception on the causes of 'asram', its treatment regimens, and ascertains the health care- seeking behavior of mothers and other caregivers of sick newborns. The general healthcare practice of mothers from pregnancy to delivery is also examined.

Chapter Six: This chapter concludes the entire thesis by summarizing it. It describes how the entire thesis was carried out and highlights the major findings; it also shows how the findings address the objectives of the study and its implications. Finally, the chapter presents some recommendations for both policy makers as well as future researchers.

CHAPTER TWO

OVERVIEW OF NEONATAL HEALTH

2.1 Introduction

As indicated earlier, 'asram' as a health phenomenon is very popular in the Akan- speaking communities but compared to its popularity, very little has been written on it. This chapter therefore presents literature review on the limited researches related to 'asram' and a review on child healthcare generally.

2.2 'Asram' in Ghana

According to Hill et al. (2003), 'asram' as a phenomenon in health is attributed to a situation where the stomach or breast of a pregnant woman is seen by a person possessing a bad eye. By this, the said person does not have clean intentions for the expectant mother. Bazzano et al. (2008) also found 'asram' as the most commonly mentioned newborn illness in their study. They defined 'asram' as the main serious illness which affects newborns and known to be transmitted to the baby in the utero by other people intentionally (because of jealousy or antipathy) or unintentionally. Additionally, in a study conducted in Techiman and Kintampo North and South, 'asram' was perceived as a severe and common illness with human attributes (Okyere et al., 2010).

The Monday, March 26, 2018 edition of the Daily Graphic on page 10 captured an interesting story to the editor, with the title: 'What is this Asram'? The author wondered what 'asram' was and its contribution to neonatal mortality in Ghana. This indicates how important it is to consider local diseases that are attributed to child health whenever the issue of child health care interventions is raised.

Figure 1.1: Demystifying the Myth: What is this 'Asram"?

What is this 'Asram'?

I WALKED happily into a paediatric ward for the very first time in my adult life anticipating seeing newborn babies smiling at me; but unfortunately what I perceived was the contrary.

The sight of this baby boy pulled me close. The baby was very thin with big head and green and black veins lining his head, with other symptoms I would not describe here.

His mother was cuddling him in tears. I was instantly filled with compassion and asked her what was wrong. She said her new born had been afflicted with 'Asram'. That was the very first time I ever heard of that illness.

I was later told by some elders that 'Asram' was a 'non-hospital' illness, meaning it cannot be cured by orthodox medication and that it can only be cured by herbalists.

The unconvincing explanation was that 'Asram' was a spiritual illness caused by jealous people, witches, wizards and juju men and women in the community either when the child is in the womb or immediately the child is conceived.

I appeal to health authorities to take a very serious look at this ... Even though some level of research ... been done, enormous resources ... be committed to undertake an in-depth research to complement ... has already been done, demystify ... myth and also find a cure.

The truth is, this 'Asram' kills hundreds of newborn babies ... without the Births and Deaths ... knowing about it not to even talk ... the cause of death.

Moses Sackie Ad... mosesagbemavu@gm...

Redesignation of motorway?

Timely reaction from the authorities can save more Ghanaians. When will the prophets prophesy that without dealing with dangers on our roads, there could be casualties, instead of mentioning the names of persons?

If human settlement has caught up with us (which is the case though) and we cannot keep the road as a motorway with such high speed limits, let us be honest with ourselves and convert it into any residential road to avoid playing the ostrich.

We should not lose another person, celebrity or not, before action is taken on these developments.

Bartholomew Darko
bartholomew.darko@yah

Booming "trotro" business

These days, one can hardly move more than 100 metres without a "trotro" pulling off the road to pick passengers or move to rejoin the flowing traffic at a snail's pace at a location where 100km/hr sign is displayed. What is more worrying is the competition for passengers along the motorway among "trotro" drivers as they try to outdo one another, thereby posing great danger to other drivers.

Dangerous pedestrian crossing

Pedestrian crossing has also seen extremely significant numbers in the past few years due to the settlements along the motorway. The road markings have faded for years with no sign of repainting. Night

Tri-cycle business operators

Another worrying development is the activities of the tri-cycle business operators. Some of these cycles, carrying refuse, overloaded with scrap metals and travelling at about 10km/hr, and vehicles travelling about 100km/hr, overtake one another and switch lanes in a threatening manner. I have witnessed sudden stops by these try-cycles, possibly due to mechanical faults. Some throw their rubbish on the road after repairing their faulty tri-cycles loaded with refuse and other goods such as sachet water.

Enforcement of ban

This is not to be misconstrued as

Source: Daily Graphic, March 26, 2018.

Drawing inferences from the studies above, 'asram' exist as a local newborn health condition which is commonly known, believed, and perceived to be spiritually caused by witches and evil doers mostly in the rural Akan- speaking communities of Ghana. 'Asram' from the limited researches conducted is locally believed to be one of the leading causes to neonatal and child morbidity and mortality and the need to well addressed within the health systems to improve neonatal and child survival.

2.3 Neonatal and Child Healthcare

Neonatal mortality has been of interest to most world bodies due to its impact on the quality of a population's growth. It has been defined as the likelihood of a child dying within the first 28days of birth. Neonatal mortality is differentiated into early neonatal death and late neonatal death. Early neonatal death occurs within the first 7 days of life while late neonatal death happens after the 7th day but before the 28th day (Lawn et al., 2001; WHO, 2006; UNICEF, 2015; Ghana Maternal Health Survey, 2017).

Neonatal survival is, therefore, problematic and is an issue of great public health concern especially in the developing world. Most often, care for the neonate is given little attention in maternal and child health Programmes and even in national policies concerning health. Trends in the under- five mortality both at the global level and in many low- and middle-income countries including Ghana have shown a significant fall in under- five and infant mortality while neonatal mortality keeps rising (Lawn et al., 2012; UNICEF, 2013). Approximately, out of the four million global neonatal deaths that occur annually, 98 percent of these deaths occur in developing countries. Yet, according to Kinney et al (2010), 1.2million newborns die annually in sub-Saharan Africa. For this reason, the WHO (1996) has identified most newborn deaths in developing countries as occurring at home where they are cared for by mothers, relatives, herbalist and traditional birth attendants without the presence of skilled health personnel.

Neonatal mortality rate has seen a slower decrease from 43 per 1000 live births in 2003 to 30 per 1000 live births in 2008 according to the Ghana Demographic and Health Survey (GDHS, 2008) and MICS (2011). Identifying the causes of these neonatal deaths in Ghana, a number of studies (Welbeck et al., 2013; Edmund et al., 2008; and Tettey and Wiredu, 1997) have shown infections (32%), asphyxia (23%), prematurity and low- birth weight (27%) as the primary causes (GDHS, 2008). A more recent data from UNICEF indicates changes to these causes having infection (31%), preterm birth complications (29%), and intrapartum- related deaths (27%). Likewise, in other sub- Saharan African countries for example Ethiopia, neonatal and child mortality rates are on the rise with 37 per 1000 live births. In a similar manner, the causes of neonatal deaths include sepsis, asphyxia, tetanus, respiratory distress, birth injury, preterm birth, congenital abnormalities and other unknown factors that accounts to the causes of neonatal deaths in the regions (Chowdhury et al., 2005 and Mekonnen et al., 2013). Based on the above-mentioned causes, it is obvious that infections in the newborn may

be underestimated in some developing countries including Ghana where proper care of the newborn is less adequate. Besides the extensive education by health professionals on the recognition of danger signs in newborns and reported efforts to treat ill infants through the formal health care system, traditional beliefs and approaches to newborn or prenatal illness still remain common. To illustrate, healthcare decisions regarding infants and newborns are mostly influenced by community members aside infant's mother or caregiver. Yet again, confidence in healthcare providers has been an issue and the perception of causes of newborn illness may affects the health- seeking behavior of these actors, especially in the rural communities. For instance, classification of most newborn illness, especially those that result in failure to thrive as 'asram' in many parts of Ghana, commonly, among the Akan speaking communities or regions (Okyere et al., 2010). To conclude, there are a number of health conditions associated with neonatal mortality which have multiple factors accounting for them in Ghana and in many developing countries.

Edmond et al. (2006) have argued that delayed onset of breastfeeding has been one of the causes of neonatal mortality. The initiation of early breastfeeding within the first one hour of birth has the potential of increasing child survival and reducing neonatal mortality by 22%. There are cases where breastfeeding is delayed and so babies are put at risk within the first seven days of their life. If breastfeeding was initiated within the first day, neonatal mortality could be reduced by 16%. From this analysis, breastfeeding within the first one hour is crucial for the survival of a baby.

Chowdhury and Geater (2005) have also listed several causes of neonatal mortality to include sepsis, asphyxia and respiratory distress among others. Baiden et al. (2006) include diarrhoea, meningitis and malaria to the list of newborn illness. They could be prevented by tetanus toxoid immunization, skilled health care assistance at delivery and immediate and exclusive breastfeeding. Reyes refers to neonatal sepsis as any harmful bacteria or toxin present in a

baby's body. There are various types of neonatal sepsis including early onset neonatal sepsis which occurs within the first 72 hours of birth for a hospitalized premature baby. This condition is caused by prematurity, maternal urinary tract infection, poor or no prenatal care and premature rapture of membranes among others. Late onset sepsis is that which occurs within 4-90 days of life of a neonate. This is often associated with the environment of the newborn.

Asphyxia is a lack of oxygen to the brain which affects both children and adults. Neonates often suffer asphyxia neonatorum or perinatal asphyxia or birth asphyxia which is a condition where a baby does not get enough oxygen during the birth process. Babies may not suffer birth asphyxia during birth but fetal heart beat can be an indicator. Other indicators include skin that appears pale or blue, difficult breathing which may cause symptoms such as nasal flaring or abdominal breathing, a slow heart rate and weak muscle tone. Birth asphyxia is caused by blockade of a baby's airways, anaemia which means the blood cells do not carry adequate oxygen, prolonged or difficult delivery, and mother's blood pressure being too low or high during delivery, any known infection which affects the mother or the baby, placenta separating too quickly from baby causing a loss of oxygen and an improper wrap of the umbilical cord around the baby (Gill, 2018).

Respiratory distress syndrome is also known as surfactant deficiency or hyaline membrane disease. This predicament occurs almost exclusively in premature infants- children born before 28 weeks of pregnancy. The occurrence and severity of respiratory distress syndrome are related inversely to the gestational age of the newborn infant. This means a premature baby is likely to suffer a respiratory distress syndrome while a fully developed baby has low chances of contracting this disease condition. Respiratory Distress Syndrome is prevalent among premature infants because their lungs cannot produce adequate surfactant which is a liquid that insulates the inner most part of the lungs. Enough surfactant helps keep the lungs

open so that infants can breathe in air once they are born (Pramanik, 2015; Shiffman, 2017). These conditions explored by various researches in their views are the conditions associated with neonatal mortalities in sub- Saharan African countries including Ghana. There are increasing numbers of factors that influences neonatal and child health. Among these factors are maternal health before, during and after pregnancy; conditions at the time of labor and delivery; postnatal care of babies; socio- cultural factors; healthcare seeking behavior; and some cultural practices. Again, the manner in which health challenges are addressed also captures myths and cultural beliefs about neonatal illness and mortality (Costello et al, 2001).

2.4 Traditional/ Local conditions and Myths surrounding Neonatal Mortality

In the traditional African society, the whole view and ultimate purpose for marriage is procreation. Children are believed to be born to carry on with a family's heritage and name so that the family does not diminish when the older ones are no more (Gyekye, 1996). Hence, during a marriage ceremony in these societies, most prayers made by traditional leaders include the request for the birth of more children. To support this notion, there is an Ewe maxim which says: *"There is no wealth where there are no children"* meaning one does not really enjoy one's wealth when there are no children to care for. This maxim, therefore, explains the high value placed on the need for children and also reading into the interpretations of names given to them in different parts of the African continent. To illustrate a few, these are some names given to children in Yoruba in Nigeria and Ewe in Ghana (Gyekye, 1996).

Yoruba children in Nigeria:

Omodumbi: children are sweet to have

Omoleye: Children are the sources of prestige

Omoyele: children confer glory on a home

Owotomo: money is not as valuable as children

Similar of Ewe children in Ghana:

Adzitowu: children are more important

Dzidzienyo: procreation is a good thing

Exoke: It has taken root: by the birth of this child our house will stand

These names and their meanings show African people's beliefs, practices, proverbs, folktales, and myths surrounding child birth. Some of these beliefs, like the belief in 'asram', 'spirit child' and folk illness are some of the conditions that lead to neonatal and child mortality in some instance.

2.5 Improving neonatal and child healthcare

With respect to neonatal survival, biomedical and traditional or local conditions and myths are not the only factors that influence their mortality; other major factors also account for these mortalities:

2.5.1 Maternal health Status and Child Survival

Improvement in the survival of the newborn is dependent on a continuum of care which includes interventions directed at mothers during pregnancy, labor and delivery which have a deep impact on newborn survival especially within the first week and the first month of birth, the period around which most newborns die (Kerber et al., 2007; and Yeji et al., 2015). Equally, improvement in newborn survival will also depend on the care given to women in the pregnancy period, in particular, their nutritional status, general health care, their perceptions and beliefs about child birth and their routine visits to a formal health facility for healthcare (Vinod, 2005). Maternal care is however not only important for reducing maternal mortality but also neonatal mortality. Vinod (2005) estimates that about 12 million pregnant women in sub- Saharan Africa do not get tetanus immunization, however, the presence of a midwife, nurse, or doctor at child birth in developing countries is taken for granted where some women in labor do not visit the hospital at all.

2.5.2 Postnatal care of babies

Families and households play an integral part in one's life from birth and as such, the survival of a newborn will greatly depend on the actions and inactions of these members from the local community level to that of a wider society (Gyekye, 1996). According to the WHO recommendation for essential care for every baby, mothers are expected to visit an appropriate health facility three days and a week after delivery for the baby to be immunized and receive a routine check for any postnatal abnormalities and danger signs. Aside the mothers, it is the duty of Community Health Nurses (CHNs) to go for home visits during the first week and month after birth to check on the newborns at their various homes. The inability of mothers to follow this and the recommendation and the refusal of CHNs visiting mothers and their babies' home can lead to death of a newborn in the situation when mother or caregiver is not able to recognize a danger sign (Mulligan et al., 2009; WHO, 2016).

2.5.3 Socio- cultural determinants

Maternal Education

Maternal education is one of the most important factors accounting for differentials in child health and ultimately mortality (Manda, 1999; Peña, Wall, and Persson, 2000). Attempts to examine the dynamics more closely seem to suggest that women with higher educational levels have an increased chance of marrying husbands with similar or higher educational attainment levels and with it access to higher incomes and improved living conditions (Barrett and Brown, 1996). Furthermore, women with higher educational levels have an increased likelihood of securing stable, well-paying employment and wield significant decision-making power and control over resources (Frost, Haas, and Forste, 2002). Adding to our knowledge of the differential effect of educational levels on infant and child mortality, some studies (Manda, 1999; WHO, 2005) have reported a strong inverse correlation between

the two. Maternal education improves child health in a range of ways and several studies of both a conceptual and empirical nature have examined the different pathways. Bhuiya, Streatfield, and Meyer (1990) assert that educated women are more knowledgeable about good nutrition and are better able to make informed health choices for themselves and their children (Castro, Martin and Juárez 1995). Once the children do become ill, women with authority are more likely to draw attention to their children's illnesses and to secure access to appropriate health care services unlike women with no education or little education and do not adequate knowledge on child health issues (Caldwell 1993). Bicego and Boerma (1993) draw attention to the fact that education is often associated with a shift away from traditional practices, making educated women more likely to accept modern medicine, and use preventive health care services. An increase in maternal education is also implicated in increased use of contraception, lower fertility rates, reproduction at low-risk ages, and longer birth intervals (Cleland and Van Ginneken 1988). Thus, maternal education is expected to be inversely associated with infant mortality.

Ethnicity

In African societies ethnicity plays a central role in the analysis of social, economic and political issues in these societies. The decisions and choices individuals make especially with marriage and child birth are dictated by their cultural backgrounds which also emanate from ethnic traditions (Gyekye, 1996). Ethnicity has an important effect on several family related outcomes such as the timing and the number of children a woman will have which, in turn, may affect a child's chances of surviving (Bhatiah 1982). Like most African societies, Ghana manifests ethnic heterogeneity, with four major ethnic groups, namely, the Akan, Ga-Adangbe, Ewe, and Mole-Dagbani. There are several minor groups who are more or less similar to one or more of these major groups in their social organization. Because of the

variations in these ethnic traditions, newborn illnesses and causes of deaths also vary which can be a contributing factor to their deaths.

Religion

Traditional African religion according to Gyekye (1996) again is not primarily for the individual but for the community to which the individual belongs. To him, in the African cultural values, to be born into a human community is to be born into a religious community and to find oneself as one grows and matures participating more and more in the ceremonial rites and festivals of that community. Thus, the religious belief of a particular community or an individual can shape their beliefs, values, doctrines and principles concerning mundane things such as marriage, fertility, divorce, and matters concerning life and death in general. The cultural heritage of Ghana is pervasively religious; on the hand contact with alien cultures has brought about an encounter with both Islam and Christianity with their new ideas of family. Ghana clearly provides an illustration of the diversity of faith with the population broadly divided into African Traditionalists, Christians and Muslims. Because of the traditional African values governing marriage, childbearing and childcare practices, the high rates of maternal and neonatal mortalities recorded in the country can be associated with these practices.

Region

Regions are seen as possessing an objective reality of their own, hence, independent of social and demographic characteristics of their residents (Peterson, 1975). For example, Trovato and Hill (1983) argue that even though the effect of region may be mediated by characteristic variables such as income, education, occupation, and other social indices, it is also possible that region has an independent effect. Region may reflect unmeasured causes, which range from social to economic and historical circumstances unique to a specific geographic area. Globally and in Africa, there are regional differences in the infant mortality rate (Rossouw &

Jordaan 1997). In Bangladesh, infant mortality rate stands at 53.5 per 1000 live births (Chowdhury et al., 2005), where as in Ethiopia and in Ghana, infant mortality rates are 37 per 1000 live birth and 35.2 per 1000 live births respectively (Mekonnan et al., 2013, UNICEF, 2015). Ghana has ten administrative regions, each marked with variations in access to social and economic resources and amenities. For instance, variations in geography have produced variations in the cultural and occupational activities in the regions; the Greater Accra which contains the national capital and "coastal" regions (Central and Western) have had more exposure to modernizing influences such as education and exposure to urban life through early European settlement in these areas. There are some regions on the hand that do not have access to some basic amenities and proper healthcare to solve general health issues and that of newborns. This to some extend affect newborn survival and also explains the regional variations in the distribution of infant mortality rate in Ghana.

Rural/ Urban residence

Research indicates that infant mortality is lower in urban areas than in rural areas (Gupta and Baghel 1999; Manda 1999). Both urban men and women are more likely to be knowledgeable about the advantages of child spacing methods, typically have greater access to contraception and education and thus have fewer children than those from rural areas. Similarly, urban women are more likely to be from higher socioeconomic status and frequently have more family decision-making power than their cohorts in the rural areas (Kirk and Pillet 1998; Manda 1999; Dodoo and Tempenis 2002). Additionally, women living in urban areas usually have more immediate access to health care than rural women. Notwithstanding these disparities, neonatal mortality either in rural or urban center add up to the national statistics which is worrying.

Cultural belief and practices

An African society according to Gyekye (1996) places a great deal of emphasis on communal values. Certainly, these communal values express appreciation of the worth and importance of the community, and they further underpin and guide the type of social relations, attitudes, and behavior that ought to exist between individuals who live together in the community, sharing a social life and having a sense of common good. In particular, sharing, mutual aid, caring for others, interdependence, solidarity, reciprocal obligation, and social harmony are typical examples of such communal values (Gyekye, 1996). For this reason, the socio-cultural beliefs and practices of a community are strongholds that can be very resistant to change irrespective of the socioeconomic status of the individual or members of that community. Welbeck et al. (2014) acknowledges that, understanding a community's value-system, health seeking behavior, beliefs and practices that undermine evidence- based interventions is a crucial step for saving newborn lives.

Singh and Samara, (1996) and Carr, (1997) cites traditional practices in most African societies like the female genital mutilation and early initiation of young females into marriages which usually results in early childbearing as a predisposing factor to neonatal mortality. In their view, early childbearing predisposes the offspring of the mother to perinatal asphyxia and further increases the risk of low birth weight and preterm births respectively.

Moreover, some traditional beliefs like the local belief about 'the spirit child' also referred to in the local dialect as 'chichuru' or 'kinkiriki' amongst the Kasena- Nankana's in the Northern part of Ghana in a study by Allotey and Reidpath (2001) demonstrated that almost 15 percent of deaths of infants under 3 (three) months of age were due to this belief, resulting

in infanticide. In some communities in Nigeria as well, twins were described as 'spirit children' and therefore perceived to be evil and a bad omen for the family in which they are born into and for this reason, are killed at birth (Senah, 1993). Yoder (1982) cited in Allotey and Reidpath (2001) further adds to the fact that, many communities leave infants with congenital physical deformities perceived to possess evil spirits to die by abandoning them, starving them of food, or physically killing them. Lastly, the belief in 'asram' referring to a collection of newborn illnesses especially amongst the Akans in Ghana contributes to the high rates of neonatal mortalities in these regions like the Ashanti and the Brong Ahafo regions where most of the researches on 'asram' have been conducted (Hill et al., 2003; Bazzano et al., 2008; Okyere et al., 2010; Howe and Manu, 2011).

