

**SCHOOL OF PUBLIC HEALTH
COLLEGE OF HEALTH SCIENCES
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**HEALTH-SEEKING BEHAVIOURS OF MOTHERS OF BABIES WITH
NEONATAL JAUNDICE IN THE WINNEBA COMMUNITY**

BY

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DECLARATION

I, Adolph Eli Garfo, declare that with the exception of references that have been cited in the work, this dissertation, which has been supervised according to the guidelines laid down by the University of Ghana, Legon is the result of my personal effort.

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.....

Date

DEDICATION

This work is dedicated to the Almighty God for His grace and guidance throughout my life and also to my family especially my deceased father who was a solid rock in my academic journey.

ACKNOWLEDGEMENT

I thank the Almighty God for His mercies and favour over my life.

Special thank you to my family especially my late father who has been a strong pillar in my life and my grandfather who has always been supportive.

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ABSTRACT

Introduction: Hyperbilirubinemia is a common neonatal condition and in most instances, a benign problem in infants. It occurs in close to 60 percent of all term babies worldwide. In Ghana, neonatal jaundice was found to be part of the top five causes of neonatal mortality. In the Trauma and Specialist Hospital, Winneba, it was the sixth most common cause of admission and the seventh most common cause of death in 2016 and 2017 respectively.

Methods: This qualitative case study assesses the health-seeking behaviours of mothers with babies diagnosed of neonatal jaundice in the Winneba community. A purposive sampling technique was used to select 24 mothers of neonatal jaundiced babies admitted at the Trauma and Specialist Hospital, Winneba. Data was collected through in-depth interviews from selected participants using an interview guide and analysed thematically guided by NVivo Qualitative Analysis Software version 12.

Results: The study revealed that health seeking behaviour pathway of mothers were affected by their perception of the severity of the illnesses, their knowledge of the condition and the perception of the appropriate source of care. The hospital was the main care source to treat neonatal jaundice. Hospital choice depended on the supportive roles of their husbands. The financial disposition of the family dictated the choice of care and support from neighbours and relatives for household chores helped participants to seek for medical assistance. Delays in taking the babies to the hospital was due to poor knowledge of mothers on symptoms of neonatal jaundice.

Conclusion: Implications are that delays in seeking health care for neonatal jaundice can be curtailed with policy reforms and adequate public education. This will reduce the mortality rate and burden of complications associated with neonatal jaundice.

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LIST OF ABBREVIATION

ABO	Blood Group A, B, O and AB
ANC	Antenatal Clinic
AWHONN	Association of Women's Health, Obstetrics and Neonatal Nurses
CHPS	Community-Based Health Planning and Services
EBT	Exchange Blood Transfusion
G6PD	Glucose-6-Phosphate Dehydrogenase
GDHS	Ghana Demographic and Health Survey
GHS	Ghana Health Service
GSS	Ghana Statistical Service
GTC	Glucuronyl Transferase Catalyses
HBM	Health Belief Model
HERFON	Health Reform Foundation of Nigeria
HIV/AIDS	Human Immune Virus/Acquired Deficiency Syndrome
MBNJ	Mothers of Babies with Neonatal Jaundice
MDG	Millennium Development Goal
NMR	Neonatal Mortality Rate
PBC	Perceived Behavioural Control
PHC	Population and Housing Census
TPB	Theory of Planned Behaviour
TRA	Theory of Reasoned Action
TTM	The Transtheoretical Model
UDPGA	Uridine Diphosphate Glucuronic Acid
UNICEF	United Nations International Cultural Educational Fund

WHO World Health Organization

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background

Neonatal jaundice, often known as unconjugated hyperbilirubinemia can cause serious damage to the developing brain (bilirubin encephalopathy) of the new-born, which is irreversible. Bilirubin is a yellow bile pigment produced from haemoglobin following the haemolysis of red blood cells (Egube et al., 2013). The longer the unconjugated bilirubin levels remain elevated in blood circulation, the more harm the brain incurs or even death in otherwise healthy new-borns (Egube et al., 2013). The prevention, early detection and management is so paramount in minimizing this life-threatening and socially debilitating condition.

The incidence of severe hyperbilirubinemia in nations with high income is currently seen to be in the area of 31.6/100,000 live births with 95 percent Confidence Interval of 11.8–51.3 according to Manning et al. (2007). More than 60 percent of the global neonatal deaths occur in developing nations, especially in Africa and Asia (Onyearugha et al., 2011). According to Lopez et al. (2006) this is more than the figure of deaths induced by Human Immune Virus/Acquired Immune Deficiency Syndrome and malaria combined and regional estimates revealed that rural areas in sub Saharan Africa suffer the highest Neonatal Mortality Rates (NMRs) in the universe. The global burden of hyperbilirubinemia report led by the Child Health Epidemiology Reference Group indicated that Southern Asia and Sub-Saharan Africa are the major contributors to an estimated 1.1 million infants who are likely develop the severe hyperbilirubinemia worldwide annually (Mori et al., 2013).

According to reports from the Ghana Demographic and Health Survey (GDHS), 2014, during five years preceding the 2003 and 2008 GDHS the infant mortality rate went down from 64 per 1,000 to 41 per 1,000 respectively. As well, during those five years preceding the 2003

and 2008 GDHS the under-five mortality rate had reduced from 111 per 1,000 live births to about 80 per 1,000 live births respectively. Despite this progress, more than 50 percent of infant deaths occur within the neonatal period of life and there has not been any improvement in the rate of new-born deaths lately in Ghana according to the 2011 report by UNICEF. Over two-thirds of these deaths occur in the first year of life. The sluggish progress in late years in reducing under-five mortality rate is attributed to the ascension in the neonatal mortality rate which has neonatal jaundice as one of its chief contributors. The neonatal death rate over the past five years (2014-2018) has risen from 30 to 32 per 1000 live births according to UNICEF. The report by UNICEF (2011), also indicated that Ghana's neonatal mortality rate which stands at 32 per 1000 live births as compared to the worldwide level of 20 is thus high. This makes neonatal mortality an integral component of under-five deaths, accounting for 40% of under-five mortality in Ghana. The burden of neonatal jaundice is unacceptably high in middle-income and low-income countries and has inspired calls for intense examination and attention (Slusher et al., 2017).

Exchange blood transfusion (EBT) and Phototherapy are commonly used therapeutic measures (Bhutani et al., 2011). For jaundice but due to constrained resources, devices for measuring bilirubin and effective physiotherapy are a great deal missing in lower and middle-income nations. This, matched with the high prevalence of glucose-6-phosphate dehydrogenase (G6PD) deficiency, incompatibility of blood group, late referrals and delay in recognition of high bilirubin levels in the lower and middle-income nations, has contributed to excessive usage of Exchange Blood Transfusion (Bhutani et al., 2011). No standardized protocols for classification of hyperbilirubinemia and its management have been implemented in lower and middle-income nations. This has led to wide disparity in protocols and causing difficult if not impossible comparisons between different areas (Greco et al., 2016).

A survey in Iran showed that if mothers are released too early from the hospital, jaundice in some new-borns may go unnoticed. Complications associated with hyperbilirubinemia can affect new-borns due to parents' lack of attention for re-examination of the babies following early discharge by physicians from the infirmary.

According to Shaikh & Hatcher (2005), the health outcome of a population is dependent on their health-seeking behaviour. Some do not patronise the services of the health facilities at all. The non-usage of health facilities can result in poorer health behaviour such as the patronage of traditional medications or herbs, or no administration of any form of treatment at all, which can eventually escalate the mortality rate. This has often been discouraged by health practitioners, with emphasis on encouraging people to seek qualified orthodox treatment. Luchman & Wilson (2011) posited others indulge in self-charge and utilize the services of traditional healers.

In a study taken in Uganda, it was revealed that those with fiscal constraints, normally have limited choice and often use public services that are often free of charge but under sourced despite the accessibility of many service providers. Poverty, illiteracy, poor health sector funding, as well as inadequate water and sanitation facilities result in poor health-seeking behaviours (Musoke et al., 2014).

Late reporting of neonatal jaundice in the hospital can cause the development of bilirubin encephalopathy in the baby and other associated complications that may lead to neonatal death or cerebral palsy, which is a late complication in those that survive. This study explored some health seeking behaviours of mothers in their attempt to manage babies with neonatal jaundice in the Ghanaian context. This will inform policies that will improve time taken to seek the quality health care for the jaundiced babies. Neonatal Mortality Rates due to neonatal jaundice will then be reduced with an accompanying reduction in the complications of the disease.

1.2 Problem Statement

Severe hyperbilirubinemia often leads kernicterus, which results in social, economic and medical challenges to parents, the family and the society (Sarici et al., 2004). On a global scale neonatal jaundice occurs in about 60 percent of all term new-born babies (Slusher et al., 2004). The is paucity of data on neonatal jaundice in Ghana. From the paediatric outpatient unit of the Korle-Bu Teaching Hospital in Accra, Ghana, not a single day passes without a case of neonatal jaundice being attended to (Boye & Badoe, 2016). In 2016, neonatal jaundice was the sixth leading cause of admissions at the Trauma and Specialist Hospital in Winneba with 118 cases (7.8 percent). However, little data exists on the health-seeking behaviours of mothers who have babies with neonatal jaundice in Ghana.

The path to seek treatment affects the time the disease is diagnosed and when treatment is commenced at the health facility. A study carried out by Ogunlesi & Abdul (2014) in Ogun state, Nigeria, with mothers whose infants had hyperbilirubinemia, showed that those with good knowledge of neonatal jaundice took their babies at an earlier age for medical treatment. Other studies done in Ghana showed that the determinants of the use of maternal and child health services in rural parts of Ghana is affected by factors such as level of education, religious affiliation and place of residence, and partially by an individual's occupation and ethnic background (Addai, 2000). Other factors like cultural factors like the role of the head of the household, the family's financial state and how maternal domestic activities can affect the health-seeking behaviour of these mothers.