Although access to quality newborn health care services is a major challenge and a cause of most newborn deaths in both urban and rural areas, the invincible beliefs and practices concerning newborns especially in the first week of life is a major but silent determinant of outcome for most sick or at- risk newborns in many African communities. As a consequence, these cultural beliefs and practices affect the health seeking behavior mothers and families in African societies which also delays in prompt referral of a sick or at-risk newborn for appropriate health care resulting in the slow pace of reducing neonatal mortality rates in Ghana and other Sub- Saharan African countries.

2.6 Healthcare seeking behavior

The health seeking behavior of mothers and other caregivers also play a composite role in seeking healthcare for sick newborns for their survival. Sara MacKian (2002) asserts that health sensitization Programmes have generally been built on the notion that health awareness contributes to a positive orientation towards health behavior. She however notes that, there is a growing perception that health education alone is insufficient in inducing

positive health behavior. Health seeking behavior can be examined from two approaches: first, the utilization of healthcare and second, the process of illness response. These approaches are influenced by a variety of reasons which are as follow:

Socio-cultural factors

The element of patriarchy is one of the factors that get in the way of women from seeking prompt health care for sick newborns. Among the Karnataka of India, Sen, Iyer & George (2007) note that women and girls have to bear health rationing due to insecure household economic status. Gender is a more important discriminator among women. Locally among the Karnataka, pregnancy is likened to a time when a woman accumulates dirty and bad fluids in her body. Delivery is seen as a ritually polluting process that calls for a prolonged period of cleansing and penance. Therefore, elders enforce restricted mobility, diets and fluid intakes to purge the new mother. These systems interfere with the identification of post-partum complications such as hemorrhage and most child birth complications and abnormalities. Women with poor status in Karnataka society endure high levels of pain, discomfort and humiliation. There are no reasons for protesting because of the embarrassment surrounding women's bodies and the "normalization" of many women's reproductive morbidities (Sen et al, 2007, p. 689). Among the Kassena – Nankana in Ghana, gate keeping mechanisms impede women's promptness in accessing care. This reflects the spiritual role of the household head and the prevalent economic authority husbands wield over their partners. Gender biases disempowering women through unequal status and normative local traditions (Ngom et al, 2003; Sen et al, 2007).

People's health-seeking behaviour, is also influenced by their understanding and interpretation of the causes of their illness or disease. If a person is faced with a life-threatening disease the obvious reaction is to understand and look for the cause of illness

from various means available (Awasthi, Mishra & Shahi, 2006). When people accept the germ theory of disease causation, they exhibit a different attitude in their search for a cure. This behaviour is usually different from a disease attributed to a supernatural cause (Awusabo – Asare & Anarfi, 1997).

Also, the belief in the supernatural especially among people from the third world countries is a major factor. Explanations of disease from people from the advanced world emphasize the individual and his natural world (Furnham, Akande & Bagume 1999 as cited in Awasthi, Mishra & Shahi, 2006). Since supernatural explanations have been given for diseases such as tuberculosis, guinea worm, cancer, and HIV/AIDS, people tend to visit traditional healers and spiritualists. In addition, neonatal related diseases especially at the early stages of birth such as measles, anaemia, boils, swollen head, malnutrition are all attributed supernatural causes and therefore healthcare are believed to be sought from traditional healers and spiritualists. Diseases such as malaria, diarrhoea and chicken pox are readily accepted as a breakdown in bodily functions and hence sufferers visit the hospital or clinic to access treatment.

Furthermore, the lay theory of illness (Bill Schoenbart and Ellen Shefi, 2013; Furnham, 1988; Helman, 1990 as cited in Awasthi, Mishra & Shahi, 2006) reveals that individuals usually have mental conceptions of illness. If the manifestation of a disease matches their fore representations, they tend to exhibit appropriate illness behaviour like seeking care and following up with a comprehensive treatment. Alternatively, if symptoms do not agree with the illness perception, it often leads to a delay in appropriate care seeking. This mismatch in belief also leads to wrong compliance to drug regimen and health proposals (Baumann & Leventhal, 1985; Turk, Rudy, & Salovey, 1985 as cited in Awasthi, Mishra & Shahi, 2006).

Karma as a unique Indian belief system teaches individuals to be temperate with sufferings. It also fortifies the individual with the psychological stamina. In addition, it gives a clearer

perspective on the purpose of life. This orientation of Karma differs from the Western perception of disease causation (Awasthi, Mishra & Shahi, 2006).

2.7 Where do they go?

Healthcare in sub- Saharan African countries including Ghana is essentially pluralistic, thus, structures around three main systems: biomedical care, traditional healers, and popular knowledge or self-care (home remedies) (van der Geest, 1997; and Nyamongo, 2002). Granted the promotion of biomedical medicine by international healthcare organizations, traditional medicines reported in the WHO fact sheets remains the primary form of healthcare for more than 80 percent of Africans population. Traditional medical systems in this sense do not only include traditional healers, but also popular knowledge of the local population, known as domestic medicine or home remedies (Towns et al., 2014). This aspect of the literature examines the different forms of health provisions available to prospective health clients. Being humans with varied tastes and preferences, a similar behavior is exhibited in following treatment or exhibiting appropriate health behavior. In seeking treatment, some people exhibit plural medical behavior in the sense that they access multiple forms of treatment with the bid to recover quickly and become well. In this case, health seekers shop from different health providers and follow different health practices.

2.7.1 Medical pluralism

Medical pluralism is defined as the use of multiple medical provisions involving both orthodox and herbal medicines among others as a means of complementing or increasing the efficacy of a chosen treatment. The multiple provisions include both conventional and Complementary and Alternative Medicine (CAM). Although western medicine dominates most areas of health practice, the science of anthropology with respect to disease and medicine is disputing the dominant claims of Western medicine. Even though orthodox medicine is common in most parts of the world, ancient medical systems have shown

resilience in the upsurge of western medicine. As such, there is a fusion of ancient medical practice into western medicine. Therefore, people who opt for allopathic treatment still go in for other alternative forms of healing (Wade et al, 2008; Mishra et al, 2014).

2.7.2 Reasons for medical pluralism

Contributing to plural medical behavior or medical pluralism, a number of factors are exhibited. Several studies (Shaikh et al, 2008; Weerasinghe & Fernando, 2009; Afolabi et al, 2013; Waterworth et al, 2016) have been conducted to investigate the reasons for which people exhibit plural health behavior. Shaikh et al (2008) have identified socio-demographic characteristics like age, sex level of education, economic issues, cultural factors, social and environmental circumstances, proximity factors and features within allopathy as factors that inform plural health behavior.

One of the physical conditions that contribute to plural health behavior is accessibility or distance from orthodox medical facility and non-availability of medicines. According to Shaikh et al (2008), people who are ill consider other alternatives aside hospitals and modern medicine as options to health care. As found in rural Pakistan, modern medicine is known; however, faith healing and traditional methods are predominant, as well. Faith healers use the Du'a – a form of prayer to exorcise the ill person seeking health advice. The ill person is given an amulet or charm which contains Koranic verses for use. Others rely on homemade remedies handed down by family elders and ancestors. A respondent reported, "We go to khalifa [the faith healer] mostly because the health center is located far away from our village, and the government dispensary is open during fixed hours. Days and times that it is open too, medicines are not available" (Shaikh et al, 2008, p. 750). Thus, means of transportation and availability of medicines to a large extent determine whether people would participate in allopathic health care.

Secondly, a cultural factor such as the acceptability of local treatments makes alternative treatments a ready option for people. Local treatments as treatment option is a practice ingrained in people's psyche which is bequeathed to successive generations without questions, for which reason people would consider herbal preparations even when allopathic health care is available. Shaikh (2008) mentions the role of the "hakeem", who is a Greco-Arab healer. The hakeem cures patients with *desi* (indigenous) medicines. "Some get well from the hakeem's medicine and some do not, but people still prefer to go to him. This type of approach has existed from the beginning as a tradition," a respondent reported (Shaikh et al, 2008, p. 750). Elsewhere, Waterworth et al, 2016 identified culture as an integral factor that influences a person's health behavior.

Medical system in Sri Lanka allows for the practice of Ayurveda and orthodox medical prescriptions (Weerasinghe & Fernando, 2009) and this has been attributed to reasons such as the availability of orthodox medicines, familiarity with Western medicines and absence of capable Ayurveda health professionals. Ayurveda medicines are also expensive and of compromised quality. The transformation in the lifestyle of villagers who rely on Ayurveda as a means of cure is contributing to its low patronage. Persistently, however, there are symptoms such as fractures, snakebite, and paralysis where most Sri Lankans still subscribe to Ayurveda treatment. Thus, cultural conviction on one hand, and institutionalized plural medical systems on the other are significant means of determining plural medical behavior or inducing medical pluralism.

A health provider being male or female is considered when it comes to which health facility to consult (Sen et al, 2007; Shaikh, 2008). Women generally prefer to visit or consult a health center where there are female health care providers for the obvious reasons of being able to relate to them easily. One respondent reportedly said, "The majority of the people prefer to get treatment from government health facilities. However, when there is a lady doctor in [the]

government hospital, too, our women can go to her easily (Shaikh et al, 2008, p. 750). Further, gender biases devalue and stigmatize women's experiences of health seeking behavior. These understandings restrict women from accessing health care and adhering to some health and diet restrictions. These inhibit health care seeking behavior.

Economic reasons or affordability are also contributing to the factors for which people exhibit multiple health behavior. Researchers (Tanahashi, 1978; Elsevier, 1999; Shaikh et al 2008; Weerasinghe & Fernando, 2009; Waterworth et al, 2016), argue that people widely practice self-medication because they cannot afford the services from an allopathic health provider. In some instances, people get the medications on credit because there is no money to pay for orthodox health services. For instance, in Uganda, malaria in pregnancy is a silent killer because the cost of orthodox health services is a barrier in addition to the erratic drug supply. Women therefore treat themselves for malaria with local herbs and drugs bought from shops. Unemployment, impact of the justice system and incarceration are contributory factors that compromise health behavior among men. A further discussion of economic effects on plural medical behavior is where Churchill (2008) notes that health behavior is dependent on whether one is health insured or not. Usually, people use public health insurance as a means of getting around the increasing cost in health care.

The nature of orthodox health care services has also been considered as one of the factors that contribute to plural medical behavior. Afolabi et al (2013), relate how students in a university community decline the use of the university community's hospital. Students rather conferred with their peers in health-related academic disciplines for help. Others visited pharmacies while some rejected allopathic medicine due to religious convictions. Cost of care, prolonged waiting time, hostile attitude of healthcare workers was some of the deterrents of utilizing orthodox medical care. Waiting time, hostile behavior of health care providers and manifestations of disease symptoms were some determinants of care seeking behavior.

2.8 THEORETICAL FRAMEWORK

2.8.1. ILLNESS CAUSATION AND RATIONAL CHOICE THEORY

There are a number of theories that can be used for this study, but taking into consideration the orientation of this study, the Illness Causation Theory by Murdock (1980) and the Rational Choice Theory by Coleman (1988) were better suited.

In the literature reviewed, it is apparent that neonatal and child survival is problematic, which can be attributed to early childhood illnesses and other health related conditions, which is, an issue of great public health concern in most developing countries, specifically, in Ghana. In this regard, a number of researchers have given a wide range of factors as the causal models for childhood illnesses impeding their survival (Agyepong and Manderson, 1994; Njoloma and Cordero- Madntyre, 2002; Ajaiyeoba et al., 2003; Hausman- Muela and Ribera, 2003; de Savigny et al., 2004; Ellis et al., 2007; Deressa et al., 2008; Colvin et al., 2013).

To explore the meanings attached to beliefs and perceptions in reference to the cause of ill-health, Murdock's theoretical model of ill- health was used as the theoretical underpinning of this study. According to Murdock (1980), understanding illness in every society and culture can be based on two main theories, that is, natural and supernatural causation. These two main distinctions are explained further below.

Murdock (1980) defined the theory of natural causation as any theory, scientific or popular which accounts for the impairment of health as a physiological consequence of some experience of the victim consistent with western biomedicine or in a manner reasonable to medical science. As such, five distinct types of theories were explained under this natural causation which are: infection, stress, organic deterioration, accident, and overt human aggression. These types are further explored individually as to how it operates in causing ill-health. First is *infection*, which is believed to be the invasion of microorganisms in a victim's

body in reference to the 'germ theory' deriving from the discoveries of Pasteur and Kock. *Stress* is also ascribed to overexertion especially during pregnancy, overeating, and anxiety. *Organic deterioration* is further defined as a decline in physical capacities relating to ageing, the appearance of serious hereditary defects which often manifest at birth or in childhood resulting in infanticide and high neonatal mortality rates worldwide. *Accident* is the suffering of some physical injury under circumstances which appear to exclude both intention on the part of the victim and suspicion of supernatural intervention. For example, frostbite, burns, bites of snakes or insects, wounds from animal attacks, cuts from careless handling of weapons typically during labor and at home and fracture from a fall or vehicle collisions. Lastly is the *overt human aggression*. This is defined as the willful infliction of bodily injuries on another human being, as in violent quarrels, assault, brawls, and crimes of violence, warfare and even attempted suicide. These types as posited by Murdock (1980), have common characteristics as being derivative rather than primary, hence usually imprecisely defined. He also asserts that; scientific grounds are insufficient to classify these types as natural causation and their connotations are not necessarily supernatural though they often have religious outcomes.

The supernatural theory was analyzed from three general perspectives. These include theories of the mystical, theories of animistic causation and theories of magical causation.

Theories of mystical causation is defined as any reasoning accounting for the impairment of health as the automatic consequence of some act or experience of the victim mediated by some putative impersonal causal relationship rather than by the intervention of a human or supernatural being. Typical examples of this type are fate, ominous sensation (that is experiencing of particularly potent kinds of dreams, sights, sounds or other sensations believed to cause and not merely to portend illness), contagion (which is coming into contact with some purportedly polluting objects, substance, or person) and mystical retribution

defined as acts in violation of some taboo or moral injunction conceived as causing illness directly rather than through the mediation of some offended supernatural. Another type is the *theories of animistic causation* which ascribes the impairment of ill health to the behavior of some personalized supernatural entity, for example a soul, ghost, spirit or lesser god. Soul loss as an example is the voluntary and temporary departure of a victim's soul from his body, traditionally referred to in the Ashanti region of Ghana as 'awomamwuo'. Another example is spirit aggression which is defined as attributing illness to direct hostile, arbitrary or punitive action of some malevolent being (ghost, spirit, deity) different from overt human aggression which is a human being with evil eyes. Lastly is the belief in *theories of magical causation*. Here, the supernatural being in the view of Murdock, merely acts on the instigation or as the agent of a human aggressor. The magical causation theory ascribes the causes of illness to sorcery and witchcraft.

Thus, these theories of Murdock (1980) are the key driving concept guiding this study in understanding how illness is perceived and the beliefs individuals attach to the causes of 'asram'. The beliefs in a particular cause of 'asram' will determine the rational behaviors of individuals in seeking healthcare for ill- newborns and how these illnesses are treated and managed. This then leads to the rational choice theory which complements the illness causation theory in this work.

The Rational Choice Theory by Coleman (1988) borrows most of its concept from the economic theory and argues that, social behavior can be explained in terms of "rational" calculations the individual makes about the options available to them. Hence, human actions are calculated and individualistic.

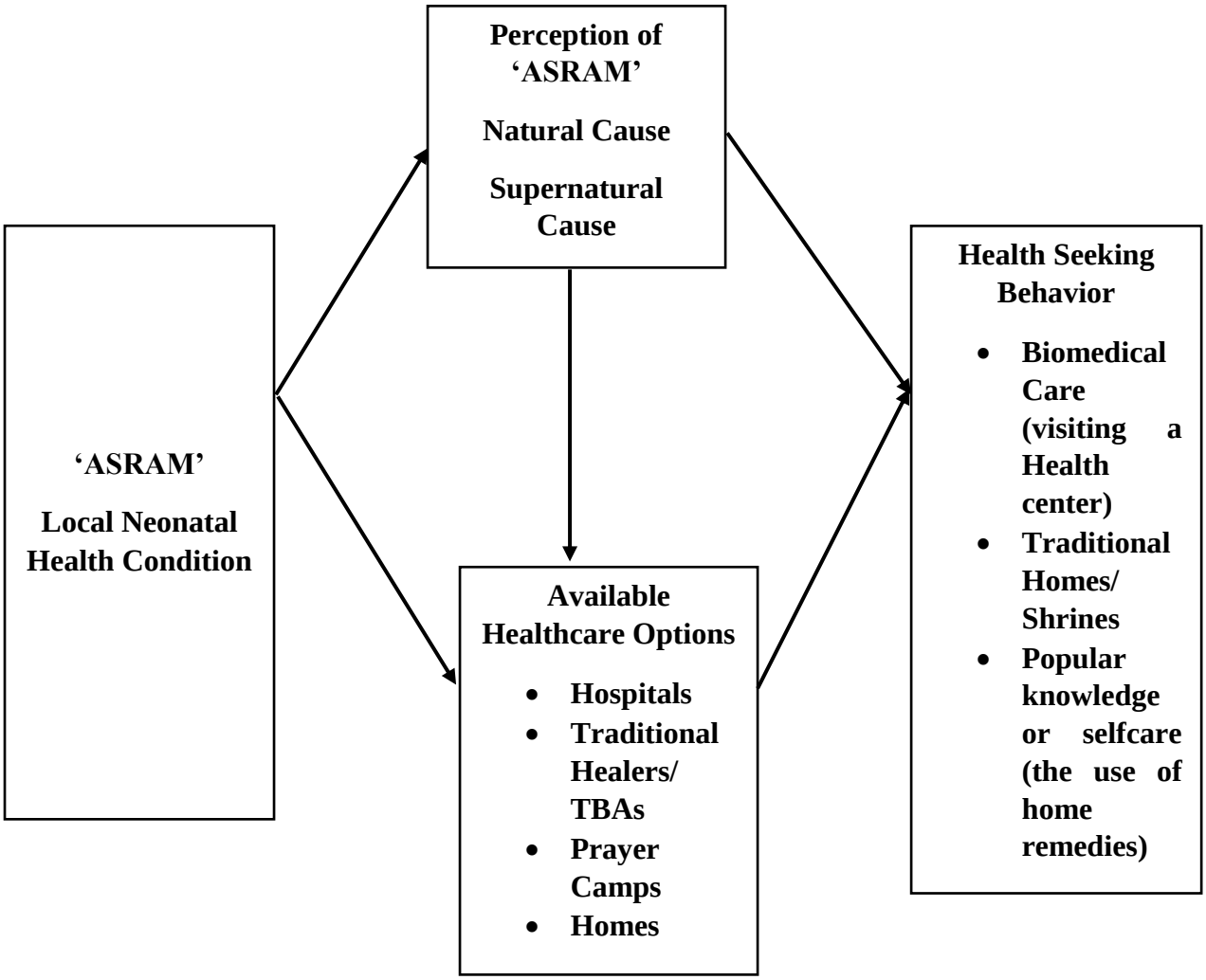
Rational Choice Theory does not simply ignore social problems but traces these problems either to the people's rational choices or to the aspects of irrationality that may result from having inadequate information about the choices available to them or being insensitive to the

long- term consequences of short- term decisions. This, in relation to the core of the study explains the healthcare seeking behavior and how newborn illnesses are treated and managed in the study community. This behavior could be based on mothers and other caregivers believe in the cause of 'asram', and the healthcare options available to them which are believed to be "rational". These healthcare decisions may be based on the availability, accessibility, affordability, accountability and the strong belief in a particular health provider or facility.

This calculating nature to make the most "rational" decision on how to manage and where to seek healthcare for ill- newborns and child health care in general is relevant to this study, as it explains why individuals would choose one method of healthcare over the other.

Biomedical theories of illness causation co- exist and operate in a complex and dynamic relationship with the spiritual theories of illness causation. Households and caregivers thereby draw on a wide range of these theories in unexpected ways coming up with their own definitions of illness, identifying symptoms and causes in a complex manner. Shared beliefs in these theories can therefore be concluded as having a great impact on the rationality of healthcare- seeking behavior of the various parties involved.

2.9 Figure 2: Conceptual Framework



Source: Researcher's Fieldwork, 2018.

From the above figure, it is conceptualized that participants perception of 'asram' as being caused naturally or supernaturally would determine their choice of healthcare seeking behavior. This relationship could also be mediated by the healthcare options available to them. Hence, the choice of healthcare seeking behavior could be directly influenced by the availability of healthcare options.

2.10 Conclusion

The literature review so far shows that there is very little on 'asram' and the greater number of researches are focused on institutional or facility- based measures and interventions in curbing factors affecting child health in terms of morbidity and mortality globally, and in Ghana, ensuring child survival. As stated in the literature, a number of these studies have been on the biomedical causes to child morbidity and mortality like prematurity, infections, and asphyxia accounting for most childhood deaths especially at the early stages of birth. Little attention has however been placed on the traditional beliefs and practices associated with childbirth such as 'asram', 'awomawuo', 'nsuomba', and other locally coined terms for sick newborns leading to their deaths in most rural communities of Ghana. This thesis particularly seeks to contribute to the literature on child health especially within the neonatal period, focusing on 'asram' as a local illness that affect newborns in most rural communities in Ghana, indicating the need for inclusion of extensive community- based interventions on local beliefs and practices associated with child health in national health interventions . The next section of this chapter discusses the theoretical perspectives underpinning this study.

CHAPER THREE

HISTORICAL PROFILE OF THE STUDY AREA

3.1 Introduction

This chapter provides the detailed information on how the study area was selected, the historic profile and the social structure of the study area, Adamorobe in the Akwapim South District.