This study, using the pathway model, investigates the behaviours of mothers of neonatal jaundice babies engage in from the onset of the disease, how others influence their decision in seeking treatment and which treatment options to take till they report to the Trauma and Specialist Hospital in Winneba-Ghana.

1.3 Conceptual Framework

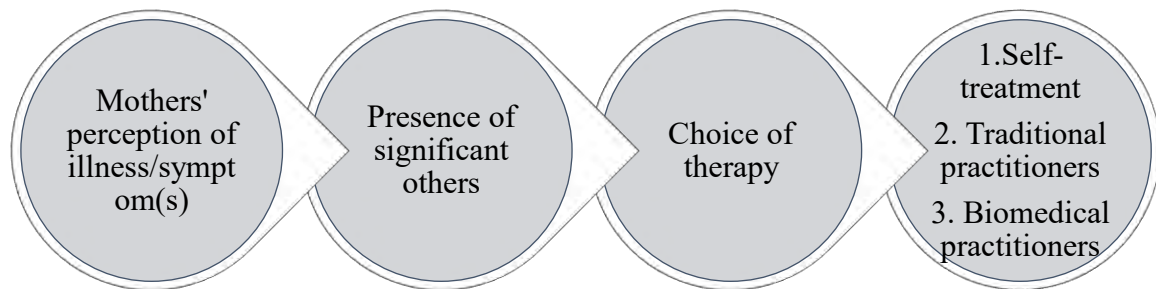


Figure 1: The Pathway Model Framework (Srijana Pandey; 2012)

This work takes the pathway model proposed by Pandey (2012) in understanding the complex processes mothers of children with neonatal jaundice go through to access care. The pathway model looks at the sequence of events that lead to the utilization of health care. Symptoms or illnesses are first identified either by the primary care giver or anyone around. That individual then falls on inputs of significant others like family and friends in deciding what step to take next in seeking care for the baby. Once that determination is pulled in, the type of health services one seeks to is then arrived at. This could be self-medication with glucose solution and camel thorn, usually herbal preparations (Boskabadi et al., 2011). Another form of health service could be the traditional health practitioner or the biomedical health practitioner.

In some Ghanaian settings, the use of traditional remedies is culturally acceptable for reasons that these practices have been with the locals since time immemorial (Opoku-Mensah, 2015). In other words, spiritual modes of operation and cultural beliefs drive the use of traditional remedies.

1.4 Objectives

1.4.1 General Objective

To assess the health-seeking behaviour of mothers of babies with neonatal jaundice in Winneba.

1.4.2 Specific Objectives

1. To explore the beliefs and perceptions of the causes of neonatal jaundice among mothers seeking care at the Trauma and Specialist Hospital at Winneba- Ghana.
2. To describe the health-seeking behaviour path mothers who report to the Trauma and Specialist Hospital at Winneba- Ghana take in managing neonatal jaundice
3. To explore the practices of mothers in managing and treating neonatal jaundice at Trauma and Specialist Hospital at Winneba- Ghana.

1.5 Research Questions

1. What are the beliefs and perceptions of mothers of the causes of neonatal jaundice at Trauma and Specialist Hospital at Winneba-Ghana?
2. What are the health seeking behaviour paths that mothers take in managing neonatal jaundice at Trauma and Specialist Hospital at Winneba-Ghana?
3. What practices do mothers engage in managing and treating children with neonatal jaundice at Trauma and Specialist Hospital at Winneba- Ghana?

1.6 Significance of the study

Studies revealed certain paths taken by care-givers and mothers in attempt to provide health care to their ill neonates. Some of these paths in the literature include self-medication with topical or enteral remedies, usually herbs. Others seek advice from authorized and unauthorized drug sellers or traditional healers. Some mothers also go for medical care in health facilities.

This study looks at paths that mothers in a Ghanaian setting may take in order to provide medical care to their neonates. This study will highlight sources of delay in seeking health care which increases the chances of brain damage by the jaundice. This will inform policy holders of the need to put in measures to improve early detection and management by removing these barriers. Thus improve the Neonatal Morbidity and Mortality Rate in the Winneba Community.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

This chapter reviews studies done in relation to neonatal jaundice. The literature review focuses on morbidity and mortality related to new-borns and to neonatal jaundice, beliefs and perceptions of the causes of neonatal jaundice among mothers, health-seeking behaviour path mothers take in managing neonatal jaundice and the practices of mothers in making out and treating neonatal jaundice. Literature on theories of Health-Seeking Behaviour for Care, Transtheoretical Model, Theory of Planned Behaviour and Theory of Reasoned Action and the Pathway Model were reviewed.

2.2 Neonatal Morbidity and Mortality

The 2013 Child Mortality Report by UNICEF indicated that tremendous advances have been made globally in decreasing child death rate since 1990. Since then the under-five Mortality Rate globally has sunk by 49 percent from a high 90 deaths per 1,000 live births in 1990 to 46 deaths per 1000 live births in 2013. With the exception of Sub-Saharan Africa and Oceania, all these regions have reduced the rate by at least 50 percent. By 2050 it is estimated that close to 40 percent of all births will occur in Sub-Saharan Africa, and 37 percent of children below five years of age will be living there, thus the number of Under-Five Mortalities could stagnate or even rise without much progress in the location.

The global Neonatal Death Rate went down by 40 percent, from 33 deaths per a thousand live births in 1990 to 20 per a thousand live births in 2013. Out of this roughly two-thirds of these neonatal deaths occurred in only 10 countries, with India accounting for over 25 percent and Nigeria accounting for about a 10 percent, according to the 2014 UNICEF report.

Lawn et al. (2005) posited that more than one million children delivered in Africa die within the first week of life and half that number die on day one of life. Most of these deaths take

place at home unseen and unrecorded. This is a worldwide issue, especially in sub-Saharan Africa with Ghana being no exception (Kwara, 2012). The WHO (2016) reported that the Neonatal Death Rate globally has dropped from 37 per 100 live births to 19 per 100 live births from 1990 to 2016 respectively. Despite this drop in neonatal death rate in Sub-Saharan Africa by about 40 percent, the number of neonatal mortalities remained almost unchanged from 1990 to 2016 which was as a result of the growing birth rate. Southern and Central Asia have as high neonatal mortality rates as sub-Saharan Africa of 28 per 1000 live births with Europe and Americas recording 3 and 4 deaths per 1000 live births respectively. WHO report also indicated that at the national level, 50 percent of all neonatal mortalities are focused in just five different states, namely, Ethiopia (3 percent), the Democratic Republic of the Congo (4 percent), Nigeria (9 percent), Pakistan (10 percent) and India (24 percent). Ghana's neonatal mortality rate has gone down from 42 per 1000 live births in 1990 to 27 per 1000 live births in 2016, which is almost the same as that of sub-Saharan Africa of 28 per 1000 live births (WHO, 2016).

Among the cases of neonatal death is neonatal jaundice, which is a case of jaundice that occurs in babies who are between a day old to 28 days. Jaundice according to Moore (2016) is the medical condition that describes yellowish discoloration of the eyes and skin. She further states that jaundice forms when there is too much bilirubin in systemic circulation.

2.3 Neonatal Jaundice

Neonatal jaundice is among the leading causes of morbidity, with neonatal jaundice making 35 percent of admissions to the neonatal intensive care unit per a research carried out in Southeast Nigeria (Onyearugha et al., 2011). Mostly prematurity, infective causes, G6PD deficiency, as well as the effects of negative traditions and social practices like consumption of herbal drugs in pregnancy, the habit of applying dusting powder on infants, the use of

naphthalene balls to store baby's clothes are the main constituents of the aetiology in developing countries (Olusanya et al., 2009).

Hyperbilirubinemia is a common and, in most cases, benign problem in new-borns. Jaundice is observed during the 1st week of life in approximately 60 percent of term infants and 80 percent of preterm infants (Ambalavanan & Carlo, 2012). Neonatal jaundice is a benign, self-defining, non-problematic condition that is a usual occurrence in at least 60 percent of neonates in the beginning few days of life (AWHONN, 2006). Hyperbilirubinemia is an abnormally high concentration (given the age of the infant in hours) of the serum bile pigment bilirubin (AWHONN, 2006). It is the most common clinical condition requiring evaluation and discourse in the new-born (Escobar et al., 2005) and has been named as one of the most common cause for late preterm infant readmission (Hillman, 2007; Shapiro-Mendoza et al., 2008). According to Mishra et al. (2008), neonatal hyperbilirubinemia is defined as a total serum bilirubin level that is more than 5 mg per decilitre (85 μ mol per L) and it is a frequently encountered health problem. Jaundice is a critical problem within the first week of birth. It is a distressing condition for the physician and a source of worry for the parents. High bilirubin levels in blood circulation could be toxic to the developing nervous system and may eventually lead to neurological deficits, even in term neonates. Virtually 60 percent of term new-borns become clearly jaundiced in the first week of life. In most instances it is non-threatening and no intervention is needed. About 5-10 percent of them have clinically recognisable hyperbilirubinemia requiring the use of phototherapy (Mishra et al., 2008).

For most of the babies who are diagnosed, hyperbilirubinemia is a natural condition that resolves as the liver matures; however, hyperbilirubinemia is the primary cause for most hospital re-entrance fee during the neonatal period (Geiger et al., 2001). Similarly, Scrafford et al. (2013) assert that approximately 60 percent of term babies and 85 percent of preterm

babies will develop clinically apparent jaundice. This clinically apparent jaundice is what is termed “physiological jaundice”. Physiological jaundice mostly becomes clinically apparent on the third day, peaks between day five to seven and resolves by the end of the second week (Beebi & Evans, 2011).

The incidence of severe neonatal jaundice per 10000 live births was found to be highest in the African region at 667.8, followed by Southeast Asia in 251.3, Eastern Mediterranean with 165.7 and Western Pacific region with 9.4 per 10000 live births and the Americas and European regions each had a substantially lower incidence of 4.4 and 3.2, respectively (Slusher et al., 2017).