I partook in a study on perinatal survival in Ghana in 2014 as an external evaluator and a research assistant in four selected regions- Ashanti, Brong- Ahafo, Eastern and the Volta regions of Ghana. These regions according to the project's objectives were known aside the three major northern regions as having high rates of neonatal deaths and the need to engage healthcare practitioners in a training to equip them in handling newborn cases around the period of birth to curb the high rates of neonatal mortalities in the regions. The study however focused on facility- based interventions where the focus was on health practitioners in the regional and district facilities of these regions. This arouse my research interest in this same area of neonatal and child health thinking of what happens at the community level, where research by Lawn et al. (2012) has indicated that most neonatal deaths occur at home. I then selected the Eastern Region as my study region in 2017 during my MPhil studies.

In the Eastern Region, the initial work was focused on Konkonuru, a village in the Akwapim South district which I got to know off through my supervisor. I made a reconnaissance of the village with the intent of understanding neonatal care from the perspectives of community members. It was through my interactions with some mothers in this community that I became aware of the local knowledge of 'asran', which I had known to be common among Akan-speaking communities also referred to as 'asram' in the Ashanti region.

Once the study was on health, I decided to first visit the District Health Directorate to inform them of my research interest on ‘asram’ and also ask for their assistance as gatekeepers to formally enter the community before I commence. But then, conversation with the health officials at the District Health Directorate pointed me to Adamorobe where according to them there is a strong belief in ‘asram’ and will be interesting to gather more information on this local health phenomenon. Where is Adamorobe, I asked?

3.2 Description and Historical origin of Adamorobe

In order to describe the steps taken to collect data, it is important to gain a detailed insight into the terrain where the study was conducted.

Adamorobe is a village in the Eastern Region of Ghana situated about 40 kilometers from the capital Accra. The village is located in a bowl-shape valley at the foot of the Akuapem hills. A partly paved road of about three kilometers leads to the main road and a two- kilometer footpath uphill connects the village with the district capital Aburi. Adamorobe is a very fascinating village in popular discourse in terms of its historical origin, the notion of the village as a deaf and dump village and the myth about the place. As a village understudy, it was of interest and a necessity for the researcher to know the population dynamics and traditional political arrangement of the place. The local economy, social infrastructure and the general health information of the village were also inquired to give the researcher a holistic view and adequate information especially on the health status of children under- five years in the village considering the focus of the study.

In the history of Adamorobe, the village started out as a hunting camp. A hunter found the place to be rich in animals for hunting and plants for consumption, especially pineapples, *aborob*e in Akan. He then decided to settle there and referred to his settlement saying *'medan m'aborobe'*, meaning ‘I depend on my pineapples’ hence, its present name Adamorobe.

Indeed, there has been some variations in the pronunciation and spelling of the name place which include Adamarobe, Adamrobe, Adabrobe and Adammobe. According to the former chief Nana Kwaakwa Asiampong II, mentioned by Frishberg (1987), Adamorobe is known to have existed as a settlement for over 200 years. Okyere and Addo (1994) seem to base their estimation on the same indication of two centuries as they mention the curiously precise date of 1773 cited in Miles (2005) as the founding year of Adamorobe, without further confirmation. An estimated time-depth similar to Adamorobe was given for a number of villages in the area (Kwamena-Poh, 1973:130).

Adamorobe as a village currently has a female chief, Nana Osei Boakye Yiadom II, who at the same time functions as *ohemma* or queenmother. She is the second female chief of Adamorobe and is based partly in Aburi and in New York (USA). In her absence, there is a sub- chief and a council of elders who preside over the affairs of the community. During the time of the study, the queen mother was out of the country so it was the sub- chief and the council of elders whom I met to gain permission to enter the community for my study. Adamorobe has a population of about 3,500 peoples of both hearing and the deaf speople and the ethnic composition is predominantly Akwapim (GSS, 2012 cited in Nyst, 2014). As a result of migration and the current development of the place, the village has now been divided into four communities including old and new settlements. The four communities are Adamorobe and Yaw Doudu (old settlements); and Maya and Obama (new settlements) (from the CHPS compound data base). Akuapem Twi is the primary spoken language in Adamorobe and a dialect of Akan, together with Asante Twi, Fante and other dialects like Ga. The Adamorobe Sign Language (AdaSL) is the sign language used as means of communication between the hearing and the deaf and also among the deaf. Living between the Ga-speaking villages of Oyibi and Saduase, most hearing adults also have a good

command of the language of their neighbors. Most hearing adults in Adamorobe in many cases have limited command over the official language of Ghana, which is English.

3.3 The deaf and dump village

Adamorobe is known nationwide as the "deaf village", because of its unusually high incidence of deafness. Selecting this village as my research community, I pondered on how I was going to communicate with the people since I knew it was a deaf village. My first impression when I visited the village was to meet most deaf people interacting with me, which was not the case. A number of people I first interacted with could all here and speak which somehow changed my perception of the place although I was eager to meet some deaf people. In the Akan dialect, the word for the 'deaf person' is oso-ti-fo, literally 'ear-snap-person'. Also used is the term *mumu*, but perceived as harsh by some people (Oteng, 1988). Since 1961, a number of researchers and visitors have reported of a high prevalence of deafness in Adamorobe (such as David, Edoo, Mustaffah & Hinchcliffe 1971; Osei-Sekyereh 1971; Amedofu et al., 1999; Nyst 2007). There have been variations in the deaf population, for example, I was told by a community volunteer in the CHPS compound that the number of deaf people that were currently present were about fifty (50) in 2018 where as Kusters (2012) and Nyst (2007) counted 41 in 2012 and 35 in 2001 respectively. This could be as a result of immigration and emigration rather than from births. According to Kusters (2012), in 1975 deaf people were prohibited from marrying each other because it was believed that deaf-deaf marriages formerly common in Adamorobe invariably brought forth deaf offspring. In addition, there was a local belief that deafness is passed on by men, therefore hearing women were not willing to marry deaf men. The Adamorobe Sign Language (AdaSL) is used as a means of communication. Mostly, the people who are able to sign well are close relatives of deaf people, those who grew up with deaf people, friends of deaf people and people who work deaf people. Obviously, the deaf people are more fluent in the sign language while the

hearing people mix the sign language with the local dialect. In everyday life, the deaf people interacted naturally with the hearing people through the sign language, but majority of the deaf people engage in a deaf- only conversations. During my survey, a hearing person was used as an interpreter for the deaf people who took part in the study and some of the children who were reported as had 'asram' were deaf and dump, but their speech impairment had no connection with the 'asram'.

In the contexts of religion and education, the deaf people are now separate from the hearing people which was not in the case in the past with traditional Akan religion and the system of home- based education in the community. Presently, the deaf people have their own church separate from the hearing people, and deaf children from Adamorobe attend the boarding school for the deaf in Mampong.

Sarkodee (1983) cited in Miles (2005) and Okyere & Addo (1994) posits that the social position of deaf people in Ghana is mostly influenced by whether or not they are part of a larger deaf community. Some studies in Ghana have also addressed this position of deaf people. Oteng (1988, 1997) further describes the establishment of deaf education in Ghana and her own life and writes about the experiences of deaf children and adults in Ghana. This includes the description of a conventional gesture meant to insult deaf people. Holding a leaf between the lips, which implies that deaf people are leaf eating animals, rather than humans. Having a high incidence of deafness, attitudes towards deafness are different in Adamorobe as compared to other parts of Ghana. To make emphasis on is the strong deaf- hearing connectedness and unity in Adamorobe. Adamorobe is thus known as a deaf- inclusive community.

3.4 The myth about the deafness in Adamorobe

Several beliefs and perceptions are attached to the presence of the deaf in the Adamorobe. Among the explanations offered by the inhabitants for the unusually large deaf population in Adamorobe stated by Dery (1981: 68) was that the town was ruled over spiritually by a deaf god who makes the offspring of any couple deaf if they have done something to offend him. Also, the rhythmic manner in which the priestess, the messenger of the town god, dances when possessed by her spirit was a proof of the deity's deafness.

A second legend is that there is a stream on the outskirts of the town whose water must not be fetched by anyone for domestic purposes because of its sacred nature. The inhabitants are not even allowed to go near the stream on certain days of the week. Those who dared to break these taboos were punished with deaf children.

Another story is that long ago, there was a handsome strong deaf young man in the town with whom every woman and girl, irrespective of whether they were married or not, sought to have a child with because of his charming looks. This irresistible deaf man, to the inhabitants is believed, sowed the seed of deafness in the town. No one knew where he came from and when he left the town.

The last legend is that at one time in its history, Adamorobe was at war with a neighboring town. Before it could be over-run by its attackers, the totems of the people of Adamorobe took human forms and came to their aid thereby enabling them to eventually win the tough war. Thereafter, the animals however refused to leave the town and therefore manifested themselves in children who were born deaf.

According to Kusters (2012), during her fieldwork, she encountered two more stories relating to the high incidence of deafness. During the war at Katamanso (1826), Adamorobe warriors used a special concoction that made them fierce in battle, but which, on return, appeared to have left them deaf. Kusters again stated that, outside of Adamorobe, a doctor from Accra

told the story of small goats, abundant in Adamorobe, who used to enter the houses of the villagers when they were away doing farm work, and would dress up like humans. Some farmers returned unexpectedly, surprised the goats, and were bewitched and left dumb by the goats so that they could not give away the secret of their presence.

In a study by Amedofu et al. (1999), they also mentioned the name of the stream god of Adamorobe, Kiti as the deaf god relating that to the presence of deaf people in the community. However, this stream was the seat of the god Adamorobe Ayisi, rather than of Adamorobe Kiti. The seat of Kiti is actually a red, stagnant water.

The inhabitants of Adamorobe according to the officials of the district health directorate also have a common myth of classifying most newborn illnesses and birth abnormalities as ‘asram’ but never linked a baby born deaf to ‘asram’ during my study on ‘asram’ in the community which was quite surprising.

3.5 The social infrastructure of Adamorobe

The main economic activity in Adamorobe is agriculture where most people are into subsistence farming (growing of maize, cassava, plantain and vegetables). Recently, people have started extracting stones from an open stone quarry at the entrance of the village for commercial purposes. Together with the recently founded stone factory, these job opportunities have attracted workers from outside the village. In addition to labor immigrants, commuting workers are settling in Adamorobe, because of its vicinity to the capital Accra. Land is being sold at a high rate and on some plots construction has already started. A number of constructions works seen being done during my visit to the individual households. The village is changing rapidly in the constellation of the population as well as in outlook and is likely to become a suburb of the capital.

Many inhabitants of Adamorobe do not work on the land on Thursdays, observing the day of Asase Yaa, the earth goddess. Instead, the people of Adamorobe often walk to the Thursday market in Aburi, Madina and Accra central market to make purchases and sell their crops. Adamorobe has close ties with Aburi. Many people have relatives in both Adamorobe and Aburi. The chiefs of Adamorobe usually have their residence in Aburi. Ties with the neighboring Gã villages of Oyibi and Saduase, are less close and complicated by disputes about land.

There are relatively many Christian denominations in the village which include Baptist Church, Pentecost, Church of Christ, Anglican, Methodist, Christ Apostolic Church and a separate church for the deaf and dump in the community. The local Akan religion is actively practiced as well where they have the *Awoyo* Church and *Odifo Nkansah* Church and the village houses the shrines of Osadu, Akonedi, Omangyina, Amanfo, Nyamponyaw, Adamorobe Kiti and Adamorobe Ayisi (Census, 1960). There is also a community mosque at Obama (the new settlement) for the Muslims in the community.

There are three schools, leading up to Junior Secondary level- Anglican School, Darkwaah Memorial School and Victory Preparatory and J.S.S. There are also two primary schools- Lady of Grace and St. Paul's Primary. School attendance at the primary level was quite low; most children under five years turned five years before starting primary school. These under-five children were easy to find at home and on the street of the community playing as soon as one arrives in the community. Students who continued to the senior secondary level go to Aburi, the district capital at about two hours walking distance from Adamorobe.

Although there is an increasing number of detached houses, the old settlements Adamorobe and Yaw Doudu mostly consists of brick or clay houses in a traditional compound structure: rooms built around an inner courtyard, where people do everything in the open air, for example wash clothes, prepare food, and socialize. The new settlements Obama and Maya are

well built buildings with cements, roofed and nicely painted. There is no sewage system and no water pipes, but there is electricity, a number of people have a car, and televisions and mobile phones are omnipresent. Sanitation is very poor since the community lacks a proper functioning KVIP. This makes open defecation a common practice in the community as I was told by the health committee chairman. The only places I saw a proper toilet facility was at the CHPS compound, the Compassion office, and at the new settlements. The main road to the community from Oyibi junction is not tarred with sand and very rocky. Most commercial vehicles that plight the road from Oyibi junction to Adamorobe Township are in a very poor state. I remember how my friends used to tease me anytime I returned from the field with my red sand shoes and hair. It was all fun.

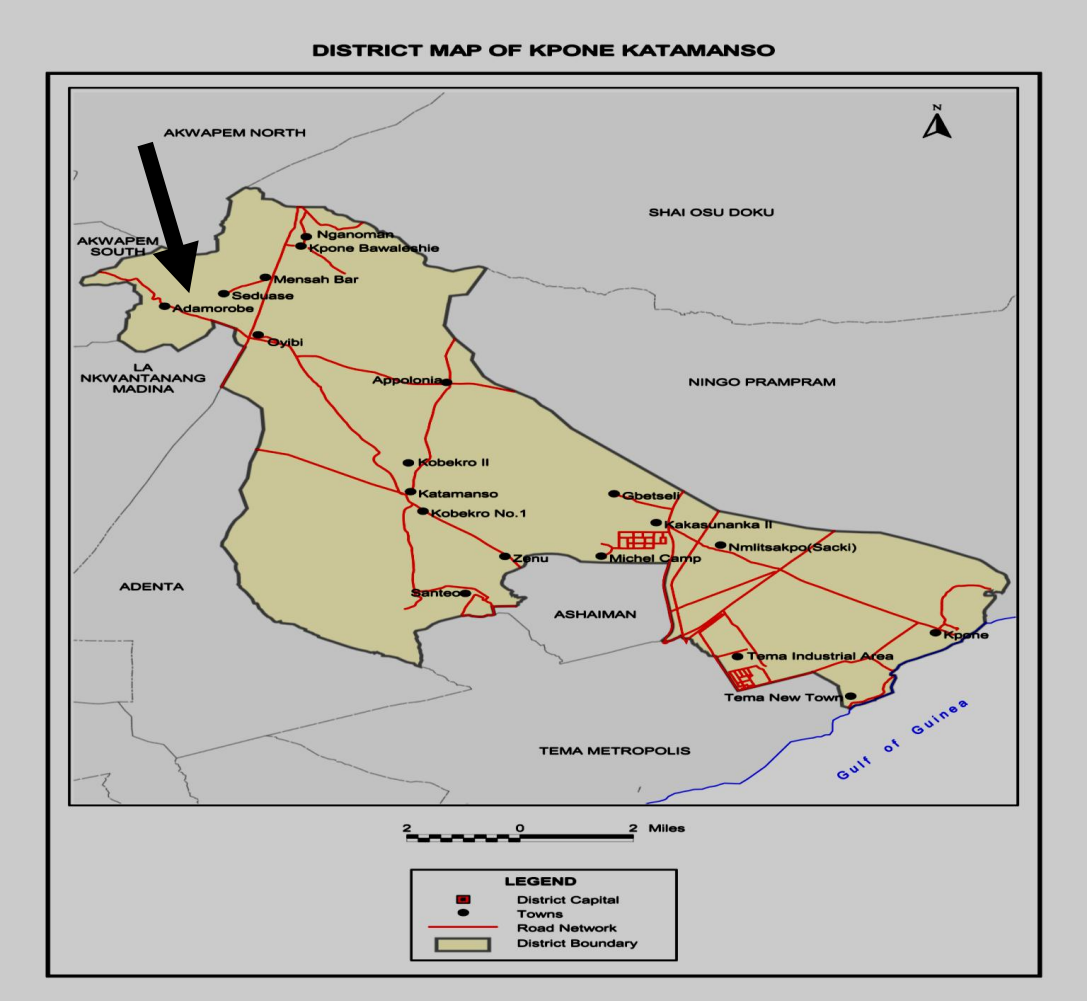
There is a CHPS compound at post with one midwife, two community health nurses, a national service personnel, one nursing school graduate volunteer, and a community volunteer responsible for the health needs of the people in Adamorobe. There are a number of TBAs and Herbalists as well. There is also a faith- based NGO (Compassion) who help in the basic needs of children including health.

Malaria, asram, and measles are the most common illness that affect newborns and children under- five in Adamorobe. The health seeking behavior of residents in Adamorobe is generally holistic, where they complement both orthodox and traditional healthcare with each other but commonly use herbs in treating most illnesses. There is a strong belief in the spiritual causation of illness especially ‘asram’ during pregnancy and child birth and myth surrounding pregnancy and child birth. Pregnant women in Adamorobe were bound by the taboo and myth of not exposing some body parts during pregnancy- the cleavage, chest, calf, and hair. It is believed that exposing these parts during pregnancy, an evil person with bad eyes can easily cast the spell of ‘asram’ on the embryo in the uterus or on the mother. This belief makes it very common to see pregnant women in Adamorobe dressed up all fully

covered from head to toe with hair scarfs and hardly seen outside. Some pregnant women based on this myth, sometimes refuse to come out and visit the clinic for antenatal and delivery making home deliveries very common too. Another myth surrounding pregnancy and child birth is that, pregnant women are not to be seen eating outside or engaging herself quarrels. Pregnant women commonly had a plural medical behavior where sometimes visited the hospital for antenatal and at the same time visited some herbalists and TBAs for herbal concoctions- *apemfoduro* and *asramaduro.* Newborns were also not be heard crying at night since a person with 'asram' could cast 'asram' on the baby through the air when heard. Clothes of newborns were washed and soaked in a blue solution before being dried outside to prevent evil eyes and transmission of 'asram'. Another practice found very common among mothers was to put brooms around the bed or cot of the newborn during birth which was believed to also protect the newborns from evil eyes and 'asram'. Herbal concoctions were mostly used to treat newborns or children with 'asram' and a few were on some instances taken to the hospital for treatment. These practices of mothers and other caregivers in Adamorobe could be explained as rational based on the belief in the causation of ill- health.

It is therefore within this physical, linguistic and socio- cultural context of the history of the people of Adamorobe that the study was conducted.

The map below is the district map of Kpone Katamanso indicating Adamorobe as one of its towns at the north close to the Akwapim South District.



Source: GSS 2014

CHAPTER FOUR

RESEARCH METHODOLOGY

4.1 Introduction

This chapter is devoted to the research methods used and the procedures employed by the researcher in gathering primary data for the study. Finally, the chapter ends with profiles of the participants who took part in the study.

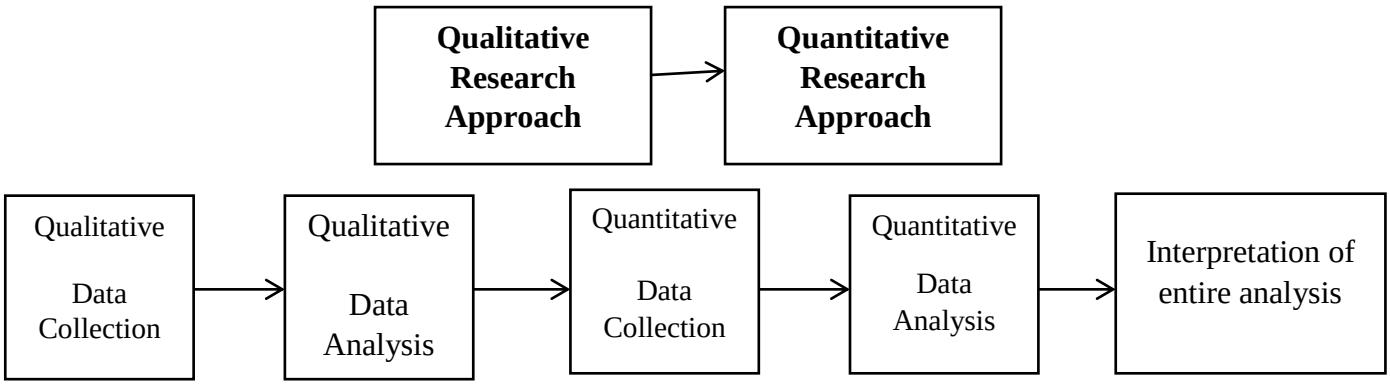
4.2 Research Design

The quality of every research is based on its design. According to Kumekpor (2002), designing a research study involves the procedure employed to carry out the study and the methods used which must be formalized, rigorous and verifiable. He further adds that, a research design is important for the validity of the conclusion of the research findings.

The study employed the mixed methods approaches to ascertain from mothers' and other family members' perspective, their knowledge, belief, perception and management of 'asram'. This method combined both qualitative and quantitative research methods in the study to better understand and to explain the research problem.

Specifically, the study employed the Sequential Exploratory Mixed Methods design, which is made up of two separate approaches; a qualitative data collection approach followed by a quantitative data collection approach (Creswell, 2014). Accordingly, the researcher collected the qualitative data first and analyzed it, after which the quantitative data was collected and analyzed. Thus, themes emerging from the qualitative data informed the kind of questions posed for the survey. Data from the two methods however, were merged at an intermediate stage (see Figure 2). As a result, the findings from the latter complemented and helped in elaborating on the findings of the former. The figure below demonstrates a graphic representation of how data was collected.

Figure 1: A graphic representation of data collection methods



Adapted from Creswell, 2014.

The rationale underpinning the adoption of this approach was to help the researcher develop better measurements from specific sample of the population and to find out whether or not the finding from the participants in the qualitative phase could be generalized to the population in the survey (Creswell, 2014). In addition, the quantitative data informed the researcher about respondents' belief, perception and the health care seeking behavior in case of 'asram'.

4.3 Qualitative Sampling Strategy

The qualitative data collection approach was used by the researcher to explore the knowledge, beliefs and practices of mothers and caregivers of ill newborns, as well as the perceived causes to these illnesses and how they are managed. This approach was more suitable in obtaining this data since the variables- beliefs, perceptions and management relating to how newborns with 'asram' were treated and cared for was difficult to quantify (Boodhoo and Purmessur, 2009). Respondent for the qualitative study were purposively selected.

4.3.1 Target Population

The target population for the study was all mothers with children suffering from or have suffered from 'asram' in the Adamorobe community. The researcher targeted these mothers since they are normally the primary care givers of newborns and hence, were in a better position to provide information helpful to the study. Moreover, mothers were more knowledgeable on the matter because they have the greatest responsibility of taking care of the newborns beyond the financial support provided by the fathers. However, fathers' contributions to the study were not discounted.

Criteria for eligibility were as follows:

- A mother or care giver living in Adamorobe
- A mother with a child suffering from 'asram' or whose child has ever suffered from 'asram'.

The ineligibility criteria presuppose that:

- A mother or care giver not living in the Adamorobe community cannot partake in the study
- A mother with no child or a newborn suffering from 'asram' or whose child has not suffered from 'asram' was excluded.

4.3.2 Sampling Selection and Sample size

For the qualitative phase, the researcher employed the convenience and the purposive sampling methods. According to Neuman (2012), this non probability sampling design is most suitable when the researcher wants unique cases with rich information to enhance data collection. These sampling techniques were systematically applied in the following manner:

First, through the help of the regional and district directors of health in the Eastern Region, the researcher selected Adamorobe as the study area since it was known by the directorate as the community with most 'asram' cases in the district. In Adamorobe, the Council of Elders, the Assemblyman, the local Health Committee Chairman, the midwife and the community health nurses were met with the researcher for the community entry. The researcher afterwards liaised with the Assemblyman and the community health nurses to contact mothers with specific cases of asram. Mothers were more contacted since they have the greatest responsibility of taking care of the newborn beyond the financial support provided by fathers. Irrespective of this, fathers' contribution to child healthcare were not discounted in the study.

Having briefed the health practitioners about the purpose of the study, the researcher secondly with the help of the health practitioners, organized a durbar on a day mothers came for postnatal clinic (weighing) with their newborns. At the durbar, the health practitioners introduced the researcher to the mothers. "*Abaatan*… (Call by health practitioners) *Yedo yenmma* (response by mothers)" this is how the health practitioners initiate their interactions with mothers which the researcher also emulated. The researcher in turn introduced herself and briefed the mothers about the purpose of the study. The researcher then separated the mothers whose babies were suffering from asram or had suffered from asram. Since they were the primary respondents, the research further grouped these mothers into tens for a focus group discussion. In all, the researcher interacted with three (3) different groups with ten member each. This brings the number of mothers involved in the discussion to thirty (30). Each section of the focus group discussion lasted for about an hour and half. Some of the issues raised during the discussion included mothers' knowledge on 'asram', their beliefs and perceptions as to what the causes are, how they manage newborns with 'asram', where they seek for healthcare and lastly how they prevent their newborns from getting 'asram'. Dealing

with the issues raised, some difficulties encountered were mothers sharing sentiments for their lack of trust in allopathic care and therefore would prefer herbal treatments for their sick newborns. Most of the mothers described 'asram' as a not- for- hospital illness since according to them the doctors and midwives do not know the cure for 'asram'. Moreover, the attitude of some orthodox health practitioners contributed to some mothers not visiting the hospitals. There was varied views and perceptions on the cause of 'asram' which was widely debated among the mothers. While majority of them were of the view that 'asram' is spiritually caused, others in agreement with the community nurses perceived it to be a natural cause (biomedical). A few of the mothers shared both views as spiritually and naturally caused. After the discussion, the researcher selected the participants who had enough knowledge about the illness for the in- depth interview. Overall, the researcher selected twenty (20) mothers purposively for the in-depth interview.

During the focus group discussions and the in-depth interview, the researcher also identified some key persons who were constantly mentioned in connection with the subject under discussion. Some of these persons included midwifes, community health nurses, traditional birth attendants, pastors and traditional healers. The researcher realized that these individuals played very important roles in the treatment and management of the illness in the community and were normally involved in handling expectant mothers and their babies. As a result, the researcher contacted some of these people for interview. These key informants included: one (1) midwife, two (2) community health nurses, eight (8) traditional birth attendants (TBAs), three (3) traditional healers (akomfo, and nnunsifo), and two (2) pastors (Sumsum Osofo). Contributions from these informants really gave the researcher a further understanding and knowledge on 'asram'. They also added a different perspective to the issues under discussion. Overall, the researcher interviewed sixteen (16) key informants. This brought the number of respondents involved in the qualitative phase to thirty- six (36).

4.3.3 Data Collection Methods

At this stage, the researcher designed and used different interview schedules based on the study objectives for the focus group discussion, in-depth interviews with respondents and in-depth interviews with key informants respectively. All the interview schedules were semi-structured which offered the researcher the opportunity to probe and prompt where necessary for clarification and better understanding. The researcher asked the respondents about their knowledge about 'asram' as a newborn ailment, how they treat and manage the disease, where they take their children for treatment and what they think is cause of the sickness among others. Some of these questions were repeated during the interviews with the key informant; however, the researcher asked them about their roles especially in the treatment of the diseases.

The researcher facilitated the focus group discussion while a field assistant was took note of the side information that may come up in the course of the discussion. A focus group discussion was considered to allow for the use of dynamics and different forms of communication such as teases, jokes and sometimes arguments to explore views. All the interviews were conducted in Twi. Due to the sensitive nature of the study, certain phrases were used to apologize and to show sympathy before the interview questions were asked. For example, phrases like; 'please I am sorry to remind you of your pain' translated in the local Akan dialect as 'mesre wo, mennkae wo woyaew' were used by the researcher throughout the interviews. this phrase was frequently used when the researcher visited a mother who had just lost her one- week old baby who was believed to have 'asram' and died as a result of not treating early with herbs. This made the mothers more comfortable to share with the researcher on the subject matter. All interviews were audio- recorded and field notes were taken by the researcher to record any emotions displayed and behavioral cues.

4.3.4 Data Handling

The researcher transcribed all the audio- recordings from the interviews and translated into English. Field notes were also taken. The researcher therefore read through all the transcribed data carefully and developed various themes. The transcribed data were reviewed in relations with the field notes to ensure that every piece of information gathered was considered.

The F4 software was used in transcribing and the Nvivo software was used to develop emerging themes from the focus group discussion and the in- depth interview.

4.4 Quantitative Sampling Strategy

Quantitative data collection approach was also used to gain reliable responses from the study respondents to support the valid responses from the qualitative data collected. The following approaches were used to attain the reliable responses from the respondents.

4.4.1 Unit of Analysis

The unit of analysis included an elderly person living in the Adamorobe community and had knowledge about asram.

4.4.2 Sampling Frame

For the quantitative phase, the researcher employed the stratified sampling design to select respondents since respondents were spread among the four major localities in the Adamorobe community. These localities included Adamorobe (the oldest settlement), Maya and Obama (the new settlements) and Yaw Duodu which formed the basis for the stratification. According to Curtis and Curtis (2011), “the Stratified sampling is used to help ensure that the sample matches the population if there is some concern about the completeness of the sampling frame”.

In this regard the researcher applied the stratified sampling design in the following way. First, having the population size of for each locality (strata), the researcher calculated the proportion for each locality. Adamorobe, which happens to be the oldest settlement had the largest (57%) proportion of the total population. This was followed by Yaw Doudu (26%), Maya (12%) and Obama (5%). These proportions ensured that the researcher selected participants for the survey fairly from the various localities.

After computing the proportions for the various localities, the researcher then employed the Simple Random Sample (SRS) to select respondents from the various localities. According to Curtis and Curtis (2011), "this sampling strategy entails the random selection of a sample from a complete sampling frame". In all, the researcher randomly selected 161 respondents from Adamorobe for the survey, 34 from Maya, 14 from Obama and 73 from Yaw Doudu bringing the total respondents for the survey to 282.

4.4.3 Sample size

Giving the population of the area as 1082, the sample size for the survey was estimated at 282. To arrive at this sample size, the researcher employed Krejcie and Morgan's (1970) formula for determining the sample size for survey.

$$\mathbf{S= X^2 NP (1-P)/ d^2 (N-1) + X^2 P (1- P)}$$

Where:

S is the required sample size.

X is the Z value (e.g. 1.96 for 95% confidence level).

N is the population size.

P is the population proportion (which is assumed to be 0.5).

D is the degree of accuracy expressed as a proportion (0.05) i.e. the margin of error.

Source: *adapted from Krejcie and Morgan (1970)*

4.4.4 Data Collection Methods

For the quantitative study, the researcher used the analyzed data from the qualitative study to develop the questions for the survey instrument. As a result, a structured questionnaire was designed and administered to the respondents who were selected for the survey. Both self-administered and face- to- face methods were used to collect data for the survey. With the face to face interview, the questions were read and interpreted in Twi for respondents especially the indigenous residents of Adamorobe and Yaw Duodu while some respondents with a formal education preferred the self- administered especially the respondents from Obama and Maya which were the new localities in Adamorobe The face to face interview for the survey was mostly used and necessary since most of the respondents who participated in the survey could barely read or write. Averagely, the face-to-face interview for the quantitative phase lasted for twenty (20) minutes while the self- administered interview took more than twenty (20) minutes, the researcher at some point visited other respondents and came back for the answered questionnaires.

4.4.5 Data Handling

With respect to handling the quantitative data collected, the researcher assigned codes to all the questionnaires to ensure that each questionnaire could be identified. After coding, all the questionnaires were reviewed to ensure that there were no mistakes with the way a question was answered before they were entered. The researcher ensured that the data that were entered were clean. As a result, she cleaned the data set for wrongful entries since they could affect the result of the tests. The researcher, however, organized, managed and analyzed the quantitative data with the aid of the Statistical Package for Social Science (SPSS) software, version 22. Since the quantitative data was used to supplement the qualitative data, the researcher conducted largely a univariate level analysis with the quantitative data. This

enabled the researcher to gain insight into the major causes of asram, the common types and their prevalence.

4.6 Ethical considerations

The researcher considered a number of ethical issues to ensure that respondents for both qualitative and quantitative phases were safe emotionally, physically and psychologically. In the course of the data collection, the researcher heard of a mother who had just lost her one-week old baby reported to have died of 'asram'. The researcher in the company of the community health nurses visited the bereaved mother and her family to wish them her condolences and to console her. Some mothers who had given birth during the data collection period were also visited by the researcher to congratulate them and advised them on providing essential care for the baby. Other newborns reported to have 'asram' were also visited to assure the mothers that the research was purposely designed for such babies to gain insight on how best they could be treated either with herbs or orthodox medicine to ensure their survival. As a result, at every point in time during the data collection stage, the researcher took time to explain objectives of the study and its importance.

In addition, the researcher considered the ethical issues involved in the study by not coercing anyone to speak if the person was uncomfortable to do so as well as pausing when respondent became emotional and could not speak. At all times, respondents were assured of anonymity and confidentiality in relation to the information they shared with the researcher. Respondents were also made to participate in the study voluntarily. Hence, none of the respondents was at any point forced to participate in the study. The researcher finally sought ethical clearance for the study from the College of Humanities Ethics Committee of the University of Ghana with reference number ECH 098/17-18 to ensure that all the ethical issues regarding the study were met.

4.7 Field experiences and challenges

In general, the study was conducted in a peaceful environment with assistance from respondents, community members, opinion leaders and health practitioners. However, there were few challenges, which are worth sharing. First, not all the 282 respondents (sample size) were met due to the nature of their works and other personal issues the respondents had to deal with outside Adamorobe. The total number of the respondents at the end of the study was 187. Due to the nature of the study, some respondents were reminded of their past experiences with 'asram' which in some cases resulted in the death of their babies. As a result, some respondents were not comfortable to talk about it initially. The researcher overcame this challenge by convincing respondents about the importance of the study and how it would benefit them in the long run. Second, the researcher realized that the involvement of the health practitioners at the initial stage of the study made some respondents reluctant to speak. To overcome this challenge, the research reassured the respondents of anonymity and confidentiality and the importance of their involvements in the study since the focus of the study were their perceptions and beliefs on 'asram'. Finally, this is a community popularly known as a deaf village, and indeed there were some deaf respondents who qualified to be part of the study. This challenge led to a barrier in communication. However, the researcher overcame this challenge by employing the services of an interpreter, since the researcher did not understand the sign language the validity of the responses from the interpreter was questionable.

The next chapter presents the analysis and findings of the data collected.

CHAPTER FIVE

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

5.1 Introduction

This chapter presents, analyzes, and discusses both qualitative and quantitative data in relation to the study objectives. The study objectives which are first; to ascertain what mothers and other family members refer to as 'asram', to identify the local indicators and types of 'asram' and to explore mothers and other family members' beliefs and perceptions on the causes of 'asram. Also, local treatment regimens of 'asram' was explored and the healthcare seeking behavior of mothers and other family members were interrogated and finally measures of prevention. In this chapter, an evaluation of the socio- demographic data of both the qualitative and quantitative studies have been presented which helps in understanding certain behavioral characteristics of the study respondents and the general health information of the respondents in the study area.

5.2 Socio- demographic characteristics of Respondents

The socio- demographic profile of respondents is necessary to give the researcher a clear representation on the respondents of the study as well as make deductions on the subject under study. For the qualitative study, the focus group discussion was made up of four different groups with ten (10) members each in a section, whereas, the interview was made up 20 women, generally of an average age of thirty (30) years assuming the ages were correct. These interviewers were mostly Christians with basic education and were into farming. The socio- demographic profile for those who took part in the quantitative survey included; sex, age, marital status, level of education, religion, ethnicity and the occupation of the respondents as presented below.

Sex

The rationale behind this question is to know if there is a disparity and similarities between gender type and the knowledge, perception and management of 'asram'. There were more females involved in the quantitative study than males. This obviously communicates the important role mothers play in the area of child healthcare and confirms the role of women in the family in the African society as being responsible for the preparation of food for the family and caring for the children (Nukunya, 1992). Of the 187 respondents, 14.4% were males and 85.6% were females, reflecting the predominance of females in the study area and also critically due to the phenomenon understudy.

Table 2: Sex of respondents

SEX	FREQUENCY (N)	PERCENTAGE (%)
Male	27	14.4
Female	160	85.6
Total	187	100.0

Source: Researcher's Fieldwork, 2018.

The 14.4% males who participated in the study either did not have their wives' home at the time of visit, were widowers or genuinely found the research work interesting and very important to improve the lives of their children especially the newborns and ensuring quality of care and survival at birth. Again, in the Ghanaian cultural setting, it is believed that women can do little without the support of their men, thus, critical to include them in any health studies.

Age distribution

Assuming the ages given by respondents were correct. In this study age is very important since the focus is on child healthcare. Moreover, a respondent's age can or may determine

how well a baby is cared for and how best decisions are made in terms of providing healthcare and treating an illness.

The age distribution of respondents was skewed towards the age group thirty (30) years and above representing 65.8% compared to the age group thirty (30) years and below representing 34.2%. These percentages therefore show that age distribution of mothers and caregivers do not have any bearing on the health status of children since a number of issues in relation with children were encountered although the age distribution was skewed towards thirty (30) years and above.

Table 3: Age distribution of respondents

Age	FREQUENCY (N)	PERCENTAGE (%)
Below 30	64	34.2
30 – 39	62	33.2
Above 39	61	32.6
Total	187	100.0

Source: Researcher's Fieldwork, 2018.

Marital Status

Marriage per definition, is seen as "a union between a man and a woman such that children born to the woman are recognized as legitimate children of both parents" (Mair, 1934). This definition is thus useful as it recognizes marriage as an institution which helps to legitimize children. Furthermore, the ultimate goal of marriage according to Gyekye (1996) is procreation. Hence, since the study is on children, it was therefore necessary to know whether the respondents were married or not to affirm Mairs definition and Gyekye's claim on marriage. From table 4 below, the marital status of respondents was basically limited to whether the respondent had partners or not. More than half of the respondents indicated they

were married. These included approximately 44.3% men and women who constitute almost a quarter of the respondents. A good number of respondents were living together or cohabitating (25.1%), such that out of every 10 residents, 3 were most likely to be living together with a man or woman. Divorcees constituted less than 5% suggesting a low divorce or marital separation rate in the community. More than 10% of the respondents were single.

Table 4: Marital status of respondents

Marital status	**FREQUENCY (N)**	**PERCENTAGE (%)**
Single	37	19.8
Married	83	44.4
Divorced	8	4.3
Widowed	12	6.4
Co-habiting	47	25.1
Total	187	100.0

Source: Researcher's Fieldwork, 2018.

During the study, some respondents related their child or children's poor health to not being married and single. According to them, when a woman is married with a child, the male partner's responsibility is different compared to when not married. The results from table 4 shows otherwise where majority of the respondents responded to be married yet, frequently reported of ill- health among their children. From the researcher's observation, some of the respondents who said they were married may be substituting cohabitation to being married.

Level of Education

The level of one's education has a lot of influence on the choices made. The educational level of residents in Adamorobe cuts across almost all the qualification levels, from basic to

tertiary education. In the Table 5 below, less than ten percent (10%) had both tertiary and vocational education. Almost 10% could only complete junior high school (JHS) and senior high secondary school (JSS). A number of the respondents however did not have any form of formal education accounting for percent 24.1% whereas the majority of them had a basic education representing 61.0%.

Table 5: Educational level of respondents

Educational level	FREQUENCY (N)	PERCENTAGE (%)
None	45	24.1
Basic	114	61.0
Secondary	19	10.2
Vocational	5	2.7
Tertiary	4	2.1
Total	187	100.0

Source: Researcher's Fieldwork, 2018.

From table 5, there seem to be more respondents with no formal education and at most a basic education than those with a secondary, vocational, and tertiary education. A respondent's level of education was important in this study as it is one of the most important factors that accounts for differentials in child health and mortality (Manda et al., 2000). Also, Bhuiya et al., (1990) asserts that educated women are more knowledgeable about good nutrition and are better able to make informed health choices for themselves and their children. It was in this domain that data on the level of education of respondents was collected.

Religion

Abotchie (2008) quotes Ross as having asserted that, "Belief systems rather than specific laws guide what people do, and universally serve to control behavior". Considering the fact that different religions have diverse belief systems and doctrines, it was imperative to examine whether religious affiliation influences the beliefs of mothers and other caregivers on the cause and management of 'asram'. Also, to know the social bases of respondents' religious behavior (Assimeng, 1989), the religious affiliation of mothers and other care givers were asked to determine their beliefs on 'asram'. Most of the respondents were Christians (97.3%); and a few traditionalists (2.1%). The percentage Christians was quite surprising and conflicted with the beliefs of the people in the community when interviewed. During the interviews, most of the respondents exhibited their strong belief in the supernatural (Almighty God and the lesser god). From the interview, the number of respondents who believed in the lesser gods (akumfo) were more than those who ascribed their well-being to the Almighty God. There were other respondents who believed in the Islamic religion and some atheists forming 0.5 % of the responses gathered.

Table 6: Religion

RELIGIOUS BACKGROUND	FREQUENCY (N)	PERCENTAGE (%)
Christian	182	97.3
Traditional	4	2.1
Other	1	0.5
Total	187	100.0

Source: Researcher's Fieldwork, 2018.

The high percentage of Christians (97.3%) as compared to their shared beliefs and perceptions on the causes of 'asram' is a veneer as juxtaposed by Busia () cited in Nukunya

(). According to Busia, in Ghana and Africa, Christianity is a veneer, it is just in the skin, when push comes to show the Bible is put aside and other supernatural being lesser than the Almighty God is consulted. This is typical of the respondents as majority responded to be Christians, yet, strongly believed that 'asram' was a spiritual cause than a natural cause.

Ethnicity

Although the study was carried out in an Akan speaking community, there was a cross section of people from different ethnic backgrounds residing in the study community. Adamorobe is no more a homogeneous community due to modernity and migration, and can be classified as a heterogeneous community where people are traveling in and out in search job opportunities where as others have travelled in for lands. An example of this heterogeneity is the creation of new settlements in the community which are Obama and Maya.

From table 7 below, the ethnic distribution of respondents shows a dominance of the Akan (Akwapim, Asante, Kwahu, and Fanti), followed by Ewe and the Ga- Dangme, and a few from the northern regions of Ghana.

The dominant ethnic group was the Akan (73.3%) which was much expected since the study area is an Akan speaking area followed by the Ewe (14.4%) who were even less than half of the proportions of the Akan. These two ethnicities are all located at the southern half of Ghana. The Ga- Dangme's constitute 9.1% while people from the Northern part of Ghana, among others, are less than 5%. Deductively, there is an almost 50% chance that any resident selected from the Adamorobe community may be an Akan.

Table 7: Ethnicity of respondents

ETHNICITY	FREQUENCY (N)	PERCENTAGE (%)
Akan	137	73.3
Ewe	27	14.4
Ga- Dangme	17	9.1
Other	6	3.2
Total	187	100.0

Source: Researcher's Fieldwork, 2018.

It was therefore important to collect data on the ethnic composition of the respondents to inform the researcher whether as stated in the literature, 'asram' was limited to only Akan speakers or cut across other ethnic groups. Ethnicity further has an important effect on several family- related outcomes such as timing and the number of children a woman could have which in other ways may affect a child's chances of surviving (Bhatiah, 1982) due to large family sizes.