In that respect several instances of neonatal jaundice, which include, infections in the baby, biliary atresia, galactosemia, incompatibility of mother and baby’s blood groups, rhesus incompatibility, impaired conjugation of bilirubin in Crigler-Najjar syndrome and Gilbert syndrome, drug reactions and some haemoglobinopathies (Egube et al., 2013). Ullah et al. (2016) indicated the relationship between breast milk of mothers and the clinical syndrome is suggested by incessant occurrence of prolonged and severe neonatal unconjugated hyperbilirubinemia with no identifiable causes in breast-fed babies of the seven mothers; by rapid decrease in hyperbilirubinemia after stopping breastfeeding of the babies; by absence of severe jaundice in bottle-fed babies; and, in one case, by rapid reduction in hyperbilirubinemia when artificial feeding was temporarily substituted for breast milk and subsequent prolonged hyperbilirubinemia when breast feeding was restarted.

Glucuronyl transferase catalyses the transfer of glucuronic acid from uridine diphosphate glucuronic acid (UDPGA) to bilirubin and other receptors to form the corresponding glucuronides. The inhibition of Glucuronyl transferase activity could theoretically result in unconjugated hyperbilirubinemia. So, there is a relationship between mother's milk and the

pathogenesis of the syndrome which is mostly tested if all test for all other causes come out negative (Olusanya et al., 2009).

In Ghana, around one million babies are delivered every year, out of which about 30,000 die in their first 30 days of life. A five-year neonatal mortality pattern in a Ghanaian Teaching Hospital in Kumasi called Komfo Anokye Teaching Hospital, was assessed after the implementation of strategies to attain the Millennium Development Goal (MDG) 4 from 2008 to 2012. It came out that the five topmost causes of neonatal mortalities within the period were neonatal jaundice, prematurity, neonatal sepsis, birth asphyxia and respiratory distress (Siakwa et al., 2014). A study conducted at the Child Health Department of the Korle-Bu Teaching hospital revealed severe neonatal jaundice to be the most important and preventable cause of cerebral palsy amongst Ghanaian children (Okertchiri, 2016).

2.4 Health Behaviour

Health behaviour is any activity that is performed by people to improve or maintain their health status (Sarafino, 2008). Karen et al. (2008) cite the definition of Gochman, which points to health behaviour as “those personal attributes such as feelings, expectations, motives, values, perceptions and other cognitive elements... that relate to health maintenance, to health restoration, and to health improvement”. Health behaviour is thus a collection of actions carried out by individuals or a group of people to maintain or better their health state, prevent diseases, and to control and treat diseases.

2.5 Empirical Framework

The empirical framework of the subject area comprised the review of related empirical literature based on the specific aims of this study. This section was structured based on the following sub headings; the beliefs and perceptions of the causes of neonatal jaundice among mothers, the health-seeking behaviour path mothers take in managing neonatal jaundice and the practices of mothers in managing and treating neonatal jaundice.

2.6 The Beliefs and Perceptions of the Causes of Neonatal Jaundice among Mothers

Dehghani & Efazati (2015) conducted a research to look into the cases of cholestasis in neonates with hyperbilirubinemia talked about the importance of preparing families and care centres on the effects of jaundice, its seriousness, and complications that may rise due to the sickness. It notes that a delay in diagnosis is one of the biggest challenges and a well-known reason for complications.

Hemmati & Inaloo (2013) presented a lot of background information on the causes of jaundice in neonates in Nigeria and was a good example of many of the studies done in Africa in finding out the cause of neonatal jaundice. They were primarily testing many different components that may induce or cause an outcome on the new-borns in contracting jaundice. They established that the commonest causes of the jaundice, which they referred to as severe hyperbilirubinemia were blood group incompatibility, G6PD deficiency, and sepsis. Hemmati & Inaloo (2013) likewise found that neonates with severe hyperbilirubinemia had previously-born siblings with the condition, were released from the hospital early, were delivered through normal vaginal delivery, were breastfed, or their mothers came from a similar cultural background, which were listed as risk factors. They also surveyed the mothers on ethnic and ethnic background and training level and found that ethnic background had more of an issue than education level on preventing severe hyperbilirubinemia complications. This was an interesting finding and was standardized to some Zimbabwe study in that ethnicity had an effect on cognition and attitudes.

The cause of ABO (blood group) incompatibility is reaction of maternal anti-A or anti-B antibodies to the A or B antigen on the red blood cells of the baby (Escobar et al., 2005). It is seen usually only in type A or B neonates born to type O mothers because these mothers make anti-A or anti-B antibodies of the IgG class which crosses the placenta, while mothers of type A or B usually make anti-A or anti-B antibodies of IgM class which do not cross the

placenta. In the USA, Patra et al. (2004) found Rhesus disease to be the most frequent cause of EBT in 34 percent, followed by ABO incompatibility in 20 percent, with the causes of jaundice not able to be identified in 44 percent. In most studies (Iran, India and Nigeria), more than half of the cases of severe hyperbilirubinemia who had EBT, had no cause identified. ABO incompatibility was present between 20 percent and 40 percent, Rhesus disease 5 percent to 34 percent, red blood cells enzymes defects or membranopathy between 0 and 19.1 percent (12, 25, 26). Badiie (2007) showed that ABO incompatibility was led to just over 22 percent of new-born infants who had Exchange Blood Transfusion.

One element that could increase the risk of jaundice is a glucose-6- phosphate dehydrogenase (G6PD) deficiency, which is common in those from Africa and the Middle East. An article by Abolghasemi & Mehrani (2004) talked about the prevalence and effects of G6PD deficiency in new-born infants in a big city in Iran. They tested the cord blood of 2000 male and female neonates with quantitative and qualitative red blood cell G6PD assays for the lack. The researchers concluded that a prevalence rate of 2.1 percent was relatively high and that rates of jaundice are three times as high among those neonates with a G6PD deficiency. Abolghasemi & Mehrani (2004) also concluded that this emphasized a need for screening for this deficiency as there is a much higher probability that they will develop jaundice; they must be monitored closely and may require to be handled promptly.

A similar article by Ahmadi & Ghazizadeh (2008) looked into the same idea conveyed in the previous article but includes other potential lawsuits as well. The study differs in location; new-borns tested in this study were born in the north of Israel, in the Mazandaran province, a much different climate and country as well as differing ethnicities than the metropolis in the previous study by Abolghasemi & Mehrani (2004). In the study by Ahmadi & Ghazizadeh (2008), they tested 1018 new-born babies and performed a similar diagnostic test. The researchers then analysed the data to determine the prevalence of sepsis, ABO compatibility,

G6PD deficiency, or an indeterminate reason. Ahmadi & Ghazizadeh (2008) found that the prevalence of sepsis as a cause was 2.7 percent, ABO incompatibility was 2.9 percent, G6PD deficiency was 13.6 percent, and undetermined causes was 80.1 percent. With this study, the neonates in the area had a six times higher rate of prevalence of G6PD. Perhaps the higher rate of prevalence of G6PD was due to the fact that, new-borns in this area of Iran may be of a different ethnicity than those in central Iran. Both of these subjects as a whole tell us that the rate of prevalence of G6PD deficiency in Iran is high in general, but that it may be different according to the specific region.

Breast milk jaundice is hyperbilirubinemia whose aetiology is not well known but is associated with breastfeeding and is a diagnosis of exclusion (Ullah et al., 2016). Ullah et al. (2016) indicated that the difference between breast milk jaundice and breastfeeding jaundice should be noted, with the latter being caused by poor breast milk production and intake by the baby. Memon et al. (2016) found that babies who suffer from breastfeeding jaundice are often mildly dehydrated and exhibit weight loss during the early stages of life.

A research was conducted on mothers to ascertain their knowledge, attitude and behaviour with respect to neonatal jaundice in Iran (Khalesi & Rakhshani, 2008). The research used 400 mothers in a hospital in a comparatively big location. They established that although the mothers had overall good knowledge about diagnostic methods, they did not know much about the causes, complications, harmful symptoms, and prevention of the disease. The mothers' knowledge of the disease was found to induce a direct correlation with the mother's education level and age. Khalesi & Rakhshani (2008) also gave background information on neonatal jaundice and discussed the complications that can originate from late detection and handling. They then emphasized the importance of the mothers' knowledge of the disease in preventing complications. They found out that the mothers did not have a lot of knowledge, although about half had some knowledge about the condition. The study was performed in a

big city, with mothers that hold a higher education level than those in rural fields. Larger cities would be anticipated to take in a lower incidence of complications associated with neonatal jaundice due to the easy access to the technology and equipment present in most developed nations.

2.7 The Health-Seeking Behaviour Path Mothers Take in Managing Neonatal Jaundice

One of the fundamental needs of humans is health. This goes with other things like clothing, shelter and food. Health, according to World Health Organization (WHO) is not just the non-existence of disease or disability but a state of complete social, mental, physical and spiritual well-being. Good health goes beyond the absence of disease but also to be in complete harmony with the environment and oneself.

Health-seeking behaviour can be defined as a “sequence of remedial actions that individuals undertake to rectify perceived ill health” (Bhuiya, 2009). The duration from onset of symptom of the disease to contacting a healthcare provider, the type of healthcare provider that is chosen by the household, and the willingness of patients comply with treatment are included in this definition. A large body of research deals with this question and several models and theories in sociology, psychology, public health, and anthropology have been established to give a theoretical framework. Psychological models include pathway models and health belief models (Hausmann-Muela et al., 2003; Prosser, 2007). The pathway models describe various steps in decision making and centres on the path that households chart until the patronage of a health service.

Health seeking behaviour can be put in two categories: Illness behaviour and sick role behaviour (Grundy & Annear, 2010). Illness behaviour is made of activities undertaken by individuals who experience symptoms but are yet to receive diagnosis. It is oriented toward finding one’s state of health and discovering appropriate remedies (Brannon & Feist, 2010). Sick role behaviours are activities engaged in by individuals who believe they are ill

themselves, for the aim of getting better. This is to say sick role behaviour occurs after one has been diagnosed of a condition. It is assumed that one should seek advice and cooperate with medical experts and seek medical care always. However, like most developing countries, health seekers in Ghana, tend to do so based on the availability of resources at the disposal of the family (Nyonator & Kutzin, 1999). Health seeking behaviour of any member of a household is preceded by a decision-making process that is further governed by individual and/or household behaviour, community expectations and norms as well as the behaviours and characteristics of the health provider. Based on this, it can be said that the nature of health seeking is not homogenous and is subject to non-cognitive as well as cognitive factors that require a contextual analysis of health seeking behaviour (Olenja, 2003).