Occupation

Providing adequate and essential care for children demands a number of responsibilities and for that matter mothers and caregivers need to economically stable. It is in this view that the researcher was concerned and interested in knowing the occupation mothers and caregivers were engaged in. The results in table 8 below reveals that, the majority of the respondents in the community are into trading (35.8%) and artisanship (28.9%), specifically masonry, carpentry, hairdressing, and other handiworks influenced by the current development of the area with new settlements. About one quarter (22.5%) of the respondents were unemployed and therefore dependent on family members for their daily livelihood and survival. Since it is

a farming community, 9.1% of the respondents claimed to be into farming. Less than 5% were into a formal employment, and the fact that there are a few public servants shows how the area has developed overtime.

Table 8: Occupation of respondents

OCCUPATION	FREQUENCY (N)	PERCENTAGE (%)
Unemployed	42	22.5
Housewife	2	1.1
Farmer	17	9.1
Trader	67	35.8
Public Servant	5	2.7
Artisan	54	28.9
Total	187	100.0

Researcher's Fieldwork, 2018.

In sum, the respondents for both the qualitative and quantitative study were educationally inferior people who were mainly into trading as a result of the current development of the area and farming in a forest area. As result of the rapid expansion of the area, there are a number of immigrants making the community a heterogeneous one. In relation to their religious beliefs, majority of them claim they are Christians, but yet, have a strong belief and perception about the causes of an illness episode as being spiritual. These socio- demographic characteristics and how they influence the attitudes of respondents towards 'asram' will be discussed in subsequent sections of the next chapter.

5.3 General Health Information

Dealing with the health of children especially newborns as the focus of the study, the general health information pertaining to child health care in the community could not have been overlooked. Data on healthcare information stemming from pregnancy through to delivery and after delivery were collected. This includes; pregnancy history of mothers, place of delivery, knowledge and perception of common illness in the community and among families that affect newborns and children under- five, where mothers and caregivers go during an ailment and the healthcare seeking behavior of respondents, accessibility to health facilities, the kind of medicines used and the cost of healthcare in general.

5.3.1 Pregnancy and childbirth history

According to the World Health Organization (WHO, 2013) guidelines for essential care for mother and child healthcare, a pregnant woman must visit the nearest hospital for four (4) times for antenatal care at the very early stage of a pregnancy which is the first trimester, thereafter, through to the second and the third trimesters till delivery which in total is about thirty- six (36) to forty (40) weeks. This is basically to ensure quality maternal and neonatal care for their survival. Mothers were therefore asked about their history on ANC and PNC visits during and after pregnancy to provide the researcher basic information on the lifestyle of pregnant and nursing mothers in the community.

ANC visits during pregnancy

When respondents were asked which of the trimesters, they first visited the hospital for ANC and the number of times visited in the quantitative survey, close to half (46.5%) did not respond to their first visit and more than half (55.6) did not respond to the number times visited. However, 33.7% claimed they visited the hospital in the first trimester with a total of 4.8% number of times. Also, 16.6% visited in the second trimester for 2.7% number of times

while only 3.2% visited in the third trimester for 1.6% number of times. 35.3 % did not visit the hospital at all for all the nine months of pregnancy. Below is a table representing the outcomes of the ANC visits and the number of times visited by mothers in the community.

Table 9: Distribution of respondents' ANC visits

First ANC visit		Frequency (N)	Percentage (%)
	1- 3 months	63	33.7
	3- 6 months	31	16.6
	6- 9 months	6	3.2
	N/A	87	46.5
	Total	187	100.0
Number of ANC visit during pregnancy	1-3 months	9	4.8
	3- 6months	5	2.7
	6- 9months	3	1.6
	All 9months	66	35.3
	N/A	104	55.6
	Total	187	100.0

Source: Researcher's Fieldwork, 2018.

From table 9, close to half (46.5%) and more than half (55.6%) of the respondents who did not respond to the first ANC visit or the number of ANC visits was not surprising to the researcher. This was because, Senah (undated) in his work on maternal health in Ghana highlights this behavior of mothers. Pregnant women mostly in the early stages of conception, first to the third month, hide their pregnancies for various reasons, so often times, this trimester is missed. Most people and mothers believe that in the early gestation period, women and the fetus are very vulnerable, for example in a community like Adamorobe, the study area where 'asram' is well known and common, pregnant women will like to hide their pregnancies from persons with evil eyes who may cast the spell of 'asram' on them. In addition, ANC visits may also be linked to whether the pregnant woman has a husband responsible for the pregnancy or not, since the element of patriarchy is one of the factors that constraints women from seeking prompt care during pregnancy and at birth (Nukunya, 1992).

Lastly, accessibility to a health center, affordability (cost of payments), availability and acceptability of a health personnel at the time of visit (Good, 1987 and Tanahashi, 1978) are other factors that hindered majority of these pregnant women for attending ANC visits and sought for other alternatives like visiting traditional healers for herbal preparations for pregnancy which the respondents refer to as 'apenfoduro' and that for the unborn baby as 'asram aduro'.

ANC and PNC counseling

As stated earlier, as part of the WHO guidelines for essential care for mothers and children, healthcare practitioners are to provide counseling sections during ANC and PNC visits for all pregnant and nursing mothers. Respondents in the course of the study were asked if any form of counseling were given during the ANC and PNC visits by the health practitioners. Table 10, presents the responses given by mothers on the content of counseling given during the visits.

Table 10: Distribution of responses on the content of ANC and PNC counselling

Content of ANC		**Frequency (%)**	**Percentage (%)**
	Exclusive breastfeeding practice	21	11.2
	General Healthcare practices	59	31.6
	Family Planning	8	4.3
	All three	99	52.9
	Total	**187**	**100.0**
Content of PNC counseling	Child Feeding Practices	38	42.2
	General Healthcare Practices	51	56.7
	Family Planning	1	1.1
	Total	**90**	**100**

Source: Researcher's Fieldwork, 2018.

From table 10 above, majority of the respondents (52.9%) testifies that they were given ANC counseling on exclusive breastfeeding, family planning and general healthcare practices for the newborn. A number of the respondents (31.6%) only received counseling on general healthcare practices while 11.2% and 4.3% received counseling on exclusive breastfeeding and family planning only respectively. With PNC counseling, 56.7% representing the majority and 42.2% had counseling general healthcare practices and child feeding practices only. Just 1.1% of the respondent at the PNC visit had counseling on family planning. This therefore indicates that, the health practitioners specifically in the community's CHPS compound are performing well and following the WHO guidelines as required. These health practitioners when trained in all aspects in providing quality care for the newborns and children for example; training on providing Essential Care for Every Baby, Helping Baby Breath (Resuscitation) and routine checks with the appropriate protocols from the high health bodies like the Ministry of Health (MOH) and Ghana Health Service (GHS) can effect a great change in the lives of the newborns and their survival in the community.

Place of delivery

The place of delivery was considered important since it could determine the outcome of the delivery in terms of the equipment used, the hygienic condition of the place and the skills of the personnel conducting the delivery whether trained or untrained. Majority of the respondents (76.5%) when asked where they delivered could not respond to the question. During the initial stages of the data collection, the researcher was assisted by the community health nurses in locating the respondents. The presence of the community health nurses could be explained as resulting in the high percentage of the respondents not providing answers to the place of delivery. Apparently, the community health nurses have been educating the mothers on hospital delivery and safe delivery and therefore expected more mothers to be

utilizing the services of the health facility, which they were not. Irrespective of this, among the answers given, those who responded to have deliver at home had the next highest percentage (18.2%) that could be related when the researcher visited the respondents alone after familiarizing with them. Only 5.3% of the respondents delivered at the hospital or a health center. Home delivery was therefore asserted to be very common in the community and the reason again can be associated to Tanahashi's four (4) As which are accessibility to a health facility, affordability of the health services rendered, availability of a health personnel and acceptability by the health personnel.

A number of the respondents complained more about the affordability in terms of the cost involved all though more than half (68.4%) responded they are covered by the national health insurance scheme with 55.6% of their newborns being covered too. This certainly could not restrict mothers from access orthodox healthcare during pregnancy, at birth and after pregnancy. However, some of the respondents also complained about the attitude of some health personnel as they not being receptive which prevented them from visiting the hospital or the health center. Moreover, others shared their concerns in line with Coleman (1988), as he argues that, a person's social behavior is dependent on the 'rational' calculations that the individual makes about the options available to them. Hence, they chose other alternatives of healthcare for example, visiting a traditional birth attendant for delivery over the midwife in an orthodox health facility.

5.3.2 Exploring common illness

Common illnesses that affected newborns and children under- five (U- 5) in the community are also discussed here. This enabled the researcher to know which types of diseases newborns and children under five years of suffered most in Adamorobe.

The table 11 below presents the distribution of responses on newborn diseases in Adamorobe. The survey revealed that the most prevalent newborn disease in the community was malaria; about a quarter (20.9%) of the participants in the survey confirmed this. This newborn disease was followed by 'asram', which was the focus of the study. 'Asram' upon the researcher's interaction with mothers and other care givers during the interviews and survey was identified as being a malaria- related illness. It is therefore clear from the data collected where malaria was listing the commonest followed by 'asram'. Indeed, 15% of the respondents indicated that asram is one of the common newborn illness in the community followed by measles, fever. Convulsion, boils, diarrhea and cough. Nonetheless, about half of the respondents (44.4%) had no idea of the common newborn diseases in the community. Many of these people thought of minding their own businesses therefore did not know or were not willing to throw responses on the common diseases affecting newborns in the community.

Table 11: Distribution of responses on locally reported top 8 common illnesses for children

Twi language (Adamorobe)	Approximate English translation	Frequency (N)	Percentage (%)
Ebun/atridii	Malaria	39	20.9
Asram	Asram (marasmus)	28	15.0
Ntobro	Measles	13	7.0
Atridii/Fever	Fever	10	5.3
Sroyare/Anidane	Convulsion	5	2.7
Pongpong	Boils	3	1.6
Ayemuhwe	Diarrhea	1	.5
Ewa	Cough	5	2.7
DK	DK	83	44.4
Total		**187**	**100.0**

Source: Researcher's Fieldwork, 2018.

Malaria representing the highest percentage of the diseases from the data collected confirms the literature on malaria as the most common cause of death in children under five years of age in Ghana by the Ministry of Health (MOH, 1999). A study conducted in two rural communities in Ghana which are Galo- Sota in the Keta District and Obosomase in the Akwapim North District by Ahorlu et al. (2007) also listed malaria as the most common illness in the two communities among children and pregnant women although there have been a number of malaria control programs in Ghana. In addition, malaria out of the top five (5) morbidity which includes upper respiratory tract infections, diarrheal disease, skin diseases and hypertension from the out- patient department data recorded by the Ghana Health Service (GHS), 2010 represented the most common with 47.4% from 7.7%, 4.0%, 3.6% and 3.0% respectively. Important to note, none of these works identified 'asram' as malaria- related like it has been done in this study though the focus was not on malaria but 'asram'.

5.3.3 Conceptualizing and Perceptions of Ill Health

In Adamorobe illness is conceptualized depending on a number of factors, that is, the type of illness whether severe or not severe, is it natural or not and whether the illness is a hospital illness or not- for- hospital illness. Mostly, the concept of an illness will predetermine how that illness is perceived. For example, 'asram' is conceptualize as a newborn or childhood illness not- for- hospital and as such, perceived to be a spiritually caused illness. This reverberates what is in literature, showing that, people define illness in a subjective way which may depend on a number of factors such as 'making time to be sick' and 'not having enough money' (Vuckovic, 1999; Homedes and Ugalde, 1993).

For the community studied and the responses from interviews and survey, illness, for example ‘asram’ is classified as an evil illness, from an evil person with evil eyes who cast the spell on mothers and the unborn babies in the uterus just for evil doing and selfish means. Some other evil persons were identified as engaging in this act to gain economic means. It has now become lucrative, where people with ‘asram’ intentionally cast the spell on mothers and babies and in turn heal them for money.

Generally, ‘asram’ is conceptualized as an evil illness from an evil eye and therefore perceived to be spiritual in the community. Nonetheless, there are other group of respondents who belief and perceive it to be a normal illness like malaria, measles and diarrhea and therefore not spiritual but natural with a few who perceive it to be both natural and spiritual which will be fully analyzed and discussed in the next chapter. These perceptions of the respondents however, are similarly related to Murdock’s theory on illness causation (Murdock, 1980). Knowing of the general healthcare information of the community, it is necessary to capture the healthcare facilities available which will later reflect the healthcare seeking behavior of the respondents and how they manage ‘asram’ also in the next chapter.

5.3.4 Healthcare Facilities in Adamorobe

The respondents mentioned a number of hospitals and places they sought for healthcare. The researcher noted that, the place visited for healthcare were rationally selected based on the person’s choice and calculations in terms of finances belief associated with the illness just as Coleman (1988) argues on why people make the choices the make in his rational choice theory. Even during pregnancy, mothers had their own preferences as to which facility to visit, whom to see and how to get there, which actually contradicts the 4As of Tanahashi (1978) as accessibility, affordability, availability and acceptability were not the case here. Mothers had options available to them, hence, made choices based on these choices. Below is

a table with the list of facilities, maternity homes, shrines and herbal homes available and accessible to the people of Adamorobe in and near the community.

Table 12: List of healthcare centers

Orthodox health facility	Traditional centers	Churches for healthcare
Shai- Osudoku Government Hospital, Dodowa (referrals)	Shrines and homes of Traditional Healers	Awoyo Church
Tetteh Quarshie Hospital, Mampong (referrals)		Adenta Herbal and Spiritual Church
Nsawam Government Hospital, Nsawam (referrals)		Odifo Nkansah Church
Damfa Clinic, Damfa		
Valley View Hospital, Oyibi		
St. John of God Hospital		
Mother of Love Maternity Home		

Source: Researcher's Fieldwork, 2018.

In this chapter, the socio- demographic profile of the respondents has been presented. In addition is the general health information of the respondents in the community which covered pregnancy and childbirth history of mothers, common newborn and childhood illnesses, conceptualization and perceptions of illness and the healthcare facilities and areas visited for healthcare are all presented. The next chapter presents analysis and discussion on the local beliefs, perceptions and management of 'asram'.

CHAPTER SIX

LOCAL BELIEFS, PERCEPTIONS AND MANAGEMENT OF ASRAM

6.1 Introduction

As noted earlier, the major focus of this study is to gain insight into the cultural framework within which 'asram' is managed. To achieve the objectives of this study, this chapter focuses on analyzing both the qualitative and quantitative data collected intermittently, followed by discussion. The discourse will begin with works on nosological notions in traditional societies to address the first objective on knowledge of 'asram' and how it is classified. This is followed by local beliefs and perceptions as to what the causes are, which is categorized into two major sections as spiritual orientation or natural pathogens or both and lastly, the management of 'asram'. Management as the main variable is measured at two perspectives, that is, treatment and prevention. Management also includes what mothers and other caregivers do when a child has 'asram', interrogating their health- seeking behaviour.

6.2 What is 'asram'?

In African traditional societies, diseases are mostly classified in a number of ways, such as, serious and not serious or for hospital and not- for hospital diseases or illness. Symptoms relating to childhood health conditions like convulsion, measles, malaria, bloody diarrhea, poor feeding and lethargy are well recognized as serious and requires immediate medical attention (Hill et al., 2003). However, there are some diseases or illness which have been locally classified as not for hospital with no medical or English equivalent recognized as serious but need a spiritual intervention and the use of herbs to cure or prevent. Very common and mostly referred to among the Akan- speaking communities in Ghana to be specific is 'asram'.

A number of studies have come out with various traditional classifications to this neonatal phenomenon. For instance, Abrah (2013) found out from her study on neonatal mortality among the Osiem of Eastern Region of Ghana that 'asram' is a blanket term used to describe a collection of neonatal illness which results in neonatal mortality as a 'non-hospital' sickness and therefore regarded as a natural occurring phenomenon.

According to Hill et al. (2003), asram is attributed to a situation where the stomach or breast of a pregnant woman is seen by a person possessing a bad eye. By this, the said person does not have clean intentions for the expectant mother. Bazzano et al. (2008) also found 'asram' as the most commonly mentioned newborn illness in their study. They defined 'asram' as the main serious illness which affects newborns and known to be transmitted to the baby in the utero by other people intentionally (because of jealousy or antipathy) or unintentionally. Additionally, in a study conducted in Techiman and Kintampo North and South, 'asram' was perceived as a severe and common illness with human attributes (Okyere et al., 2010).

It was in the light of these classifications, the researcher sought the views of the respondents in Adamorobe on their knowledge about asram, symptoms related to 'asram' and how it is described. From the data, the researcher identified eight (8) ways by which respondents know about 'asram' as a newborn illness. These ways included: (a) green veins on the forehead, (b) open fontanel (line in head), (c) malnutrition (extreme weight loss), (d) jaundice/ anaemia (changes in skin color), (e) poor latching on nipple or sucking ability, (f) boils, (g) crying inconsolably and very loud, and lastly (h) engorgement of the breast with thick yellowish bloody discharge mostly experienced by pregnant women during pregnancy. Similar to other cultural groups in developing countries and around the world, newborn conditions or the outcome of birth are given variety of descriptions which in effect have some life- threatening decisions on the survival of the newborn.

Just as 'asram' is described above in the context of the culture of the people of Adamorobe, it might have same or different description in other parts of the country. For instance, in a research conducted by Okyere et al. (2010) in the Brong Ahafo Region of Ghana, specifically in Kintampo North and South and Techiman on 'asram', respondents described the symptoms of 'asram' to include a newborn with green- black veins, hydrocephalous, emaciation, pale skin, clenched fingers with eyes wide open and difficulty in breathing. Also, in a study conducted by Bazzano et al. (2008) in the same region but only at Kintampo North and South districts 'asram' was described as green veins on baby's body, persistent crying and growing lean with same description in Abrah's study at Osiem, in the Eastern Region of Ghana. Similar to these descriptions above in the various studies are what the researcher also discovered from her study in Adamorobe in the Akwapim South District of the Eastern Region. Therefore, elaborating below are the various classifications shared by respondents during the study.

6.2.1 Green veins on forehead

This was illustrated by the respondents as a thin green line mostly appearing on the forehead of the newborn baby at birth. According to the respondents, a normal healthy newborn baby must not have any traces as a colored vein or any form of such abnormalities on the skin. In respect to this assertion, any unfamiliar sign like a green line once seen on the forehead of the baby is an indication that the baby is sick and having some health deficiency which they ascribe to evil force. This symptom was commonly mentioned in other studies on asram (Bazzano et al., 2008; Howe et al., 2011; and Okyere et al., 2010). Describing how she recognized that her daughter had 'asram', Sisi Afua narrated her ordeal:

> *... I went to deliver at the hospital and I had a safe delivery. I went back after some weeks for PNC visit and the nurse asked whether I was not breastfeeding the baby well because her weight had reduced with some green veins showing on the forehead. So there was a lady sitting by me at the hospital and she told me it was asram and that I need to treat the baby quickly.*

While others associated asram with green veins on the forehead, others also associated it with just a line in the head. Naturally at birth, every newborn is known to have an open fontanel resulting from the formation of the baby and it takes time to go away as the newborn develops. In the cultural setting this line is not normal, and therefore local beliefs regard this as a neonatal illness or asram. It is also described as big head divided into two to four parts by depression on the skull (Okyere et al., 2010). This is how Maame Esi described the condition of her son:

> *... My son's head was too big. It looked like two different heads put together and you can see the line in it. It is very dangerous (eye hu paa), and it can later let air into the baby's head.*

A traditional healer also shared his view:

> *Many babies are brought here with line in their head for treatment. It looks like green sometimes black line from the lower part of the forehead through to the back of the skull. It is very dangerous and can easily kill the newborn if not sealed well and early with herbs.*

6.2.2 Extreme Weight Loss

Another way the respondents described 'asram' was extreme weight loss in their babies. It is of a great pride for every parent or mother to see the child, especially the newborn baby gain weight. In Ghana where weight gain signifies riches, peace, and healthy living, no mother would want the baby to be below a certain weight. According to the respondents, some mothers are applauded by midwives and nurses during post- natal visits for taking good care of their babies when the baby weigh very high or above the average weight expected. A mother whose baby weighs below the average, would be reprimanded by the health personnel. Traditionally among the Krobo, mothers tie bead around the waist and wrist of babies to determine the physical development of babies (Senah, unpublished work). Bazzano et al. (2008); Okyere et al. (2010); Hill et al. (2003) also described 'asram' as newborn

growing lean and tiny body. Kwakyebea, a mother of three who looked very sad described how her last born who happens to be the only girl had 'asram':

> *... I started noticing a change in her weight, she became very lean when she was a month old but I did not know what was happening. I was carrying her when an elderly man met me and asked if my child was sick.*
> *I replied, I did not know and that I have even taken her to the hospital for diagnosis and treatment but to no avail. They did not give me any specific medication or told me about the cause of my child's sudden weight loss. This man then advised me to stop visiting the hospital and look for an alternative for it was not a hospital sickness but it was asram…*

Another respondent, Mr. Ofori whose son suffered from 'asram' and could not walk till he was two (2) years old gave his description of the ailment as follows:

> *… Hmmmm, 'asram' is a bad ailment that affects newborns. When a baby is infected, it can make the baby grow lean (waaye kitiwaa) like an HIV patient. My son almost became a cripple at birth. His developmental process as a baby, especially when he was due to walk was very difficult and challenging, till I got some herbs to cure the baby. All these indicators to me, were signs of asram. Yes, that is it!*

6.2.3 Changes in skin color

Changes in the skin color of babies were another way respondent identified asram. Okyere et al. (2010) described pale skin as "obosomakotre" (chameleon) since it changes in colors which the name normally given to this description. This in medical terms is known to be newborn jaundice. Changes in skin color at birth according to medical practitioners can also mean anaemia in newborns and children under- five. Among the people in the study community, seeing or coming across a chameleon during pregnancy is believed to be a sign that the expected baby would change into different colors; sometimes white, blue or pink and this indicates 'asram'. According to Mr. Ntow:

> *… Ahhh! 'Asram', it is very common in this community. Mostly you see the baby change in color and this is not normal at all…*

Another herbalist interviewed also described 'asram' as:

> *'Asram' makes the baby white at birth. Sometimes they even die, or come out very tiny and cannot grow big or increase in weight. I know it to be part of pregnancy complications and the child gets it from birth.*

6.2.4 Engorged breast before delivery and poor latching

In addition to these descriptions, some women during pregnancy gets engorged breast which discharges yellowish fluid believed to be a spell cast by some evil persons. Engorged breast in the medical context is well recognized by medical practitioners as such. In reference to the inability to feed, some babies are said to develop loose jaws and are not able to feed at birth. To some respondents this is the work of the evil. Inability to breastfeed a baby within the first three hours of birth in the medical sense means not putting the baby to the breast early after birth to initiate a quick flow of the breast milk and reducing the engorgement of breast. This is an experience of a nursing mother:

> *...I was affected during pregnancy. At a stage (7months) in the pregnancy I started seeing discharges from my breast like breast milk. I reported to the hospital but they told me it was nothing, but I was feeling pains in my breast. I later went to an herbalist who confirmed it was 'asram'. 'Asram' does not only affect babies but also affect pregnant women.*

6.2.6 Boils and Loud cries

According to the respondents boils on babies as well as babies who cry inconsolably and loudly were all symptomatic of asram. Respondents described this incident as resulting from an evil person with 'asram' in the eyes seeing the baby at birth, seeing the clothes of the baby being dried outside or hearing the sound of the baby, especially at night as they pass behind or by the house. This is what is popularly referred to in the Akan community, '*abofra nnsu anadwo*"- (babies do not cry at night). Maa Dora, described her experience with her neighbor's daughter:

> *...oooooh yes! My neighbor's two- week old baby used to cry out very loud to disturb the whole neighborhood. In this community we grew up knowing some of these signs as 'asram'...*

Essentially, some of these descriptions gathered from the interviews are consistent with the findings from previous studies in other parts of the country. For instance, green/ black veins,

a big head, and the newborn growing lean were all descriptions identified by Okyere et al. (2010) in their study in Techiman and Kintampo, all in the Brong Ahafo Region of Ghana.