Maternal health seeking behaviours and the health state of mothers have massive affect on the lives of both the women and their respective children. There is a lot of work being done with regards to health-seeking behaviours which is specifically targeted at women. Such a situation reiterates the challenges women go through in most of the low income countries where there is overreliance on their male counterparts who serve as heads of each household in order to be able to have access, practically or financially, to medical services. Support might also be needed from the larger larger social network to help in caring for their children and performing domestic duties. Due to the long distance they sometimes travel to seek medical consultation, which often ends with long periods of waiting when they get to the health provider, they need all the support they can get to be able to take care of these duties (Bedri, 2001; Manhart et al., 2000). There is some amount of knowledge with concerning the structural, social and cultural challenges confronted by these women found in various contexts with regards to the health seeking behaviours portrayed.

Despite lack of accessibility being commonly suggested as a factor in health facility use, which supports the outcomes of most of the other studies, women seem not to have any difficulty in travelling a long distance to seek medical attention, which may provide a more expensive health service which may be seen to be of ‘decent quality’ (Tayelgn et al., 2011).

The type of health service provider that one goes for, or the type of health seeking behaviour one adopts, may differ relative to the kind of disease the person has. These factors contribute to infant mortality. For example, Chadoka-Mutanda & Odimegwu (2016) found that maternal health-seeking behaviour prior to and during pregnancy and post-delivery affects the likelihood of under-five mortality among children.

Although the concentration is often on cultural and social limitations on women, there are other empowering and limiting factors. Amin et al. (2010) provided factors that have the likelihood of affecting the capacity of women to get treatment: potential money income, actual money income, the individual’s social life and social status, autonomy, liability and networks. They argue that the following factors will be considered after a woman has considered how the quality of service is, her privacy, how caring, how embarrassing, how feasible and how suitable her options are, within the physical set-up of that location. In a study, gender divide in knowledge, awareness and health-seeking behaviour was noticed not to favour women (Ahmed et al., 2009). This was not unexpected, considering the patriarchal customs observed in the society the study was done.

Bedri (2001) reiterated in her research on the health seeking behaviour of women on abnormal vaginal discharge that the responsibility of the man and the accessibility of some well-informed social contacts are essential factors in obtaining prompt diagnosis and utilisation of services of health care providers. She proposed that women need to be strengthened by health system development and policies that inspire the establishment of ‘expert husbands’ and ‘expert social networks’ which will ensure the essential social set-up is

there to back all women through every step of the process in seeking health care. Ahmed et al. (2000) also advocated that more effort is needed to improve awareness in various communities of the short term and future benefits of improving the health of women. Which also appeals quite directly to current social organisations and presents the chance to empower them, resulting in favourable health results, rather than an additional attempt to alter the behaviour of such individuals.

Mothers adopt several strategies that reflect the complex nature of decision-making processes they go through on a day-to-day basis, balancing practical, economic, social, cultural and individual factors, not necessarily in reaction to one-off secluded case of sickness. This they say proposes a purpose-driven action instead of an unreflecting and programmed behaviour (Mbagaya et al., 2005). This impression is important across the research surrounding health seeking behaviours and imitates my own desire to gain in-depth understanding of health-seeking behaviour of mothers. The sad situation of women being seen as an unfortunate group due to our predominantly patriarchal system needs a lot of awareness creation and women empowerment.

2.8 The Practices of Mothers in Managing and Treating Neonatal Jaundice

Research on neonatal jaundice in Kano, Nigeria aimed to identify knowledge, attitude, and practice of household caregivers related to neonates with jaundice. Researchers in the Nigerian study found that most of the caregivers did not look for or observe jaundice in their neonates, but that they would seek care at a hospital for the disease. There was a substantial relationship between the level of education of mothers and caregivers, and what they would do if their neonates developed jaundice. The form of treatment sort after by caregivers differed among ethnic groups (Egube et al., 2013). The Nigerian study essentially drew attention to rural populations that may not have access to education about jaundice. Based on these results, other rural areas may show similar patterns in knowledge and attitudes, and

interventions may be necessary to increase public knowledge about the disease. The study in this paper on a rural area in Iran was a replica study from the Nigerian study (Egube et al., 2013).

A study done by Boskabadi et al. (2011) in Iran found that the use of herbal or traditional remedies may lead to a delay in proper diagnosis and treatment. They looked at three different herbs, which were found to be the most used herbal remedies by mothers and midwives for treatment. Boskabadi et al. (2011) found that infants given these remedies had a higher incidence of complications due to hyperbilirubinemia. Complications are more serious due to a delay in taking the neonates to the hospital.

This delay was caused by the belief that the herbal remedies should improve the jaundice, when in fact the effects are rather harmful. Ainsworth & Bowlby (1991) found that most of the plants were effective, and not widely used in any other place in the world but Mashhad, Iran. The researchers discuss that these herbal remedies could be just as effective as the high-tech equipment in the larger, more urban cities around the world that may not be interested in looking into traditional remedies. The two studies by Boskabadi et al. (2011) and Ainsworth & Bowlby (1991) are contradicting, which creates interest in this area and may lead to more research on herbal remedies.

Boskabadi et al. (2011) reported that some hospitals discharge mothers too early. Some new born babies get discharged even before jaundice appears and hence complications can always occur. Mothers are therefore often the first people to detect neonatal jaundice in affected babies and hence the lack of understanding of this condition by these mothers could lead to more severe conditions.

A study conducted by Le et al. (2014) also indicated that the use of unorthodox treatment, certain cultural practices and low maternal knowledge might delay or limit detection or care seeking for jaundice. Majority of patients report to health facilities and pharmacies/drug

shops, while self-treatment with local herbs and traditional healers are done by few patients (Musoke et al., 2014).

A study was done to evaluate the performance of a two-colorimeter (Bilistrip™) as a possible screening tool for detecting significant jaundice in the first week of life by caregivers or mothers and the results indicated that Bilistrip™ is a potential decision-making tool for mothers which help them detect significantly high serum bilirubin that may require early hospital management. The study, however, did not look at other alternative forms of treatment and actions these mothers and caregivers can potentially take upon detecting the jaundice (Bolajoko et al., 2017).

A descriptive, cross-sectional study conducted by Moawad et al. (2016) among mothers aimed at assessing perceptions, practices, and traditional beliefs revealed unexpected majority of the mothers having satisfactory level of knowledge and attitudes related to neonatal jaundice. However, cultural beliefs and traditional infant care practices still had an impact on them regardless of their educational level (Moawad, et al., 2016). This study, however, failed to look at the health-seeking behaviours of these mothers.

A multi-centre study by Ezeaka et al. (2014) among women attending antenatal clinics in Abuja, Lagos and Port Harcourt, identified the pattern and predictors of maternal care-seeking practices for neonatal jaundice in these three culturally-distinct settings in Nigeria. The findings of the study revealed that timely and appropriate treatment of neonatal jaundice is crucial for preventing the associated morbidity and neurodevelopmental sequelae of neonatal jaundice.

Babies with jaundice who received traditional remedies before being sent to the hospital report late for re-examination compared to control group who were fed with breast milk alone (Boskabadi et al., 2011). Traditional remedies like camel's thorn, flixweed and sugar solution do not improve jaundice. This according to Boskabadi et al. (2011), may cause pseudo

confidence in parents about treatment effect of these remedies and wait long for the jaundice to resolve. They further concluded that kernicterus usually occurs within 4th to 7th day of life; therefore, delay in sending the baby to the hospital may cause severe complications.

Most patients in the Wakiso district of Uganda did not have a regular medical professional to care for their health or to consult. Among those who did not have a regular medical professional to attend to them, majority of them patronized the services of any worker in the health facilities, whether the person is qualified or not (Musoke et al., 2014). Gross deficiency in mothers' knowledge of neonatal jaundice may adversely affect the actions of mothers in identifying neonatal jaundice and cause a delay in seeking medical attention (Zhang et al., 2015).

2.9 Theoretical Framework

Health-seeking, according to Onifaso (2016), is a conditioned behaviour hence; there is always the need to provide a lot of understanding to people in relation to their motivation for the type of behaviour they elicit. There are models used to explain health-seeking behaviours, going beyond just knowledge, attitude and practices. These models include the Health Belief Model (HBM), the Theory of Reasoned Action (TRA), the Theory of Planned Behaviour (TPB), the Transtheoretical Model and the Pathway Model

2.9.1 Health Belief Model (HBM)

The central assumption of the Health Belief Model is based on the belief that "behaviour is a function of the subjective value of an outcome and of the subjective probability or expectation that a particular action will achieve that outcome (Tanner- Smith & Brown 2010). The model is based on the idea that people are more likely to change their behaviour and adhere to treatments (Olsen et al. 2008) if: they perceive that they are at risk of contracting the disease (perceived susceptibility), they perceive the disease might have an unfavourable outcome (perceived severity), they perceive the proposed health behaviour to be both

effective and practical (perceived benefits), they perceive the barriers to adopting the behaviour to be minimal (perceived barriers), they perceive themselves to have the ability of applying and practicing the specific behaviour proposed (perceived self-efficacy), and they have the cues for motivating their actions such as internal cues (pain, symptoms, past experiences) or external cues (advice from friends, relatives and mass media campaigns) (cues to action).

By applying this model to the issue of health seeking behaviour, it is possible that the model can aid in shining more light on the pattern of some belief systems that patients hold in terms of substance use, and the manner these beliefs mediate the established relationship between health seeking behaviour and social norms. That is to say the Health Belief Model has the potential to help identify significant thoughts or beliefs about health seeking behaviour that patients hold and their relationship and potential mediation influencing problematic behaviour.