6.3 TYPES OF 'ASRAM'

The researcher sought to classify 'asram' based on the descriptions given by respondents. In relation to this, eight different categories of asram were identified from the interviews and focus group discussions. These descriptions included: 'asram borododedwo' (borededwo being roasted plaintain, meaning asram that makes the baby dry and skinny like roasted plantain; known as marasmus, a type of kwashiorkor); 'asram abosomakotre' (abosomakotre referring to a chameleon which makes baby change into different colors); 'asram tipae' (open fontanel); 'asram antonanwotwe' (referring to early neonatal death thus within the first week of birth); 'asram mpompo' (boils), 'asram nufosuo' (yellowish fluid from the mother's breast during pregnancy); 'asram bofurotu/ borodo' (being hydrocephalous, that is, retained fluid in the head), and 'asram ntose' (the type that makes the baby bloat with weeping skin). Since the description of asram differ in context, some of the types identified in this study differed from that of other studies or were similar. A typical example is the type of asram to pale skin which is 'asram fufuo' in the study of Okyere et al. (2010) differs from that in the findings of this study where pale skin or changes in skin color is 'asram abosomakotre'. Other types identified by Abrah (2013); Bazzano et al. (2008) and Okyere et al. (2010) were asram pipi (difficulty in breathing), asram puni (big head/ line in head), asram suro (clenched fingers with eyes wide open), whereas all categories of newborn illnesses were referred to asram. Indicated below is a table of the various local categories of 'asram.

Table 13: The various local categories of 'asram'

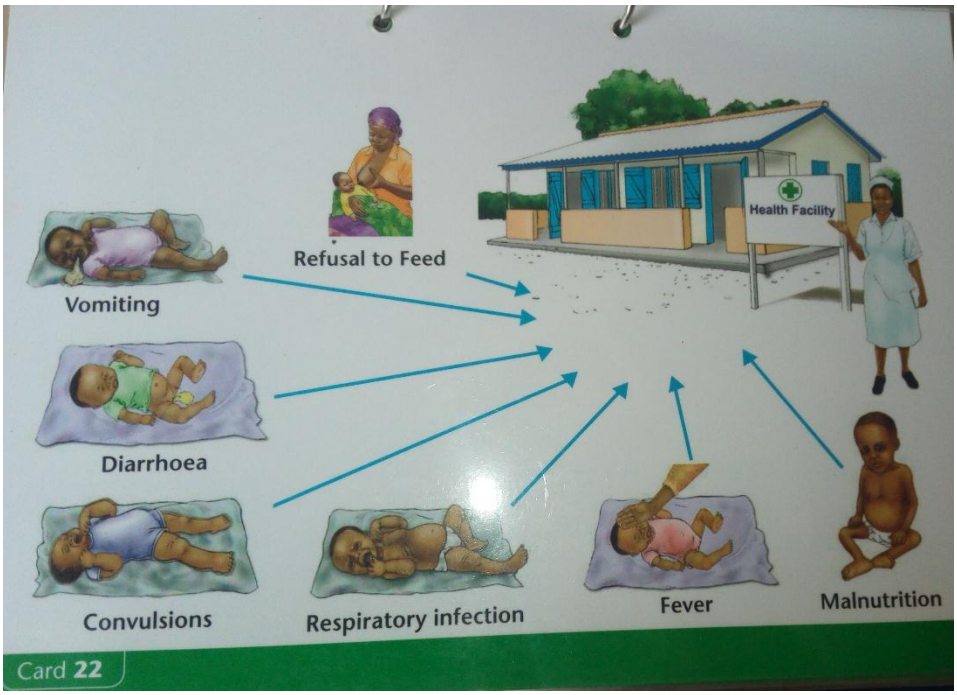
	Categories	English Translation	Description	Perceived causes
1	'asram borodedwo'	Dried or roasted plantain	Extreme weight loss, tiny baby	Spiritual/natural
2	'asram abosomakotre'	Changes in skin color	Newborn baby is likened to a chameleon	Spiritual/natural
3	'asram tipae'	Line in head	Newborn seen with green/ black veins in the head and also a line in the head at birth.	Spiritual/natural
4	'asram boforotu/ burodo'	Swollen head	Newborn with a soft swollen head either full head or half way of the head	Spiritual/natural
5	'asram antonanwotwe'	Baby unable to suck or feed	Newborn with a loose jaw	Spiritual/natural
6	'asram sudindin'	Loud cry	Newborn crying inconsolably	Spiritual/natural
7	'asram nufosu'	Swollen breast	Pregnant women/ nursing mothers with an enlarged breast	Spiritual/natural
8	'asram mpompo/ ntose'	Boils	Newborn with boils on skin	Spiritual/natural

Source: Researcher's fieldwork, 2018.

The different types of 'asram' mentioned are perceived to have different levels of severity. For example, 'asram borodedwo' and 'asram antonnanwotwe' are considered to be particularly dangerous according to the respondents and most result in rapid death if untreated. Again, some similarities could be drawn between these categorizations and those made by Okyere et al. (2010). In their study, the different types of 'asram' were grouped based on the symptoms and the causes. Specifically, they identified some types of 'asram'

which were similar to those found in this study. These included: 'asram ntose' (small multiple swellings on skin); 'asram borodedwo' (small body, stiff like plantain and difficulty breastfeeding) and 'asram puni' (big head divided into two parts due to depression on the skull). However, they mentioned other types of 'asram' such as 'asram pipi' (difficulty breathing); 'asram nkoto' (shea butter, substance around eye); 'asram kwashiorkor' (big stomach) and 'asram suro' (convulsion, clenched fingers with eye wide open) which were not included in this study's categorization.

To seek the perception of the health practitioners in the community at the CHPS compound, a picture was found and explained by the nurses indicating in their perspective what mothers refer to as 'asram'. Indicated below is a copy of the picture.



Source: Researchers' Fieldwork, 2018.

Identifying the symptoms of illness associated with ‘asram’ and the various local categories, the next section of the analysis focuses on the beliefs and perceived causes of ‘asram’ as one of the specific objectives of the study.

6.4 Beliefs, perceptions and approaches to illness causation

To conceptualize the beliefs and perceptions about ill- health causation in the study community, Murdock’s theory on illness causation, one of the main theoretical underpinning of this study was used. Murdock, (1980) in his assertion of illness causation made a clear distinction between natural and supernatural causes of ill- health. It is in light of this, that the study sought to find out the perceived causes of ‘asram’ in the perspective of both mothers and care givers, traditional healers and orthodox healthcare practitioners in the study area. The study found out among mothers and caregivers as well as the traditional healers that, the perceived causes of ‘asram’ were constructed and interpreted within the socio- cultural context of the community whiles the orthodox healthcare practitioners shared counter opinions beyond that. The narratives on the causes of asram included five (5) major themes which are; biological, spiritual, physical, environmental, and attitudinal causations of ‘asram’. These narratives are analyzed in two main categories which are the spiritual orientation associated with the beliefs and perception of the causes of ‘asram’ and natural pathogens and occurrences (biomedical orientation). Also included is the narrative from respondents who perceived both spiritual and natural orientations as the cause of ‘asram’.

Data from the research survey also presents the distribution of responses on the beliefs and perceived causes of 'asram'. From table 14, out of the total number of respondents, 119 respondents representing 61.34% more than half of the total respondents were of the view that 'asram' is spiritually caused. This implies that the majority of the respondents perceived 'asram' to be spiritual. Only 28.35% and 10.31% of them believed that the disease was caused through natural causes (biomedical) only and both natural and spiritual causes respectively.

Table 14: Frequency and percentages of responses on the causes of 'asram'.

Causes	Frequency (N)	Percentage (%)
Spiritual causes (evil eyes)	119	61.34
Natural causes (biomedical)	55	28.35
Both natural and spiritual causes	20	10.31
Total	**194**	**100.0**

Source: Researcher's Field work, 2018.

These results are explained in details making reference to each cause from the table with narratives from the focus group discussion and interview with mother and other caregivers. Narratives from key informant interviews with traditional healers, traditional birth attendants and the orthodox healthcare practitioners from the Adamorobe community and health care facility visited are included in the analysis.

6.4.1 Local understanding of 'asram' (Spiritual Causation)

In Adamorobe, majority of the respondents (61.34%) believe and perceive 'asram' to be a spiritual illness caused by an evil person. This evil illness or disease, according to the respondents, can be cast on the expectant mother during pregnancy or transferred to the baby during the puerperium. The same sentiment was shared by some respondents in the study of Okyere et al. (2010). Thus, to them, people with evil eyes have the power to transfer sickness

to pregnant women or even to babies when delivered. Some malevolent herbalists in some cases, the respondents added, deliberately transfer the diseases to their innocent targets since they are the only people with powers to heal them.

After describing 'asram', its indicators or symptoms and the types available in the community, Ama Boaduwaa, a mother of two who beliefs her first child suffered from 'asram' due to an evil eye that watched her when her pregnancy was seven (7) months old. She recalled her experience thus:

> *... Eeeeeeiiii, 'eye hu ooo' (it is dangerous)! I went to the stream to fetch water oo, in the process of carrying the pan, my tummy got exposed and someone saw me and cast spell on me. Immediately I got home that evening, I had some birth complications and upon consulting an herbalist in our community it was confirmed my unborn baby and I had 'asram'.*

Another woman, Kweibea also narrated how a misunderstanding between her and the mother-in-law (whom she believed gave the child 'asram') led to the cause of her child's asram. She observed thus:

> *... As for this one it was brought to my child at home after my delivery. But I can't tell exactly when she had it.... My mother- in- law was not in support of me marrying her son. Apparently, this woman is married to her son in the spiritual world and warned me to stay away, but I did not. As a result of being disobedient to her, she cast the 'asram' on my baby at birth when she visited us.*

In addition, Akosua, a cohabiting mother of four who believed 'asram' has been commercialized in the community by some herbalist and evil people since they (the herbalist and evil doers) have the power to heal asram, she said:

> *... 'Asram' is cast on a baby by an evil person... it exists, and it is in the eyes of some evil ones (ewo aniwam mu) ... At times, the herbalist we take asram medications from during pregnancy are the same people who transfer or cast that illness on the newborn. They do that so you can come back to him for healing, for which they take money. So, it is also a form of economic activity here for some herbalist and wicked people (witches and wizards) ...*

A seventeen-year mother of one (1), Ewurasi, whose grandmother had told her how asram could be transferred spiritually, also shared her experience in the FDG:

> *… It is a sickness that can be transferred to a newborn by someone (wotumi de ma). They do so as soon as you are pregnant. So, there are herbs for pregnant women against that. Also, through being helped by someone with evil eyes to carry something on your head, it can easily be transmitted. … The entire cause of 'asram' is a spiritual attack…*

Finally, Sisi Broni, an elderly woman who does not believe in orthodox medicines is of the view that pregnant women must take herbal medicine, which protects them from evil eyes and 'asram' during pregnancy. Accordingly, to her, her daughter did not heed to her advice when she was pregnant and that is what she believed resulted in her grandson's asram.

> *… Now the nurses say and tell pregnant women not to take abibiduro (herbal medicine) during pregnancy but that was how we were trained to do which does not give room for any evil spell cast on them or their babies at birth. But now that they do not take, they are affected. Asram is believed to be an illness transmitted though evil eyes by an evil person.*

In most communities in Africa (for example in some communities in Nigeria) twins are described as 'spirit children' and perceived as evil and an omen to the families in which they are born. These children are therefore killed at birth (Senah, 1993). Again, Senah (1993) further reveals in his study how twins in some parts of Sudan are also described as 'spirit children' and are believed to be birds and left in baskets on treetops to assist them fly back to where they came from. Similar to the classification of 'asram' as evil illness in Adamorobe, most locals do not know how people with 'evil eyes' cause 'asram' likewise twins being evil and a bad omen. Many of the respondents mentioned that people with 'evil eyes' cast 'asram' through some extra supernatural powers invested in them as humans, hence were seen as witches. The respondents generally would say, it is *honhomfi* that gives them that extra power. A renowned herbalist who at the same time conducted deliveries as a traditional birth attendant said:

> *…there are some people who knowingly or unknowingly who have the 'asram' spirit. Some greedy mischievous people intentionally visit shrines to ask for the spirit to harm newborn babies. Those people are the evil ones. But there are some who do not have any idea about how 'asram' was transferred to them. Those ones mostly were victims of 'asram' at birth, and the course of treating the illness, they possessed the spirit.*

This is typical of what Evans- Pritchard (1937) defines as witchcraft in his study among the Azande and also related to Assimeng (1997) in his study on witchcraft scene in Ghana. "Witches are people, male or female, who are believed to possess inherent supernatural powers which they use (knowingly or otherwise) to harm others or to benefit themselves" (Evans- Pritchard, 1937). The respondents further explained that, the evil doers (witches) cast 'asram' on mothers and newborns out of pain, jealousy, hatred and envy but ideally, to be envious of someone, the person must be richer, healthier or possess something worth enviable that you can be jealous off, but that is the case in Adamorobe. This further corroborates to the point made by Evans- Pritchard (1937) that witchcraft does not strike at random and that for one accuse the other of witchcraft as done by the respondents, then the supposed victim must have some form of relationship with the accused. Indeed, these accused witches and evil people with 'asram' in Adamorobe are no other persons but close relations either by family ties, friendship or as a neighbor.

Although most of the informants (97.3%) responded to be devoted Christians, it is also clear here that they did not compromise their beliefs and perceptions to their religious fate with majority of them believing in supernatural forces and spirits as the cause of 'asram' (Busia, 1951). 'Asram' is therefore labelled as *abosam yare*, devilish and evil among the people of Adamorobe and only requires spiritual intervention and care by the use of herbs and other spiritual incarnation. This belief and perception are strongly shared among mothers, caregivers and some local healthcare practitioners (traditional healers and traditional birth attendants) in the community. Although 'asram' is strongly believed to be an evil illness,

there are other illnesses like malaria, measles, cough that are perceived as natural, hence requires a biomedical care. The beliefs and perceptions of illness is different in the biomedical view.

6.4.2 Natural Pathogens and Occurrences (Biological Causation)

Interestingly, some respondents during the qualitative study found biological and medical grounds for which they believe were the major causes of the ailment. They opined that some natural pathogens from the bits of insects and animals during pregnancy or the exposure of newly born babies to these microorganisms could be causes of this illness. Nevertheless, some were of the view that the inability of some pregnant women to visit the hospital frequently for ANC could also be the cause of this disease. In addition, they believe that delays during childbirth at the hospital coupled with some 'unsafe' practices (for example, force delivery) and genes of couples may result in 'asram'. This finding supports the natural causation of illness in the works of Murdock (1980) and others (Agyepong and Anderson (1994); Ajaiyeoba et al., (2003); Lynn and Thompson (1996); and Kauchali et al., (2004)).

This is how, Kwakyewaa, a nursing mother who was not able to visit the hospital due to financial difficulties described how the child got 'asram':

> *I was not going for ANC when pregnant because I could not do my labs due to financial hardship. I rather took herbal medication from a certain herbalist here called Osofo Boakye (not real name). I believe my inability to visit the hospital during my pregnancy caused my child to suffer from 'asram'.*

Maa Fante, a TBA in the community who appeared angry during the interview blamed the cause of 'asram' on some of the birth practices by some midwives in the hospitals. She also added:

> *... Forced delivery is very bad and should not be encouraged in our hospitals. It is a major cause of 'asram' in this community.*

In addition, Mr Tagoe, who regretted for not heeding to the advice of a medical doctor about he and his wife's sickling status added this:

> *... Me, I think it has to do with a couple's genes or blood group. Before I married my wife, we had a blood test, I was positive and my wife was negative. This meant that my wife's blood group was down, so the doctor advised that we do not get married. He told us if we do and we give birth, the child would have some symptoms like jaundice and anaemia which would cause the child to have a low blood count normally described in our local belief as 'asram'. I think, this is the cause of my child's 'asram'.*

In addition to the biological reasons' respondents gave as the cause of 'asram', they also the identified the appearance of expectant mothers as a source of 'asram' in the community. They pointed out that the way a pregnant woman dresses has an effect on the health of her baby. As a result, an indecent exposure of a pregnant woman, in their views, could have a serious damage on the health of their children.

Sisi Mary shared the experience of her sister who did not dress 'properly' when she was pregnant. To her, dressing improperly as a pregnant woman has many implications. She observed:

> *'Asram" has to do with your way of dressing when pregnant. I didn't wear short dresses to expose any part of my body when pregnant. Mostly during pregnancy if you do not take the asram herbal medication and dress to cover your whole body especially your chest, breast, cleavage, and calf that is when an evil person can cast that spell on you (wodebeyewo) or the baby. My sister never borders about the way she dressed when she was pregnant; the child ended up getting the sickness.*

During the FDG, another respondent, Papa Kwesi also elaborated more on some of the attitudes of some pregnant women which could result in the ailment:

> *Yes, eating outside when pregnant, exposing your hair, cleavage, and calf and other parts of your body as a pregnant woman can result in you contracting 'asram. In this case, those with the evil eyes feel you're teasing them with your pregnancy when they see you expose these parts of your body when pregnant; also, when you wear fitting dresses, they can disturb you a lot.*

Meanwhile, Asabia, who looked scared when sharing her experience during the in-depth

interview said:

> *Eeiii, as for me, I was very careful during my pregnancy. This sickness can be given to the mother through her cleavage when exposed, calf when not covered, hair when not covered with a scarf and the like. In addition to these things, a pregnant woman is not supposed to eat outside, be seen most often and all manner of things.*

Not only can a pregnant woman's appearance cause the child to be infected with 'asram', but an unsanitary environment, according to some respondents, can also lead to the ailment. In the works of de Savigny et al. (2004), some pregnant women do not keep themselves and their environment hygienic and while some do not eat well, others do not sleep under treated mosquito net when pregnant. An extract from Osofo Emma, a TBA, an asram healer, a spiritual church pastor and a herbalist sums up this assertion:

> *… They stay home and eat all sorts of starchy foods with meat. In addition, they live all kinds of lifestyles like cooking at places with high temperature. This attitude exposes them to excessive heat; already, this pregnancy has increased their body temperature. Furthermore, the environment is not clean, the whole town is filled with mosquitoes and they do not sleep under treated mosquito nets too. How would such a person be well? The expectant woman herself is malaria- infected, and she transmits that to her unborn baby through her blood…this is a major cause of the asram in this community.*

Equally, Kojo, another respondent who vehemently blames asram on the insanitary way most women handle their environment in the community added this to what Osofo Emma said:

> *… Mostly, some people say they don't have anything like that when they are pregnant, but they experience that when they deliver and an evil person cast the 'asram' on their baby. To the best of my knowledge, I don't believe it and it's not true! These women live in the polluted environment and deliver their children in this same polluted environment. There is some airborne pollution that affects human health, so at birth if you don't get a clean environment to nurse the baby this can create a whole lot of illnesses for the baby. Basically, environmental pollution (emphasis mine) is one major cause to 'asram".*

In addition to the environmentally related causes of 'asram', the attitudes of some expectant mothers are the causes of their children's ailment. According to Adjei (2003), personalistic is the attitude, behavior and some practices of a pregnant woman that result in attracting ill-

health like ‘asram’ as mentioned by some respondents in the study. From the viewpoints of these respondents, the way a woman carries herself about and the kind of attitude she puts up when pregnant is very key and have a direct impact on the health of her baby. To them, a pregnant woman is not supposed to even eat certain kinds of food since those foods can result in ‘asram’ in their babies; hence, they advise pregnant women to avert these problems. A renowned TBA and herbalist in the community, Agya Koo Nimo, is of the major proponent of this claim.

> *I always advise women especially those who visit here (herbal center) not to eat certain kinds of food such groundnut, ripped plantain, and banana since these foods contain certain substances which are not good for pregnant women and cause ‘asram’ in babies and even sometimes 'atridee' (malaria) at birth.*

Not only was the kind of food an expectant mother eats was the problem, but also her life style when pregnant can also have detrimental effect on the baby. Mr. Yeboah, a very worried husband also shared his wife’s attitude during pregnancy and how they were advised by some herbalist about the consequences of such lifestyle.

> *... My wife was advised by a herbalist to be careful with her lifestyle and dressing when pregnant. She was told not to expose her body and hair just as she has done now that you have visited. Hhmmm! But my wife keeps doing contrary to the directives given. She's always exposing herself with the reason that she's feeling hot. She doesn't listen to me...*

Table 15: Distribution of responses on the natural causes of asram.

Natural Causes	Frequency (N)	Percentage (%)
Biological	12	21.82
Physical appearance of pregnant woman	10	18.18
Environmental (sanitation)	12	21.82
Attitudinal	21	38.18
Total	**55**	**100.0**

Source: Researcher's Field work, 2018

In order to find out which of these causes was most attributed as the cause of 'asram', the researcher used the quantitative study to establish the highest cause of the illness in the community. To do this, a multiple response question was used in which respondents in the survey were asked to select as many causes as possible. In this case, a respondent selected as many causes as possible without any limitation. Hence, the cause with the highest score would be the cause respondents mostly attributed 'asram' to. Table 14 displays the frequency and percentages of the various causes of 'asram' in the survey.

From Table 14, out the 55 respondents who attributed 'asram' to a natural cause, 21, which represents 38.18% believes that the attitudes of some women when pregnant can lead to their children to suffer from 'asram'. Meanwhile, 21.82% of the respondents were of the view that biological and environmental conditions could cause 'asram' and 18.

The survey finding is consistent with Labrique et al (2012) study in Ethiopia in which most of the causes of neonatal ailments and death as perceived by lay people were supernatural causes. In addition, the views about the supernatural causes as found in this study are comparable to those identified by Murdock (1980). According to him, the belief in sorcery and witchcraft can result in sickness. Also, to compare with the study finding is the instances

where death is induced by fright or fear when men were condemned or threatened to die by a so-called medicine- man (Canon, 1942). Yes, the majority of the respondents share the belief of 'asram' as being spiritual whiles others belief it is natural (biomedical causation), but in the midst of the two perceptions, there is another group that believe in both the spiritual and natural causation of 'asram'.

Both (Biomedical and Spiritual)

In addition to these two groups of respondents with their different perceptions toward the ailment, other respondents perceived 'asram' to be both spiritual and medical. As a result, these people normally visit the hospital for ANC as well as the herbalist for some herbal concoction for spiritual protection of their baby. An extract from a herbalist interviewed, Okomfo Anto, sums this up:

> *... Most pregnant women who come to me for herbs- 'apenfoduro' (for the pregnant mothers) and 'asranaduro' (for the fetus) during pregnancy also go to the hospital at Dodowa or our own clinic here for ANC visit (Plural medical behavior is also very common here)*

Another respondent added his opinion about it:

... Listen, my sister; all this 'asram' 'asram' is ***ATRIDEE/ FEVER/MALARIA (emphasis mine).*** *So without any form of medication you can get it. There are some that are spiritual and not for hospital, and others which are not spiritual and can be treated at the hospital.*

6.5 PREVALENCE OF 'ASRAM'

One of the objectives of the study was to ascertain the prevalence of 'asram' in Adamorobe. In addition to these categorizations, the researcher also found out which of these categories was widespread. To examine which of these categories was most prevalent, the researcher used a multiple response question in the quantitative study in which respondents were asked to select as many types of 'asram' that they have experienced and know of. Table 15 displays the frequency and percentages of their responses to that question.

Table 16: Distribution of responses on the prevalence of the types of asram.

Type of Asram	Frequency (N)	Percentage (%)
'asram borodedwo'	107	45.5
'asram abosomakotre'	37	15.7
asram tipae'	22	9.4
'asram boforotu/ burodo'	19	8.1
asram antonanwotwe'	17	7.2
'asram sudindin/ akanyaa	12	5.1
asram nufosu'	0.0	0.0
'asram mpompo/ ntose'	21	8.9
Total	**235**	**100.0**

Researcher's Field work, 2018

From Table 15, out of the total responses (235) gathered, 107 respondents representing almost half (45.5%) have experienced 'asram borodedwo' (malnutrition), followed by 'asram abosomakotre' (jaundice) (15.7%), and 'asram tipae' (open fontanel) (9.4) respectively. However, 'asram nufosu' (engorged breast of the pregnant woman) was not selected at all. This implies that 'asram borodedwo' is the most prevalent type among the respondent with 'asram nufosu' being the least. 'Asram borodedwo' among all the listed categories is the

most prevalent due to the high rate of malnutrition which is a major cause of extreme weight loss among newborns and children in the community. On the other hand, 'asram nufosu' perhaps happen to be the least because the symptoms are on the mother not the newborn.

6.6 MANAGEMENT AND HEALTH- SEEKING BEHAVIOUR

Management is broadly in the phases of treatment and prevention of 'asram'. Mothers and other care- givers made their choices of healthcare based on the health care opportunities that was available to them per their calculations and cost which explains Coleman's argument of his rational choice theory (Coleman, 1988). Obviously, the study has shown different perceptions about 'asram', its causes and where respondents sought for treatment. Whiles some respondents were of the view that 'asram' disease is spiritual and sought for spiritual healing or herbal treatment form an herbalist; others were of the view that it is normal and has a medical explanation therefore visited the hospital for treatment. Others engage in plural medical behavior (Twumasi, 1979) resorting to both hospital and non- hospital treatment which could be explain as the opportunity or the means available to them for treatment (Coleman 1988). These different perceptions held by the respondents invariably influenced their health seeking behavior. For instance, a mother who beliefs that 'asram' is spiritual may not see the essence of taking her child who is suffering from 'asram' to the hospital; rather, the child would be taken to the herbalist for some herbal concoction. In the same vein, an expectant mother would rather go for 'apemfoduro' or 'asramduro' instead of going for ANC to protect the unborn baby.

Healthcare in sub- Saharan Africa is essentially pluralistic and structured around three main systems: biomedical care, traditional healers, and popular knowledge or self-care (van der Geest, 1997 and Nyamango, 2002). To provide an effective way to improve neonatal death, improved health seeking behaviors has been identified as very relevant (Darmstadt et al,

2005). However, Perinatol (2008) argued that vast difference existed between ideal health seeking behaviors and what actually exist in many places. In view of this, the study sought to ascertain, first, the various avenues respondent sought healthcare for 'asram' and second, which of these avenues was mostly accessed by respondents to cure ailment in their newborns. Adding to this, the researcher observed that the perceived cause of illness (asram) affected the health seeking behavior of the respondents and determine the treatment regimen used in curing a sick newborn. These observations are shared in the views of Mesko et al. (2003) and Syed et al. (2008) where they state that the perceived cause or type of an illness affect the health- seeking behavior of people especially mothers. The data collected shows that 'asram' is managed in four (4) different phases namely: hospitals, homes, traditional healers and prayer camps.

6.6.1 Hospital

During the study, the researcher followed up on case at the Shai Osu- Doku Government hospital about a newborn death where the mother explained it was a result of 'asram'.

Although 'asram' has been perceived as a spiritual illness, on the contrary, some respondents reported taking their babies to the hospital when they recognized their babies were sick and might be suffering from 'asram'. Rationally, these respondents acted in accordance with the WHO guidelines which admonishes mothers and caregivers' need to be able to identify a danger sign in the newborn and when they do, their first point of call for healthcare need to be the hospital for appropriate care for the newborn (WHO, 1996). The researcher observed that a number of the respondents who participated in the interview and visited the hospital for the treatment lost their babies. This absolutely, could be attributed to Goody's 4 As and some other socio- cultural determinants (Good). During the in-depth interview, this is how Ama Ataa sadly described the lost her baby when she took him to the hospital for the treatment:

> *When my son was suffering from asram, I took him to the hospital because I did not have trust for those herbalists. I was afraid they would mix some concoction for him. However, my child could not survive…. He died at the hospital.*

Madam Ayeyi whose husband would not permit her to take their child to a herbalist gave her version of how she also lost her three (3) months old baby boy:

> *…The hospital! Where else, my sister? My husband would not allow me to take her to any herbalist or even spiritual church. I begged him several times, but he was not ready to listen to my. Although the nurses tried their best, my child eventually lost his life some few weeks after he was admitted [weeping].*

6.7.2 Traditional Healers

In a WHO report, traditional medicines were widely used in treating or as a supplementary treatment for many illnesses and these treatments were done by traditional healers (WHO, 2002). Believed to be a spiritual ailment, 'asram', according to the respondents, must be tackled spiritually. Most of the respondents who were present for the FDG either took 'asram eduro' or 'apenfu eduro' to protect their unborn child during pregnancy. One of the respondents who visited a herbalist described vividly what she was asked to do when she visited the herbalist for the treatment of her child's asram:

> *My aunty is an herbalist, so I quickly went to her and she confirmed that my baby was suffering from asram. She directed me on what to do by asking me to get some items I will need for the treatment. I bought a dry dead chameleon, some herbs and blue - the one we use for washing – from the market. She also went for some herbs too from the bush and mixed them with the items I bought from the market. She then instructed me to use the concoction to bath my baby and give her some to drink for a month.*
>
> *I also bought 'chire' (white clay), eggs, 'odum', and 'siew' (ant hill). She mixed all these items and also smeared that on him for a month. We noticed changes in his weight exactly after the one month. So, it worked. My aunty did not charge me that much because we were related.*

Another respondent, Maa Fausti, also painted a picture of what a herbalist did to heal her child:

> *…from a herbalist down here in Adamorobe. I went three times in a month and sometimes he schedules the date and day of meeting. I did this alongside my antenatal visits but that was not very frequent.*

6.7.3 Prayer Camps

While others visited the herbalist for treatment, others preferred to seek treatment from the church. Kweibea once again shared how a prophet identified her baby's excessive loss of weight as 'asram' and showed her what to do after several prayers for her child to be healed.

> *I went for prayers at a prayer camp [name withheld] and a prophesy came came that it was my mother- in- law who was behind all this. The prophet claimed my child has a great future and my mother-in-law wanted to temper with that because she was not in support of the marriage. Apparently, this woman is married to her son in the spiritual world and warned the respondent (the mother) to stay away. As a result of being disobedient, my mother- in- law cast the asram on the baby at birth. The prophet took my babies and I through some sessions of prayers and later gave me some things to do, which I did; today, my child has been healed from the sickness [happy].*

With the help of the quantitative study, the researcher was able to find out which of these avenues was mostly patronized by respondents. In other words, the researcher employed the survey to establish which of these places identified in the qualitative study was frequently visited for the treatment of 'asram'. Again, a multiple response question was employed in which respondents in the survey were asked to select the places they went for health care for the treatment of their sick babies (babies with 'asram'). Table 5 displays the frequency and percentages for the various places' respondent visited when their babies were suffering from 'asram'.

Table 17: Distribution of responses on places visited for 'asram' treatment

Place visited	Frequency (N)	Percentage (%)
Hospital	65	34.8
Traditional Healer	59	31.6
Home	43	23.0
prayer camp	5	2.6
Other	15	8
Total	**187**	**100.0**
Source: Researcher's Field work, 2018		

Interestingly, although 'asram' is believed to be spiritually caused, respondent mostly visited the hospital for treatment. From Table 5, 65 respondents out of the 172 who participated in the survey took their babies to the hospital for treatment representing 37.8%. Meanwhile the traditional healers and prayer camps represented 34.3% and 2.9% respectively with the latter being the least place respondents went for treatment. These quantitative findings were inconsistent with previous studies in which 'asram' was viewed with a common belief that it should be treated using herbs outside the hospital (Okyere et. al, 2008). In addition, the quantitative results were contrary to the qualitative study where most participants in the interviews considered 'asram' not to be a hospital sickness. And again, did not support the findings in the WHO (2013) fact sheets revealed traditional medicines remains the primary form healthcare for more than 80% of African populations.

However, the findings of the two studies confirm Twumasi's (1979) assertion of the existence of medical pluralism in Ghana. According to him, there exist two medical systems in Ghana (traditional healing and scientific medicine), which have existed side by side for very long time.

6.8 Asram in Focus

The myth factor is a major contributing element to neonatal mortality (Tariq, 2012). Typically, is the notion and classification of a collection of newborn illnesses or any physical impairment of the newborn as 'asram'. A number of studies have come out with various definitions to this neonatal phenomenon. For instance, Abrah (2013) found out from her study of neonatal mortality among the Osiem of Eastern Region of Ghana that 'asram' is a blanket term used to describe a collection of neonatal illness which results in neonatal mortality as a 'non-hospital' sickness and therefore regarded as a natural occurring phenomenon.

According to Hill et al. (2003), asram is attributed to a situation where the stomach or breast of a pregnant woman is seen by a person possessing a bad eye. By this, the said person does not have clean intentions for the expectant mother. Bazzano et al. (2008) also found 'asram' as the most commonly mentioned newborn illness their study. They defined 'asram' as the main serious illness which affects newborns and known to be transmitted to the baby in the utero by other people intentionally (because of jealousy or antipathy) or unintentionally. Additionally, in a study conducted in Techiman and Kintampo North and South, 'asram' was perceived as a severe and common illness with human attributes (Okyere et al., 2010). Among these studies (ibid), 'asram' is generally known, believed, and perceived to be spiritually caused.

Various descriptions of 'asram' and its types were provided in these studies (Hill et al.; 2003; Bazzano et al., 2008; Okyere et al., 2010; and Abrah, 2013). The descriptions given across board includes newborn with big head, line in head, green- black veins on the forehead, tiny body, clenched fingers with eyes wide open, difficulty in breathing, pale skin, open fontanels, head divided into two or four parts by depression on the skull, constipation, boils, stretched out and arched backwards, small multiple swellings on skin, wrinkled skin, and difficulty

breastfeeding among the descriptions. As such, the types deduced from these descriptions included; asram pipi, asram puni, asram tiyade, asram kayeripe, asram borededwo, asram mpompo, asram anidani, asram weedom and asram suro with many other types. However, other traditional neonatal conditions were described as; Ananosono, a condition of asram suspected to result from breastfeeding dirty milk to a neonate or feeding maize – based foods to newborns. The neonate has watery, smelly stools with vomiting and mucus. Esoro, a condition associated with convulsion, involves the shadow of a spirit bird flying over a neonate. A child experiencing esoro has hot body, 'shocks' or sudden jerks/jolts, eyes roll black and stiff body not responding to touch. Asram is also when a child has phlegm or dirt in their body. Abunu is also a disease condition with symptoms of hot body, yellow urine, pale eyes and palms and body pains. Sumpraso is a description for pale hair and palms, drooping eyelids, puffy feet and stomach. Enfire yare involves a neonate experiencing hot body temperature, fast breathing, cough and pain at ribs. Asabra is related to frequent, red/green foamy stools.

These strands of disease condition collectively called 'asram' are believed to arise from naturalistic and personalistic causes. Thus, they are not classified as diseases that should be treated with modern or allopathic medicine; they are commonly treated and managed by the use of herbs.

Aside 'asram', another traditional or local condition and myth that contribute to neonatal mortality is the belief in 'the spirit child' among the Kasena Nankana (Allotey and Reidpath, 2001). Ben Okri (1991) cited in Allotey and Reidpath (2001) in his book; "The Famished Road" brings to bear the notion and the belief of 'the spirit child' to the world and admits that the description of the 'spirit child' was not universal, and the phenomenon could be conceived differently in other cultures. In other parts of Ghana for example, the 'spirit child'

is also believed to be a series of stillbirths and it is the same child returning (Manonkian, 1951 cited in Allotey and Reidpath, 2001).

These myths surrounding neonatal mortality cut across not only cultures but also regions and countries. For example, some of the descriptions of 'asram' like open fontanel, green faeces, red boils, convulsion, swollen head or body in Ghana are similar to the descriptions given to newborn conditions in Gabon and Benin by mothers (Hyder et al., 2003; Towns et al., 2014). They are also locally referred to as 'ka', 'atita', 'la rate', 'ébem', and 'abobane'. Again, Twins as they are hailed and seen as a blessing in some communities in Ghana, are described as spirit children and perceived as evil and bad omen for the family they are born into thus, killed at birth in some communities in Nigeria (Senah, 1993). Yet another, (Senah, 1993) in some parts of Sudan, twins are described as spirit children and believed to be birds that are left in baskets on treetops to assist their flight. In unfortunate cases, infants with congenital physical deformities perceived to possess evil spirits are abandoned to die, deprived from food, or physically killed by some communities (Yoder, 1982 cited in Allotey and Reidpath, 2001).

Furthermore, early closure of the fontanel due to hot fermentation was a common practice among Benin and Gabon mothers. According to these mothers, early closure of the fontanel encourages babies to walk early and their greatest joy is to see their babies walk early. Another practice common among them is to bath their newborns and young children with herbs which is believed to strengthen the newborns and the young children (Town et al., 2014).

Rationally, these beliefs and practices as well as myths surrounding child birth may have some sense of truth in them but may not be appropriate especially when dealing with newborns who are very fragile and may contract diseases and infections easily as a result causing harm to their lives and impeding their survival.

CHAPTER SEVEN

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

7.1 Introduction

"An adult, is a child who has survived!" It is therefore of a great necessity and priority for every country to ensure the survival of every newborn. In Ghana, progress on reducing child mortality has not been sufficient. Although there has been a reduction in both infant and under- five mortality rates, neonatal mortality has still been on the rise over the years. Neonatal death has thus become an important component of under- five deaths accounting for as high as 40% of under- five mortality in Ghana recorded by the Ghana Statistical Service (2011).

There has therefore been a growing global interest in the area of newborn health, where a large number of evidenced- based researches, strategies and action plans have been developed and implemented by several health bodies and organizations such as MOH, GHS, WHO, Save the Children (Saving Newborn Lives), USAIAD- BASICS, and UNICEF to address the problem of high under- five mortality especially neonatal deaths. It is under this context that this study was carried out to ensure an improvement in neonatal health and survival especially in the rural communities of Ghana.

'Asram' is a syndrome of health conditions which may include hydrocephalous, jaundice, anaemia, malnutrition and poor latching of the newborn as well as breast engorgement of a pregnant woman, popularly known among the Akan- speaking communities in Ghana. However, 'asram' as a health phenomenon is perceived differently among different people even within the same community. A common issue affecting neonatal health in the rural communities is the classification of most newborn illnesses, especially resulting in failure to thrive as 'asram' in the Akan communities and many parts of Ghana which in some way

influences the health seeking behavior of mothers and other care givers in managing cases of newborn ill- health. This study generally sought to explore the knowledge, beliefs and perceptions on 'asram' and how it is managed among mothers and other caregivers in Adamorobe in the Akwapim South District of the Eastern Region of Ghana. Ultimately, this thesis is intended to contribute to the discourse on neonatal and child health in Ghana, and provide the MOH, GHS, WHO, UNICEF, and other stakeholders in child health adequate information on 'asram' as a local illness contributing to the high rates of neonatal mortality in the rural communities of Ghana.

The study was conducted among residents of Adamorobe, a village in the Akwapim South District of the Eastern Region of Ghana. In-depth interviews, Focus Group Discussion and participant observation were used to explore the knowledge, beliefs and perceptions of purposively selected twenty (20) mothers and other caregivers on 'asram' for the qualitative study. Sixteen (16) Key Informant interviews were also conducted for health practitioners (midwives and nurses), traditional healers and traditional birth attendants. A quantitative data was further collected in a cross-sectional survey of 282 randomly selected respondents. The study lasted for 12 months, however, field work covered about 4 months.

Specifically, the study aimed to achieve the following objectives.

1. To ascertain what mothers and other caregivers refer to as 'asram'.
2. To identify the local indicators and types of 'asram'.
3. To explore mothers and other caregivers' beliefs and perceptions on the cause of 'asram'.
4. To explore local treatment regimens and prevention methods used by mothers and other caregivers.

5. To interrogate the healthcare seeking behavior of mothers and other caregivers in the study community.

7.2 Major Findings

The major findings of the merged data are as follow:

Ascertaining newborn health conditions mothers and caregivers refer to as 'asram'

In Adamorobe 'asram' was a widespread phenomenon not only among the Akans but also known among other ethnic groups residing in the community. Mothers and other residents of Adamorobe referred to and described 'asram' in eight (8) different ways similar to what other researchers (Hill et al., 2003; Bazzano et al., 2008; Okyere et al., 2010; and Howe et al., 2011) derived from their respondents in their studies which were (a) green veins on forehead, (b) open fontanel, (c) malnutrition resulting in extreme weight loss, (d) jaundice/ anaemia (changes in skin color), (e) poor latching on nipple, (f) boils, (g) inconsolable loud cries and (h) engorgement of breast which mostly affect the mother during pregnancy. Moreover, similar in these studies, 'asram' was labelled as an 'evil' illness based on its association with the person thought to cause it. This person, according to the respondents is a witch who possesses the 'asram' charm in the eyes and cast it on a pregnant woman and her unborn baby either in the womb, at delivery, or at birth when the newborn is brought home. Again, 'asram' was translated by many of the respondents as a "non- hospital" illness affecting newborn infants caused by bad people, 'nnipa abonifo" out of spite and greed. This resonates with literature from Azande where witches were described as people, male or female who are believed to possess inherent supernatural powers which they use knowingly or unknowingly to harm others or to benefit themselves (Evans- Pritchard, 1937). Evans- Pritchard further emphasized that, witchcraft accusations are motivated by jealousy, hatred, envy, as well as fear whereas residents of Adamorobe described that as a result of greed. This traditional way

of classifying illness and associating it to witchcraft is very common in Ghana and in Africa as classified in a number of researches on witchcraft, for example; "The Witchcraft Scene in Ghana by Assimeng (1997) and "Witchcraft in Ghana" which focuses on the belief in destructive witches and its effect on the Akan tribes (Debrunner, 1959).