2.9.2 Theory of Reasoned Action and Theory of Planned Behaviour

According to the theory of reasoned action, the most precise determinant of behaviour is behavioural intention. Direct determinants of people's behavioural intentions are their attitudes towards the performance of the behaviour and the subjective norms that are associated with the behaviour (Montano & Kasprzyk, 2002). The subjective norm of an individual is determined by whether important colleagues accept or disapprove of the behaviour (that is, normative beliefs), which is weighted by the individual's drive to comply with those colleagues (Montano & Kasprzyk, 2002).

Ajzen (2011) brought in the theory of planned behaviour by the addition of Perceived Behavioural Control (PBC) to the Theory of Reasoned Action, in an attempt to account for elements outside an individual's volitional control which may affect the person's behaviour and intentions. The extension was based on the notion that behaviour is determined by ability

(behavioural control) and motivation (intention). Montano and Kasprzyk (2002), were of the view that behavioural control is related to Bandura's concept of self-efficacy, that made reference to one's belief in his/her ability to carry out a specific behaviour under different circumstances. In reference to that theory of planned behaviour, behavioural control that is perceived is determined by control beliefs with regards to the absence or presence of enablers and barriers to behavioural performance, weighted by the perceived input of each element to enhance or impede behaviour. Thus a person who holds strong control beliefs regarding factors that aid behaviour will have high perception control, resulting in an increased intention to execute that behaviour (Montano & Kasprzyk, 2002).

The Theory of Reasoned Action (TRA) and the Theory of Planned Behaviour (TPB), which started as the former, focus on theoretical constructs that are concerned with motivational factors of an individual as determinants of the likelihood that a certain behaviour will be portrayed was a theory proposed by Ajzen (2011) to enhance the predictive power of the theory of reasoned action. So TPB is an extension of the TRA and has an additional construct: perceived control over the behaviour. TRA and TPB have been used successfully to predict and explain a wide range of variation in actual behaviour of people (Ajzen, 2011). These theories focus on behaviours that subsequently impact health, whether positively or negatively but do not look at behaviour after diagnosis or symptoms of specific conditions are established.

2.9.3 The Transtheoretical Model (TTM)

According to Prochaska (2013), the proponent of the trans-theoretical model, people who change their behaviour go through a series of stages of change ranging from pre-contemplation to maintenance. There are five stages in all. Understanding where exactly an individual is within this change process helps service providers carve interventions that best fit that individual.

The first stage, which is the pre-contemplation stage, the person has no intention to make changes to his/her behaviour within the coming six months. The occurrence of an event causes the person to consider changing behaviour, then that person enters the second stage of contemplation. In this second stage, the person forms an intention to change and the individual works towards effecting this change in behaviour in the ensuing six months, but not the following month. People who find themselves in stage three, prepare for action, attempt to change their behaviour in the following month. Individuals in stage four, which is considered action stage, individuals actually change their behaviour, but they have only been involved with the change for less than six months. The final stage which is the fifth stage is called the maintenance stage, in which they have been involved in the new behaviour for over six months. Even though progression is mainly onward and chronological, relapse at an early stage is likely (Bogart & Delahanty, 2004). The Transtheoretical Model (TTM) explains how people who effect change in their health seeking behaviour go through five stages of change. The series of change ranges from pre-contemplation to maintenance. Overall, this theory helps provide information on behaviour change that can help to predict which clients are ready to begin treatment, what their needs are throughout the change process, and who is likely to succeed in treatment.

2.9.4 Pathway Model

According to Kroeger (1983) the “pathway model”, which describes the actions taken by a patient from the point of recognition of clinical symptoms of the disease to the use of a specific health care facility for treatment. This framework, takes into account how social and cultural factors shape and affect the sequence. Pathway model stresses the importance of “significant others” and the decision-making process. A concept elaborated by Janzen (1987), which is a key for understanding decision-making in therapeutic processes. In the disease process the involvement of support group in management can successively differ. Most

researches that use pathway model examine the pathway until the person's first point of contact with any healthy institution.

Kroeger (1983) posits that the "Pathway Model" describes the steps taken by a patient from the stage of identification of the clinical symptom of a particular disease to the utilization of a particular individual or facility for its treatment. This is to say; this model looks at paths taken after identifying symptoms to the use of health services. In the course of patronizing health services, individuals can switch from service provider to another. This model also stresses the importance of "significant others" in the health services utilization by the individuals (Hausmann-Muela et al., 2003).

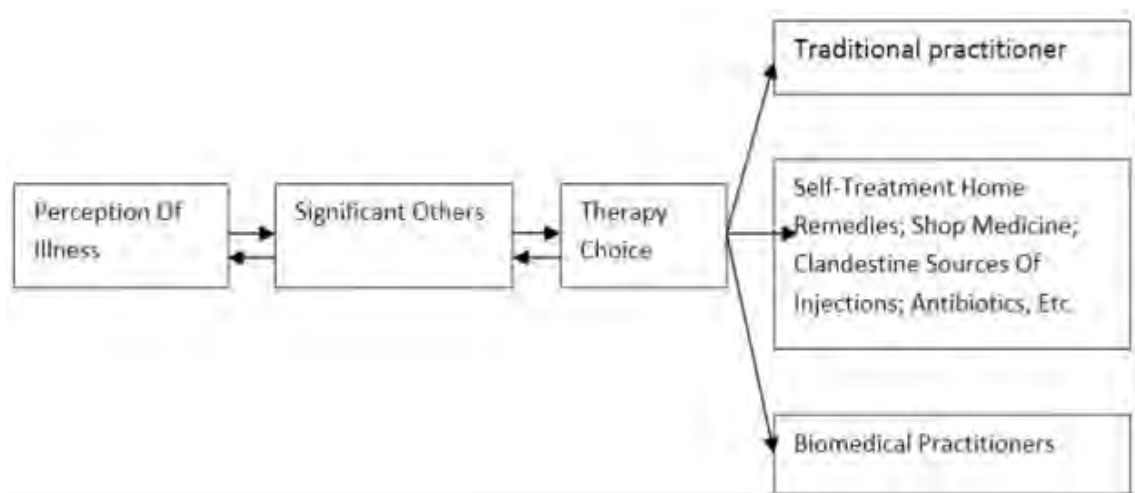


Figure 2: The Pathway Model Source: (Srijana Pandey, 2012)

Pryer (1989) shows the tragic consequences of the vulnerability spirit. From the study of households, when the households fall ill family has to face certain problems like women and children have to go out for work, sold their livelihoods to buy medical, incomplete medical treatments. And if they want to satisfy these needs they have to go for loans, neighbours support, decreased food consumption etc. when women go out for job she will not get time for their children it causes in increasing the children's vulnerability for illness.

This study therefore adopted the "Pathway Model". This model best suits the study that seeks to explore the health-seeking behaviour course of the mothers of babies diagnosed of

neonatal jaundice. It also looks at how individuals and other factors influence these behaviours from the time of first identification of the jaundice. A decision is then arrived at, which informs what treatment modality will be taken.

CHAPTER THREE

3.0 METHODOLOGY

3.1 Introduction

This chapter outlines the methods and procedures that were employed to obtain and analyse data on health-seeking behaviours of mothers of children with neonatal jaundice in Winneba. Rajasekar et al. (2013) opined that research methodology are steps taken by researchers in the process of their study in explaining, describing and predicting phenomena. The chapter includes the profile of the research approach, the study design, study area, sampling, data collection tools and techniques, data analysis and ethical considerations.

3.2 Research Approach

Qualitative research stresses upon exploring and understanding the meaning people give to a social or human challenges (Creswell, 2014). According to Lindlof & Taylor (2002), qualitative research explains social practices, experiences and meanings that people give to a particular phenomenon. In line with Creswell (2014) and Lindlof & Taylor (2002), this exploratory study adopts the qualitative approach to investigate the health seeking behaviours of mothers of neonatal jaundice babies focusing on their experiences prior to their visit to a medical facility. Lincoln and Guba (1985) posit that, in qualitative research, social phenomena are investigated with minimal priori insight in order to gain insights of the phenomena. In line with their definition, a qualitative approach is suitable for this study since it investigated the health seeking behaviours of mothers of neonatal jaundice children focusing on their experiences prior to their visit to a medical facility. The qualitative research approach enabled the researcher to fully describe in detail the health-seeking behaviour of mothers of babies with neonatal jaundice in Winneba.

Qualitative research studies are usually underpinned by the interpretivist philosophical framework which was deemed appropriate to explore health-seeking behaviours of mothers

of babies with neonatal jaundice in the Winneba community. Interpretivism is associated with scholars like Crotty (1998) and Ahmed et al. (2001). Cohen et al. (2007) assert that, to interpretivists, reality is multi-layered and complex. They believe that people are reactive and actively construct their social reality. They further note that the social world should be studied in the natural world, through the eyes of the participants, without the intervention of the researcher. The qualitative research approach is based on a relativistic, constructivist ontology that posits that there is no objective reality. (Krauss., 2005). To this end, this study looks at multiple realities constructed by participants who experience a phenomenon of neonatal jaundice. Thus, the research approach enabled the researcher to fully describe into details the health-seeking behaviour of mothers of babies with neonatal jaundice at the Trauma and Specialist Hospital in Winneba, Ghana.

In-depth interviews were carried out with eligible mothers who agreed to take part in the study to explore their perception of causes of neonatal jaundice, their health seeking behaviour paths and the practices the mothers engage in in managing and treating their babies.

3.3 Study Design

A case study design was adopted for this qualitative research. Yin (2014) opined that a case study is empirical review that examines a current phenomenon in-depth and within a real life setting. He also indicated that qualitative case study is most appropriate when the study focuses on “How?”, or “What?” questions. The case study method is particularly stimulating when the studied phenomenon is not clearly or not sufficiently theorised. Stake (2010) defined case study methodology as an approach of inquiry in which the investigator explores in-depth an event, program, process of one or more individuals. Cases are restricted by time and activity, and researchers collect comprehensive information using a variety of data collection processes over a sustained period of time. Case studies focuses on one (or just a

few) instances of a particular phenomenon with the view of providing an in-depth interpretation of events, relationships, experiences or processes occurring in that particular instance (Denscombe., 2007). The use of case studies has become extremely widespread in social research, particularly with small scale research. (Creswell, 2012). Case studies tend to be ‘holistic’ rather than deal with ‘isolated factors’. It follows from this that within case studies there is a tendency to emphasize the detailed workings of the relationships and social processes, rather than to restrict attention to the outcomes from these (Denscombe, 2007). A single case study was deemed the most appropriate for the study affording the researcher the opportunity to execute an in-depth exploration of the phenomenon under study. The unit of analysis were the mothers of the babies with neonatal jaundice.

3.4 Study Area

Winneba is traditionally known as ‘Simpa’, which was derived from the name of the leader of the Effutus ‘Osimpa’ who led the Effutus of the Guan ethnic stock from the Northern part of Ghana to the present location (Ghana Statistical Service, 2010). It covers a total land area of 95 square kilometres. It is sandwiched by Gomoa East District Assembly on its Western, Northern and Eastern flanks. On the Southern flank is the Gulf of Guinea. The administration capital is Winneba, a town renowned for its several specialized major institutions of higher learning (Ghana Statistical Service, 2010).

According to the 2010 Population and Housing Census (PHC), the Municipality had a population of 68,597 which is made up of 32,795 males; representing 48 percent and 35,802 females; representing 52 percent and representing 3.1 percent of the total population of 2,201,863 in the Central Region (Ghana Statistical Service, [GSS] 2010). The Municipality has a youthful population with one third of the population below 15 years. The population above 18 years is 41,882; representing 61.1 percent out of which the male population is 19,623 (46.9 percent) and the female population is 22,259 (53.1 percent). It had 17,121

households and with an average household size of 3.6. The urban population constitutes 63,969; representing 93.3 percent, with 4,628 representing 6.7 percent residing in the rural areas. Winneba is a patriarchal society; predominantly, women play the role of helpers to their husbands who are perceived as breadwinners for the entire family. Decisions made by the women are often taken in consultation with their husbands or partners. Winneba is the capital of the Effutu municipality and as such, is host to numerous government and educational institutions like the Municipal Health Directorate, University of Education and Winneba Community Nursing Training College. However, the locals, popularly known as “Winnebarians” who live around the coast engage mostly in fishing activities. Winneba has a rich blend of indigenous and contemporary workers. There are multiple ethnic groups in the community. Women in Winneba mostly patronise health care from health facilities due to the availability of numerous health facilities.

3.4.1 Health Service Organization in Winneba

There are two private hospitals and three government hospitals in the Winneba community. The community also has four Community-based Health Planning and Services (CHPS) and one health centre. Trauma and Specialist hospital is a multidisciplinary secondary referral facility and the acting regional hospital. It is located in the Effutu municipality and serves the municipality and its environs. The hospital has a poorly equipped neonatal intensive care unit. It is located at the Northern part of the Winneba town known as “Low Cost” and currently serves as the acting regional hospital for the central region.

Neonatal jaundice is one of the common neonatal conditions in the Winneba Community. Many of these conditions tend to have poor prognosis if not treated promptly. Neonatal jaundice was the 6th commonest cause of admissions in 2016 and represented 118 cases (7.8 percent) of admissions to the Trauma and Specialist Hospital.

3.5 Sampling

According to Adler and Adler (2012), a sample size for a qualitative research should lie between 12 and 60 with 30 as mean. Drawing from this a sample size of twenty-four (24) mothers who met the criteria were invited to participate in the study. The sampled participants were mothers with babies diagnosed of neonatal jaundice who had been discharged following admission in the Trauma and Specialist Hospital, Winneba. The study employed purposive sampling technique to select the mothers for the study. Purposive sampling involves searching for individuals who meet a certain criterion which in this study were mothers with babies diagnosed of neonatal jaundice (Denscombe., 2007). Twenty-four (24) mothers of neonates with diagnosis of neonatal jaundice were sampled for the study.

Each day the Principal Investigator went to the ward and introduces himself to the mothers identified with babies diagnosed of neonatal jaundice. The mothers were selected at the point of discharge from the hospital with the assistance of the matron in charge of the paediatric ward. After consenting to have the interview done, we either schedule it immediately or we scheduled for a time that is convenient to them, which is mostly after their discharge has been processed.

3.6 Data Collection Methods

Data for this study were collected through interviews. The interviews were semi-structured. Brinkman (2007) asserts that qualitative interviews are forms of conversational practices where there is the production of knowledge by way of the interaction between an interviewer and an interviewee or a group of interviewees. In-depth interviews were conducted with the sampled participants, with each interview lasting between 30-40 minutes. The interviews were conducted in a designated office with the researcher not wearing uniform, and also, conducted by the same researcher to ensure uniformity of data collection. Even though there was a designated office for the interviews, the respondents were still allowed to choose the

time and place they wanted the interviews done. All the respondents chose the time and place where the interviews should be done. The researcher sought permission to do audio recording of the interview sessions using a digital audio recorder. Notes were also taken. The data collection period was two weeks, from 11th to 22nd June, 2018.

The data collection tools were pre-tested in the Winneba Municipal Hospital. Four pilot interviews were conducted with mothers with babies who had been diagnosed with neonatal jaundice at the Winneba Municipal Hospital in the Effutu Municipality in the Central region of Ghana. They were mothers of jaundiced babies who had been treated at the hospital. The pilot interviews helped to inquire if the questions were well understood, identify inconsistencies and shortfalls of the interview guide. It also helped determine the average response time of each participant. The interview guide was then revised accordingly for the main interviews.

All audio interviews were transcribed and compared to the written notes to ensure consistency in the data and to avoid loss of information.

3.8 Quality Control

To ensure accuracy and quality of data that was collected, some steps were taken during the data collection period. These steps included;

- Data collection tools were pre tested.
- Audio recordings that were transcribed were compared to field notes to ensure relevant information was not missed.
- NVivo version 12, a software for qualitative research analysis was used to develop codes and these codes were used to obtain three broad themes.

3.9 Data Analysis Procedure

The first step in the data analysis process was transferring the audio recordings to my password-protected laptop. All the audio recordings were transcribed verbatim, typed into

Microsoft word 2016 and thematically analysed. Thematic analysis is a process for detecting and analysing patterns in qualitative data (Clarke & Braun, 2013). Clarke & Braun (2013) also averted that thematic analysis works with a wide collection of research questions, including those about people's understandings or experiences. It is also used to analyse different types of data, and can be used to produce theory-driven or data-driven analyses (Clarke & Braun., 2013). Thematic analysis of the data collected was done guided by NVivo version 12, which is a software for qualitative research. The NVivo software was used to develop codes. From the codes, the researcher built themes and selected important quotations (particular sections from transcriptions). Three broad themes were obtained based on the objectives; perspectives of mothers of causes of neonatal jaundice, the health seeking behaviour paths mothers take in managing their babies with neonatal jaundice and the practices the mothers engage in treating the neonatal jaundice. These themes and related quotations presented rich and interesting stories of the participants.

In ascribing quotations to the interviewees, mothers of babies with neonatal jaundice were represented by serial numbers to ensure anonymity and confidentiality. The serial numbers for mothers of babies with neonatal jaundice were generated based on the initials of their disposition. MBNJ 1-24 were used as serial numbers meaning Mothers of Babies with Neonatal Jaundice (MBNJ 1-24). Each participant was represented by a figure ranging from one to twenty-four (1-24). The themes were thereafter explained by synthesizing them with reviewed literature and conceptual frameworks in order to make sense of the phenomenon under investigation.

Three broad themes were obtained based on the objectives; perception of mothers of causes of neonatal jaundice, the health seeking behaviour paths mothers take in managed their babies with neonatal jaundice and the practices the mothers engage in managing and treating the neonatal jaundice. Sub-themes were deduced from the data to explain the three broad

themes. The researcher used NVivo version 12, a software for qualitative research analysis to develop codes

In ascribing quotations to the interviewees, mothers of babies with neonatal jaundice were represented by serial numbers. The serial numbers for mothers of babies with neonatal jaundice were generated based on the initials of their disposition. MBNJ 1-24 were used as serial numbers meaning Mothers of Babies with Neonatal Jaundice (MBNJ 1-24). Each participant was represented by a figure ranging from one to twenty-four (1-24).

3.10 Ethical Considerations

Before beginning the study, ethical clearance was sought from the Ghana Health Service Ethical Review Committee of Research and Development Division in Accra. The Ghana Health Service Ethical Review Committee number is GHS-ERC057/02/18. Also, an Introductory Letter was requested from the School of Public Health, University of Ghana and presented to heads of the Trauma and Specialist Hospital for authorisation, prior to data collection.

An informed consent form as well as participant information sheet detailing the Principal Investigator's background, contact information, purpose of the research work, procedures, what will be expected from them as research participants, confidentiality, risks, voluntary participation and benefits of participating in the study was given to research participants.

The content of the informed consent form and participant information sheet was read and interpreted to research participants who could not read or write, in a language they understood. In reference to confidentiality, the participants were guaranteed of both low and high level of confidentiality.

Only those who agreed to take part in the study were used for the research. Upon agreement to participate in the study, research participants signed or thumb printed the consent forms after which a copy of the information sheet was given to them. After consenting emphasis

was laid on the fact that research participants could choose not to answer questions they felt uncomfortable with or inappropriate. The research participants were also made to understand that taking part in the study was voluntary and can choose to withdraw from the study at any time without attracting any consequence or it affecting the care being provided at the health facility.

The Principal Investigator conducted in-depth interviews in a designated office to ensure privacy of the research participants at all times. In order to safeguard the identity and ensure anonymity of participants, serial numbers were assigned instead of their names. Permission was asked of the participants before audio recordings were started to record all that emerged verbally during the interview. Data collected with the digital audio recorder and field notes, were all transcribed into English language. The data collected for study were kept confidential and used solely for the purpose indicated. All paper records collected were securely stored under lock and key in locked file cabinets with access to only the researcher. Electronic records however, were stored in password protected files. The researcher intends to keep both paper and electronic records for a period of three years, after which everything will be destroyed.