Identifying local indicators and types of 'asram'

This objective sought to identify the various indicators and types of 'asram' common among residents in the study community. Based on the descriptions given in the objective one, the various types and indicators were identified. Among the types shared by the respondents were; 'asram boreded wo'- this make the newborn very dry, thin and skinny recognized to be the most dangerous among all the types and killed the newborns easily within few days. The second type identified was 'asram abosomakotre' referring a chameleon which makes the newborn change into different colors just as the chameleon, 'asram tipae' which is the line in head or open fontanel, 'asram antonnanwotwe' also referred to early neonatal death within the first week of birth, 'asram mpompo'- boils, 'asram nofosu'- discharge from engorged breast of the pregnant woman during pregnancy, 'asram boforotu/ borodo referring to hydrocephalous and lastly, 'asram ntose'- little watery swells on the skin of babies. Some of the types identified in this study were similar to those in the literature while some were not or bared a different name. Other types mention by Bazzano et al (2008) and Okyere et al (2010) that were not mentioned in this study were; 'asram puni'- malaria, 'asram pipi'- difficulty breathing, 'asram suro'- convulsion, and 'asram tiyade'- fever among other types. It was identified that among the Akan, there were different pronunciations for the illness, the Asante called it 'asram' while the Akwapim's called it 'asran' but with the same meaning and traditional belief attached to it. Moreover, 'asram' is not the only traditional or locally coined phenomenon for a collection of newborn illnesses as identified in the literature. There is also folk illness that is 'Ka', 'Atita' and 'La rate' in Benin and Gabon (Town et al., 2014) and the

'spirit child' locally known as 'Chichuru' or 'Kinkiriko' referring to twins among the Kasena- Nankana of Ghana (Allotey and Reidpath, 2001), which is known in some part of Nigeria and part Sudan (Senah, 1993).

Exploring beliefs and perceptions associated to the cause of 'asram' among mothers and other caregivers

One major key finding was the beliefs and perceptions attached to the causes of 'asram' by mothers and other residents in the community. The study found a wide range of beliefs and perceptions regarding the cause of 'asram'. For mothers and other residents of Adamorobe, illness was traced in a broader moral framework. The beliefs and perceptions based on the findings was categorized into two (2) main theories, thus, spiritual (supernatural) as against natural (biomedical) causations. These theories identified is in harmony with the illness causation theories of Murdock (1980) which is one of the main theory underpinning this study. Murdock (1980) attributed the causes of illness to natural and supernatural causations. He referred to natural causation as any theory which accounts for the impairment of health consistent with western biomedicine or a manner reasonable to medical science like stress, accident, organic deterioration, and overt human aggression. This differ somehow with the explanation of the natural causation in this study which emphasized on sanitation, attitude and physical appearance and other health- threatening lifestyles of pregnant women and nursing mothers. However, the supernatural causations correlated to that of the findings in this study relating it to supernatural spirit- witchcraft, magic and sorcery. After the respondents narrating to the researcher the various ways that 'asram' manifest itself in a newborn or a pregnant woman, the respondent connected the illness to the types of people believed to have caused them. Although the respondents did not know how these 'wicked' people could have caused the 'asram', majority of them believed and mentioned it was done through some extra- human power beyond the physical. The respondents usually would say it

is ‘honhomfi’, that is, a spirit that gives the perceived ‘evil’ people that ability. Irrespective of this popular belief and perception shared by majority of the respondents as ‘asram’ being spiritual, there were other groups that believed it to be natural which was be based on scientific or biomedical conclusions. Factors like; the environment (sanitation issues), attitude and physical appearance of mothers, and other lifestyles pregnant women and nursing mothers engage in were considered to be natural ways to attract an illness. Another group was identified who believed and perceived ‘asram’ as having both spiritual and natural (biomedical) causations which was not found in Murdock’s theory.

Exploring local treatment regimens and prevention methods

Given their reasoning as ‘asram’ being an ‘evil’ illness which is spiritually caused by a ‘witch’ or ‘an evil’ person, their behavioral conclusions were clear. The respondents’ choice of treatment and prevention was based on the options available to them, which per their calculations chose herbal medicine and treatment over orthodox or allopathic medicine and treatment. This confirms Coleman’s rational choice theory, the second theory underpinning this study and his argument made explaining the rationale behind the choice’s individuals make in life (Coleman, 1988). Most of the respondents used herbs to treat newborns with ‘asram’ and to prevent further occurrence which the orthodox health practitioners frowned upon.

Although noted in other studies that effective primary health care requires that all health care providers and policy makers should take culture and traditional practices into account in providing adequate healthcare systems and interventions in communities (Sander et al., 2015), traditional healers and traditional birth attendants (TBAs) in Adamorobe shared their total exclusion from health interventions in the community and how they have been sidelined

by the orthodox health practitioners from the macro (national by MOH and GHS) through to the micro (community) levels.

Healthcare seeking behavior of mothers and other caregivers in Adamorobe

The perceived cause of 'asram' as mainly spiritual affected the care seeking behavior of mothers and residents in the study community. 'Asram' was believed to be a "not- for-hospital" illness, hence, most of the respondents' first point of seeking care was to visit a traditional healer or a church, before the hospital. This is similarly shared in the works of Hill et al. (2001), Bazzano et al. (2008), Okyere et al. (2010) where 'asram' was believed to be not for hospital illness among the study respondents. Again, in Tanzania in Zanzibar, for example, there is a class of newborn illness called 'grandfather's fevers' which are also perceived not to be responsive to hospital medicine and are treated at home with herbs (Thairu et al., 2008). Mothers and residents of Adamorobe strongly believe in the spiritual causation of 'asram' (evil eyes- ewo aniwam) and as such resort to traditional or local forms of treatment either at home or with Herbalist. This is in harmony with Senah (1997) as he identifies church-based healers, indigenous medical practices and biomedicine operating side by side in the rural town of Bortianor.

Beside these stated objectives, there were other findings which are relevant to this study.

One critical observation made was that, 'asram' was malaria- related. It was observed that, most of these herbalists also served as traditional birth attendants (TBAs) in the community whom most women preferred to visit during pregnancy for 'apenfoduro' (medicine for pregnancy for the mothers) and 'asram nnuro' (medicine for newborn diseases). This in effect accounted to the prevalence of home deliveries in the community as reported by the Midwife and Community Health Nurses at the CHPS compound in the community. Some mothers and residents complained of financial constraints which prevented them visiting the CHPS compound or the hospital for delivery and care. Attitude of the orthodox health personnel was

also noted as one of the major factors that restrained mothers and other residents from seeking health care in the hospital for their sick or ill newborns and further shared that herbal or traditional medicines were more effective and cost- effective compared to allopathic or orthodox medicines. Although a number of health facilities were easily located and accessible, such as the Dodowa Hospital, Damfa Hospital, St. Theresa's Catholic Hospital, Valley View Hospital, mothers and residents of the study community had confidence in and preferred the traditional healers and traditional birth attendants than in the medical doctors and the other health personnel in the hospitals due to some previous encounters and experiences. Bishaw (1990) in his study on attitudes of modern and traditional medical practitioners towards cooperation posited that, over one- third of the population in developing countries lack access to biomedical healthcare services which often leads to their reliance on traditional medicines or home care. The situation of the residents of Adamorobe in the Akwapim South District is contrary and different form Bishaw's (1990) findings, as the study findings reveals that residents of Adamorobe had access to biomedical care centers at least a Community-based Health Planning and Services (CHPS) compound with a Midwife and two Community Health Nurses, yet patronized traditional medicines and home remedies in managing and curing their newborns with ill- health.

7.3 Conclusion

To reduce neonatal morbidities and mortalities either biomedically or traditionally, related needs a holistic approach and intervention with orthodox/ allopathic practitioners and treatment, traditional healers and medicines and home remedies and care all inclusive. Traditional birth attendants (TBAs) and traditional healers need to be integrated into general healthcare strategies by the Ministry of Health, Ghana Health Service, and other NGOs in coming up with a successful integrated primary health strategies and policies for supporting patients' needs and improving and ensuring quality essential care for every newborn for their

survival. These factors when well-integrated and implemented will help Ghana reach its target of ending preventable deaths of newborns and children under- five years of age by 2030, aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under- five mortality to as low as 25 per 1,000 live births to attain the Sustainable Development Goal 3.

This study has obviously contributed to literature, and in future, it will be desirable for somebody to pick up from the recommendations to do a national study on 'asram' specifically, and child health care in general in Ghana and beyond.

7.4 Recommendations

As the campaign on ending preventable deaths of newborns and children under- five years of age by 2030 is ongoing, with the aim of reducing neonatal mortality to at least as low as 12 per 1000 live births and under- five mortality at 25 per 1,000 live births, it remains vital for governments and concerned health institutions to always make informed decisions to reach this target. Polices on neonatal and child health issues must therefore be based on empirical evidence and not assumptions. To reduce neonatal mortality rate and ensure neonatal survival, the researcher as well as the respondents inferring from the findings of the study made the following recommendations:

- 'Asram' in the findings is malaria- related, therefore innovative strategies towards the control of malaria in Ghana and Africa requires a better appreciation of local malaria-related illnesses in terms of treatment and other control measures that may be useful for a holistic initiative and implementation.
- For home management of 'asram' and other newborn illnesses to be effective, national health bodies like the MOH, GHS, UNICEF, UNDP among other health organizations need to acknowledge and respond to the impact of culture, community

concepts, beliefs, and perceptions and not only relying on allopathic or orthodox treatment.

- To improve neonatal survival, definition of health systems must include the traditional healthcare systems. This definition should include the patterns of belief and perceptions attributed to the cause of illness, norms and moral values governing choice and treatment of an illness.
- There is also the need for an initiative to promote the role of traditional birth attendants and traditional health practitioners and medicine in health systems by providing them with the necessary trainings and license to adequately operate in the health system since majority of Ghanaians alternatively prefer that to the allopathic care and medicines.
- A qualitative research needs to be conducted to know the perceptions of biomedical practitioners on 'asram'. Do biomedical practitioners share similar beliefs to that of the patient or not?
- Future researchers interested in child healthcare need to identify which children's illnesses do Ghanaian mothers and other care givers seek treatment from biomedical care and which ones do they prefer to be treated by traditional healers and herbs.
- Client care training for staff in government hospitals must be taken seriously to encourage citizens to visit the health facilities. This will greatly decrease self- care practices and home deliveries among citizens especially in the rural communities.

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APPENDIX ONE

Interview guide with mothers and other members of the family

Introduction: Good morning, I am a student of the Sociology Department, reading sociology at the University of Ghana, Legon, I am interested in the health of children especially, newborns and will be asking questions on how your family perceives newborn health and which newborn health conditions are perceived to be problematic and how your family manage such health conditions. I am also here to have a conversation with you on your knowledge and perception about 'asram', (a collection of newborn health conditions), what the causes are, how you are able to identify these conditions, where you seek healthcare for your newborns with 'asram', and lastly, how you manage your sick newborns with "asram".

Question to begin: To start with, I would want you to tell me some basic information about you, that is; your age, educational level, marital status, ethnicity, religion, and employment status. Secondly, I would want to know about the last time you got pregnant, the place of delivery, and the details of your delivery. You will also narrate to me the outcome of delivery or birth (whether you had the baby or for some unfortunate reasons you lost the baby) … what was the cause of death (*if you lost it*)? If you can give me all these details, then we are going to begin by ……...

1.Socio- demographic characteristics of mother/ caregiver

Can you please give me your ……?

- Age
- Educational level
- Marital status
- Ethnicity
- Religion
- Employment status

2.Pregnancy and details of delivery[1]

Can you tell me the last time you got pregnant? (It is important to specify that the time of pregnancy should be within the past 2 (two) years) till date) …. Place of delivery? …… And outcome of the delivery?

- Where did you visit during the time of pregnancy?
- If the hospital, were you attending antenatal? Did you attend antenatal throughout the period, or for some period and stopped at a time? Were you given counselling on what to do at each stage (antenatal, delivery, and postnatal)? Were you given any form of medication during this period? Which types of medicines were you given? You can mention a few

- If not the hospital, where did you visit during pregnancy? Specify ……? Were you given any counselling on what to do at each stage of the pregnancy till birth? Were you given any form of medication? Which types of medicines were you given?[1]
- Can you explain to me why this choice? (whether hospital, traditional healers, or otherwise)
- If you delivered at home, who assisted you during delivery?

3.Birth Outcomes

Not to remind you of your past or pain if other wise, may I know what the outcome of birth was after delivery?

- Did you have a safe delivery?
- Did the newborn/ baby come out alive or dead?
- If dead, what time and when did it happen? Was it same day, within a week, or a month?
- Was the newborn/ baby sick/ ill?
- What do you believe is the cause of death? Explain …….

4.Newborns' illness and health perceptions

Now not so specific, but in general what are the illnesses that usually affect newborns in your family? Especially from the time of birth to the first month of birth (0- 28days). How do you manage these illnesses?

- What according to you are the types of illnesses that affect newborns/ babies? Mention them…….
- How do these illnesses manifest, or how are you able to identify these illnesses?
- What do you believe are the causes of these illnesses? Are they recurrent? (ask for each illness mentioned previously)
- Do you know of 'asram'? What is it? What are the indicators?
- Do you have or know a newborn/ baby who has suffered from 'asram' before or is suffering from 'asram'? What do you do you believe caused this? How did you/ do you manage and prevent it? Where did you/ do you seek for care? Why this choice?
- What are the practices or the behavior which are adopted within the family to prevent 'asram'? Why? Who advised you?
- What practices and behaviors are adopted generally in the family when a member of the family is confronted with an illness or any health problem?
- What are your perceptions about 'asram'? Which type of illnesses do you refer to as 'asram'?

5.Health- seeking behavior and Health belief

[1] Question 2, pregnancy and details of delivery would only be applicable to mothers of the families. All other questions remain the same for all, that is, mothers, caregivers, and other members of the family.

In the course of the conversation, you told me where the baby was delivered, and where you seek for health when the baby or any member of the family is confronted with an illness (hospital, clinic, CHPS compound, Traditional healers, and the others).

- What in your opinion do you think of these ways of care? What are your perceptions comparing each to the other?
- What is your belief in each of the care and care centers you have mentioned?
- Which one do you often use, and which one do you rarely use? Explain.

We have come to the end of the interview….. Do you have any more information to add to what has been said? If not… Thank you very much for your time.

APPENDIX TWO

QUESTIONNAIRE

UNIVERSITY OF GHANA

DEPARMENT OF SOCIOLOGY

QUESTIONNAIRE FOR DATA COLLECTION

INTRODUCTION

My name is Adwoa Achiaa Sarpong, an MPhil candidate with the Department of Sociology, at the University of Ghana. I am conducting a study titled "Newborn Survival in Ghana: Management of 'Asram' among Families in Adamorobe in the Akwapem South District**".** I hereby invite you to participate in the first phase of this study. Any information you provide will be treated confidential and cannot be traced to you. The information you provide will be used purely for academic purposes. The data obtained from this study will be password protected and will not be made available to any second and/or third parties. If by any reason, you do not want to continue answering any of the questions you can choose to discontinue your participation in the study. Thank you very much for giving me your attention.

SECTION A: SOCIO- DEMOGRAPHIC CHARACTERISTICS

1. Sex of respondent? ***(Kindly write the number which applies in the box provided)***

Male [1]
Female [2]

2. What is your age? ……. ***(In years)***

3. Marital Status? ***(Kindly write the number which applies in the box provided)***

Single [1]
Married [2]
Divorced [3]
Widowed [4]

4. Level of Education? ***(Kindly write the number which applies in the box provided)***

None [1]
Primary/ JSS/JHS [2]
SSS/ SHS [3]
Vocational/ Technical [4]
Tertiary [5]
Non- Formal [6]
Other (Specify) [7]

5. Ethnicity? ***(Kindly write the number which applies in the box provided)***
Akan [1]
Bono [2]
Ewe [3]
Ga/ Adangbe [4]
Hausa [6]
Nzema/ Ahanta [7]
Foreigner [8]
Other (Specify) [9]

6. Religion? ***(Kindly write the number which applies in the box provided)***
Christian [1]
Muslim [2]
Traditional [3]
Other (Specify) [4]

7. Occupation? ***(Kindly write the number which applies in the box provided)***
Unemployed [1]
House wife [2]
Farmer [3]
Trader [4]
Civil Servant [5]
Public Servant [6]
Other (Specify) [7]

8. Is there any Health facility in this community? Yes ☐ No ☐

9. If yes to Q. 8, which type of Health facility do you have in the community? ***(Kindly write the number which applies in the box provided)***
Government [1]
CHAG [2]
Quaisy [3]
CHPS Compound [4]
Herbal/ Traditional [5]

SECTION B: PREGNANCY AND DETAILS OF DELIVERY

10. When was your last pregnancy? *(In days, months, years)* …….

11. Where did you go for treatment during the time of pregnancy? ***(Kindly circle the number (s) which applies)***

Government Hospital [1]
CHAG [2]
Quaisy [3]
CHPS Compound [4]
Herbal/ Traditional [5]
None [6]

12. Why this choice (s)? *Specify* ……..

13. If the choice was between options 1- 4, were you attending antenatal (AnC)?
Yes ☐ No ☐

14. If yes, how often were you attending AnC? ***(Kindly write the number which applies in the box provided)***
Very often [1] ☐
Often [2]
Quite Often [3]
Not at all [4]

15. Where did you go at the time of delivery? ***(Kindly write the number which applies in the box provided)***
Government Hospital [1]
CHAG [2]
Quaisy [3]
CHPS Compound [4]
Herbal/ Traditional [5]
Home [6]
None [7]

16. Were you given any form of counselling around the period of birth (antenatal, delivery, postnatal)? Yes ☐ No ☐

17. If yes to Q. 16, what form of counselling were you given? *Specify* ……

18. At which stage did you receive the counselling? ***(Kindly circle the number which applies)***
Antenatal [1]
Delivery [2]
Postnatal [3]

19. Who did the counselling? *Mention* ……..

20. If you delivered at home, who assisted in the delivery? *Specify* ……

SECTION C: BIRTH OUTCOMES

Not to remind you of your past or pain if other wise, may I know what the outcome of birth was after delivery?

21. Did you have a safe delivery without any complications? Yes ☐ No ☐

22. If no, did it result in a death? Yes ☐ No ☐

23. Have you experience a newborn death before? Yes ☐ No ☐

24. If yes, what time and when did it happened? ***(Kindly write the number which applies in the box provided)***

Same day [1] ☐

Within a week [2]

In a month [3]

25. What do you believe was the cause of death? ……

SECTION D: PERSPECTIVES/ PERCEIVED CAUSES OF ASRAM

26. Do you know of 'asram'? Yes ☐ No ☐

27. What are the indicators? *Explain*

……

28. What are the types? *Mention any that you know off*……

29. What are the causes? *Mention them*

……

SECTION E: TREATMENT MEASURES

30. Where did you receive treatment?

Hospital [1]

Home [2]

Traditional Healer [3]

None [4]

31. Why this choice?

32. How long did it take your baby to be treated?

Very long [1]

Quite Long [2]

Long [3]

Not long [4]

33. What was the outcome of the treatment? *Specify*

……

SECTION F: PREVENTION/ COPYING MECHANISM

34. How did you cope with your newborn with 'asram'? *Explain*

……

35. What measures did you take to prevent further cases?

……

36. In your view, how prevalent is 'asram' in this community?

Very prevalent [1]

Quite prevalent [2]

Prevalent [3]

Not prevalent [4]

None [5]

SECTION G: HEALTH- SEEKING BEHAVIOR AND HEALTH BELIEF

37. In your view, where do you think is most families in this community seek for health for their newborns with 'asram' and sick newborns in general?

38. Why?

……

39. What are your beliefs in 'asram'?

……

APPENDIX THREE

UNIVERSITY OF GHANA
ETHICS COMMITTEE FOR THE HUMANITIES (ECH)
P. O. Box LG 74, Legon, Accra, Ghana

My Ref. No.....

21st February, 2018

Ms. Adwoa Achlaa Sarpong
Department of Sociology
University of Ghana
Legon

Dear Ms. Sarpong,

ECH 098/17-18: NEWBORN SURVIVAL IN GHANA: MANAGEMENT OF "ASRAM" AMONG FAMILIES AND HEALTH PROVIDERS IN ADAMOROBE IN THE AKWAPIM SOUTH DISTRICT

This is to advise you that the above reference study has been presented to the Ethics Committee for the Humanities for a full board review and the following actions taken subject to the conditions and explanation provided below:

Expiry Date:	20/08/18
On Agenda for:	Initial Submission
Date of Submission:	15/01/18
ECH Action:	Approved
Reporting:	Quarterly

UG./ISSER/ECH VALID UNTIL 20 AUG 2018 APPROVED DOCUMENT

Please accept my congratulations.

Yours Sincerely,

Rev. Prof. J. O. Y. Mante
ECH Chair

CC: Prof. M. P. K. Okyerefo, Department of Sociology, University of Ghana.

Tel: 233-303933866 Email. ech@ug.edu.gh ech@isser.edu.gh