3.11 Trustworthiness of Data

Speziale and Carpenter (2011) describe trustworthiness as “establishing the validity and reliability of qualitative research”. Thus, qualitative research is trustworthy when it accurately represents the experiences of the study participants. Anney (2014) is of the view that the criteria for trustworthiness in qualitative research should rather be dependability, credibility, transferability and confirmability as propounded by Lincoln and Guba (2000).

Credibility is demonstrated when participants recognise the reported research findings as their own experiences (Speziale & Carpenter., 2011). The following strategies were applied to ensure credibility: Prolonged engagement requires that the investigator be involved with a

site long enough to detect and take into account distortions that might otherwise creep into the data (Lincoln & Guba., 1985). Thirty (30) to forty (40) minutes was spent on each participant to develop a trusting rapport with them during the interviews and member checks (Holloway., 2005). Member check is where data, analytical categories, analyses and conclusions are tested by participants from whom the data was originally collected (Lincoln & Guba., 1985; Polit & Hungler., 2004). Member checks was ensured using the feedback from the mothers. The purpose of persistent observation is to be able to identify those characteristics and factors in the situation that are key to the problem or issue being followed and to focus on them properly (Lincoln & Guba., 1985).

Lincoln and Guba (1985) posited that by instituting an audit trail, second party or an auditor who becomes conversant with the qualitative research, its method, results and conclusions can be able to audit the research decisions, the methodological and analytical processes undertaken by the researcher when the study is completed, and then confirm the findings of the work.

Transferability refers to the probability that the study findings have meaning to others in similar situations (Speziale & Carpenter., 2011). In this study, trustworthiness of the findings was ensured by exposing the study to colleagues for constructive criticism and by sharing the findings with other mothers with babies diagnosed of neonatal jaundice in the hospital who did not take part in the study. Peer debriefing paved the way to expose the study to questions of others who are experienced in the methods of enquiry, the phenomenon or both (Lincoln & Java 1985; Polit & Hungler., 2004).

Dependability, according to Holloway (2005) relates to the consistency of the findings of the study. The supervisor of this study was responsible for examining the methodology, data, results, interpretations, conclusion and recommendations in order to verify that they were supported by data. In this study, this activity was a means of establishing confirmability of

the study. If a study exhibits fittingness and credibility, the study is also said to have confirmability (Speziale & Carpenter., 2011). The study ensured firmness with the decision trial and also ensured confirmability through transferability, credibility and dependability. Everything in the study was accurately documented.

CHAPTER FOUR

4.0 RESULTS

4.1 Introduction

This chapter focuses on the findings from analysing the data. The researcher adopted the case study design to explore health-seeking behaviours of mothers of babies with neonatal jaundice in the Winneba community. The data were collected through a face-to-face interview with 24 mothers with children with neonatal jaundice.

4.2 Demographic Characteristics of Study Participants

Twenty-four (24) mothers with children with neonatal jaundice participated in the study. The age of the youngest mothers was between twenty-two to twenty-four (22-24) years whilst the oldest were between the ages of thirty-one to forty-two (31-42) years old. Many of the mothers, twenty (20), were married whilst four (4) of the participants were cohabiting with their partners.

The number of children participants had varied. Fifteen (15) participants had one (1) child, the youngest (infant) was between six months to one year, whilst the oldest children among those who had one child were between the ages of three to four (3-4) years old. Four (4) participants had three (3) children, the youngest child was between the ages of One (1) year to six (6) years and the oldest was between the ages of thirteen to fifteen (13-15) years.

Many mothers had education up to the tertiary level with nine (9) of the participants being Higher National Diploma holders, 10 participants with University or college Diploma certificates. Only one was a secondary school leaver whilst four (4) of the respondents were Junior High School leavers. Many participants were gainfully employed with two being unemployed.

Table 1. Demographic characteristics of mothers of babies with neonatal jaundice.

Characteristics	Number (N=24)
Age (years)	
20 – 29	13
30 – 39	9
40 - 49	2
Marital status	
Married/Cohabiting	24
Number of Children	
One Child	15
Two Children	5
Three Children	4
Age of Children	
6 months – 11 months	1
1 year – 5 years	22
6 years - 12 years	12
13 years – 19 years	2
Educational Status	
Middle/JHS	4
Secondary	1
Higher/Tertiary	19
Employment Status	
Unemployed	2
Employed	22

4.3 Knowledge of Neonatal Jaundice

Mothers' knowledge about neonatal jaundice is based on their subjective experiences at the hospital and the information they have acquired after the incident.

One mother shared her experience by remarking that:

“I personally had very little information about jaundice but I quickly checked it on google and I had some information about it though most of the information were technical. That informed me to seek for medical attention. I was also a little relieved to know that it was treatable and common amongst new born babies” (MBNJ 5)

Another mother recounted that:

“I knew a few things about jaundice but at the antenatal, we were educated to always report to the hospital if we notice anything wrong with the baby. I also knew that adequate feeding was another measure that prevents the jaundice so I think medications should be given to improve the breastmilk production. One of the old midwives who took care of me during labour said the baby developed jaundice because I was holding my waist during labour. But I brought her for the doctor himself to diagnose and treat my baby” (MBNJ 9).

A third respondent added that:

“I didn't know anything about jaundice until I came to the hospital. Before coming I heard some people say the baby developed the jaundice because I ate a lot of mangoes during pregnancy, which I did. But the nurses on the ward explained some of the causes to me when I came here” MBNJ 17).

The results showed that participants had very little knowledge about neonatal jaundice. Their current knowledge was acquired through their experiences with their jaundiced babies.

4.4 Perceptions and beliefs of mothers of causes of neonatal jaundice

The perception of mothers of the causes of neonatal jaundice was related to beliefs in supernatural/spiritual attacks, blood group incompatibility, family history of neonatal jaundice (familial), early discharge from the hospital, mode of delivery, infections, breastfeeding and similar ethnic background.

4.4.1 Myths and Beliefs Surrounding the Causes of Neonatal Jaundice

For supernatural/spiritual attacks as a cause of neonatal jaundice, the interviews suggested that mothers felt the role of spirituality in the cause of neonatal jaundice was possible. Some of them were however, not sure of the responses.

A participant had this to say:

“I strongly believe it is supernatural. All sickness and human suffering is a result of the handy work of the devil. He is behind all suffering. After my delivery, my mother advice I stay indoors and not to let many people see the baby. I thought she was old. But after some weeks of hosting visitors, my baby started to experience this illness which I was told is jaundice. I suspect some foul play though I can’t point out the culprit and I have been praying about it” (MBNJ 19).

Another participant commented that:

“It is possible but I don’t think any supernatural attack can work on my baby. I am a Christian and I believe the hand of the Lord is on my children. There are numerous evil spirits but none can touch my family. I know there are some medical situations, even jaundice, which are spiritually motivated. In my case, it cannot happen” (MBNJ-18).

A participant shared her view by stating that;

“I personally believe that could be possible because of the nature of the supernatural. I cannot be more specific. There are evil spirits and human beings who consult them for powers could use these powers for evil. When some people have evil eyes and want to disturb your life that’s what they do. Not in my case though because it quite evident that it just an infection which was diagnosed as jaundice” (MBNJ-24).

Participants believed supernatural/spiritual attacks as being the cause of jaundice though many still held the belief that neonatal jaundice was curable.

Many of the mothers indicated that families share similar blood characteristics and inherited diseases, as such, if the parents of the child have a history of the existence of jaundice in the family, it could be transferred to the child through birth. The participants perceived this channel of transmission as highly possible. The interviews further revealed that participants who had no family history of jaundice were also of the belief that neonatal jaundice could be inherited from a family member.

A participant shared her view by stating that:

“I believe family history of the child could contribute to his or her chances of developing jaundice. This baby is my third child and one of the first two experienced this. I am yet to check from the extended family if there are any known records of history of jaundice in the family. There could be a possible occurrence in the past. But I suppose that if there is the history of jaundice in your family line, then it can affect the children born” (MBNJ 15).

Another participant had this to say:

“I trust it could be a cause because if there is any blood related disease in the family, it could be transferred to the next generation through birth. Blood donated by both parents could improve or affect the health of the child. Blood is quite powerful and could play a leading role in the life span of the child. But personally, no one in my family has experienced such a thing and I haven’t heard of it being something that runs through” (MBNJ 13).

Many mothers attributed early discharge from the hospital as one of the contributing factors to the cause of jaundice. Some of the participants emphasized that they were discharged in less than twenty-four (24) hours by the hospital before they realised that their babies were suffering from jaundice. They further highlighted that they would have received prompt treatment if they had stayed in the hospital beyond the twenty-four (24) hours.

A participant shared her experiences by articulating that:

“I was unfortunate to have been discharged on the same day of delivery from the hospital. Three days after we were discharged, I noticed that my baby’s eyes were becoming yellowish. I informed my mother and she told me to keep him and observe him closely. Sometimes it’s better you stay in the hospital for some time because it would have allowed me to feed the baby well and gotten good advice from the midwives. If I did, I believe my baby would not have suffered the way he did” (MBNJ 12).

One of the participants also added that:

“I personally believe so. I went into labour at dawn and delivered in the afternoon. We were discharge later that evening because they said the ward was congested. I saw the change in skin colour of the baby two days after we were discharged. I went back to the hospital where the doctor opened her eyes and saw that it was yellow. If I delivered him in the house, it would have been a very big deal. The doctor was so nice. Then he gave us a referral letter to come here” (MBNJ 11).

The study suggested that participants also perceived mode of delivery as one of the causes of neonatal jaundice. They iterated that the mode of delivery, particularly the caesarean section could have contributed to the jaundice.

A mother of a jaundiced baby shared her view:

“This child is my first baby and it has not been easy for me at all. Personally, I had a caesarean section and I ended up with my baby getting jaundice. But I am yet to find out from the other mothers who have babies with jaundice, if they also had caesarean section” (MBNJ 9).

A second participant also suggested that:

“Sure, I believe the mode of delivery could contribute to jaundice. With my personal experience, I have noticed that because I went through the caesarean section, that delayed my breastmilk production and so I couldn’t feed my baby and this might have led to the jaundice. He was starving” (MBNJ 7).

Another belief was on the link between ethnic background and the development of

jaundice. the participants did not believe this was a cause.

Respondent MBNJ12 said that:

“I don’t think the ethnicity can be a cause because a lot of people I know from my ethnic group do not have this disease. And the mothers I met of the wards were from different ethnic group”

A second participant added that:

“I strongly doubt it because my friend who is from a different ethnic group had a baby who developed jaundice as well. So I think it cuts across not matter which ethnic group you belong” MBNJ5.

4.4.2 Biomedical Causes of Jaundice

With blood group incompatibility as a cause of neonatal jaundice, the general perception of the participants was based on the notion that if they were bearers of the babies, they would have the same blood group as the babies.

One of the participants shared perception by commenting that:

“This is my first child and I personally know very little about the role of blood groups in the cause of jaundice. My perception of the role of blood is that it could be a probable cause, the doctor who diagnosed my child did not really say anything about blood group incompatibility. Blood group could cause that because may health issues are transmitted through the blood” (MBNJ 16).

A second participant articulated:

“I don’t think the mixing of me and baby’s blood can cause any problem because the baby is mine. Our flesh and blood should be the same so why should the baby be sick because of that? I don’t think that is the cause. but I suppose that blood which is not

compatible could cause such an illness. My child is suffering and I can see it in her eyes. I pray it not blood related” (MBNJ 17)

The study suggested that mothers’ perception was affected by little information about blood incompatibility as a cause of neonatal jaundice.

Infections as a cause of neonatal jaundice:

Participants shared their knowledge on infections as a causal factor in neonatal jaundice. their perceptions were based on previous experience or knowledge shared by the health professionals.

A participant stated that:

“Obviously, infections are a major contributor to jaundice. I know that liver infections could lead to jaundice because my senior sister had jaundice some time back. I did not even know that children could catch jaundice. These infections are difficult to trace when you are not an expert. When my baby started experiencing fever, I thought it was malaria or something normal, until he started appearing yellowish” (MBNJ 3).

A participant further claimed that:

“Infections are my biggest fear and I know that infections contribute to jaundice. No matter how clean the environment is, there is always the probability that the child could catch some infection and this I believe can open the child up for jaundice. I know for sure. My baby’s skin and eyes started appearing yellowish and though I had very little information on jaundice, I knew there was a problem and I was sure it was some sort of infection. (MBNJ 2).

A third participant also added that:

“Yes, infections can contribute to jaundice. My baby was crying all the time and her body was hot so I told the midwife. She later told me the baby had an infection and jaundice so I’m suspecting the infection too might have played a role. There are germs everywhere and because babies are not strong like adults, they easily suffer these dangerous infections” (MBNJ 15).

It was also clear from the experiences shared by the mothers that knowledge of signs and symptoms of neonatal jaundice was poor as they more than often attributed sign and symptoms of malaria until the skin turned yellow or were informed by health professional as having neonatal jaundice. they could not tell the possible source of the infections but did admit infections can cause the jaundice.

For breastfeeding as a cause of neonatal jaundice, the interview data gathered showed a mixed reaction to breastfeeding being a contributing factor to neonatal jaundice. The data showed that some mothers perceived improper or poor breastfeeding could bring about the development of jaundice in the new born baby while others felt the feeding may have caused the jaundice.

A mother said:

“I personally feel that late arrival of breast milk which could be a result of caesarean operation could contribute to jaundice in babies. Breast milk is quite balanced and natural, which means it is need by the child to develop holistically. I was operated and experienced late milk arrival, and I believe that cause the jaundice of my baby. If I had given him some milk, I believe he would have been strong enough to fight against the infection” (MBNJ-23).

Another respondent mentioned:

“I think poor feeding was what actually caused the jaundice as I indicated earlier. If I had started breastfeeding early I’m sure we wouldn’t have been on admission because breast milk has all the right food supplement needed by the baby to resist infections during the first year of birth. Though I knew that babies are very vulnerable especially immediately after birth, because I was operated, the milk seem to have delayed” (MBNJ 22).

A third responded mentioned:

“I think the breast milk caused it. I was told eating of mangoes during pregnancy can cause jaundice, which I consumed a lot when I was pregnant. If I knew I wouldn’t have eaten it. They have to teach us which practices we should avoid during pregnancy at the antenatal clinics otherwise a lot of mothers will have this problem. I haven’t found out from people if they experienced the same thing” MBNJ 7

The data presented from the in-depth interviews highlighted that late and improper breast feeding of babies could contribute to neonatal jaundice, whilst breastfeeding too was seen as a cause.

4.5 Health-seeking behaviour paths of mothers of children with neonatal jaundice

Several pathways emerged from the in-depth interview with nursing mothers of jaundiced babies regarding their health-seeking behaviour patterns. These behaviours affected the path way of the mothers. These pathways were however affected by some sociocultural factors

which included reliance on partner, family's financial disposition, support for child care and household duties.

4.5.1 Pathways to Seeking Health Care

Mothers of the jaundiced babies considered the hospital care to be the best form of health care available for this condition than the traditional treatment.

One mother said that:

"I personally prefer scientific methods to traditional beliefs. The hospital is the best place for treatment. They have a lot of equipment to use in treatment. And most of the staff are well experienced than those other services. My baby was put in a machine that produces blue light to treat the jaundice and I believe it not a common machine. Most of the traditional healers do try and error" (MBNJ 4)

Another participant recounted that:

"As for my children I always send them to the hospital. I lost one of my babies some years back through herbal treatment. The woman gave me a suppository drug to give to my baby whose abdomen became distended and my baby later passed on. It was a bad experience. I trust the hospitals. Even with the hospital, I prefer a seasoned one not any new medical institution" (MBNJ 24)

The main reservations on the use of these sources were the lack of trust in the competencies of some of the pharmacies as reported below.

A participant shared her experience:

"I have my own reservations about the use of pharmacies. Most of them are not licensed and if you don't take care, they will complicate your situation for you. I prefer going to a medical professional in a hospital for treatment than seeking the assistance of a pharmacist. They are supposed to mix medicines not diagnose diseases" (MBNJ 7)

A second respondent said:

"I have never bought medication from the pharmacy or drug store to treat my baby before unless directed by a doctor or midwife. People suggest all sorts of drugs sometimes but I don't listen to them" (MBNJ 11)

Similar observations were made with the use of traditional healers. This group of healers were perceived to use medications that were not potent and they were also unable to give the right dosages. The fear of traditional healers using their smaller gods for treatment also deterred mothers from using them.

Participant MBNJ 14 accounted that:

“I never seek treatment from those people. I don’t even know where to find some. Am afraid of their services. They don’t measure, they don’t have any standard at all, they just practice try and error and they will use you as a test”.

Another participant supported this by adding that:

“I don’t believe in the potency of their treatment. Though people testify of the potency to heal, I am yet to personally see for myself how well their medications work. Because I am a Christian, I also don’t want to be polluted with their gods and as such, I don’t patronise them at all. We’ve heard people’s narrations on how these so-called healers take advantage of innocent people just because they thought they could assist them” (MBNJ 18).

Again, another participant commented:

“I believe they also inculcate the worship of the traditional gods and that even makes it more dangerous to consult them. Hospitals are safer and even cheaper with the National Health Insurance Scheme subscription” (MBNJ 19)

4.5.2 Sociocultural Factors Affecting Decision-Making Pattern On Seeking Care for Babies.

From the interviews, many of the respondents mentioned that their choice of care was affected by the supportive role of their partners.

One mother said:

“Once the doctor told us about the condition my husband was fine with the admission to the paediatric ward. He is the bread winner of the family, I am unemployed but he is always willing to sacrifice for me and the baby to go to the hospital when needed. I rely on my husband financially and since we have only one child, he really supports me. Normally when he can make it, he comes with me to the hospital and I understand the constraints he goes through so I am not bothered” (MBNJ 6)

Another participant added:

“Though I need my husband’s support most of the time, I don’t always get it. This is because he works but I am unemployed. Fortunately, when I noticed the jaundice he was at home and agreed that we send the baby to the hospital. Because of the nature of the baby’s condition he brought us to the hospital himself. He wanted to make sure we were safe. I rely on him, and also understand him when he is not able to support us” (MBNJ 7)

The data also showed that most mothers were financially constrained. The participants emphasized that the financial challenges span mainly from the fact that the National Health Insurance Scheme does not cover most of the hospital expenses.

According to one mother:

“Things are tough for us but we can’t complain. There is no money but we still had to try and take the baby to the hospital for treatment. The National Health Insurance Scheme does not cover all the medicines so we have to pay for some of them. Coming here was my only option of making sure that my baby is well taken care of” (MBNJ 24).

Another participant mentioned that:

“Both of us are working by the grace of God, so we are able to combine our resources to cater for the family. Despite that, we still have challenges with hospital bills. We were worried about the cost of treatment but hoping NHIS covers most of it” (MBNJ 19)

The data revealed that many of the mothers receive support from family and friends, and so had no difficulty in taking their babies to the hospital.

Some participant shared her experience by commenting:

“My husband is very helpful. He washes and cleans the baby, he boils water for me and is always ready to assist because of my operation. He sometimes stays with the baby whilst I take my bath or get some rest. As a result, seeking medical care was not difficult because he came with me, after the operation. I have not been so strong like I used to be so he carries the baby when we go outside. He is my chief support even though occasionally my little sister comes around” (MBNJ 18).

Participant MBNJ16 also said:

“My husband lives very far away so my mother and sister who have with me. I knew they will be supportive so I wasn’t bothered where we were sent to. My mother and sister feed and clean the baby from time to time whilst I rest. My husband also calls sometimes to check on us. This enabled me to quickly seek for medical care when the child developed the jaundice. Without my family assisting me, it would have been difficult for me”

4.6 Practices Mothers Engage in Managing and Treating their Jaundiced Babies

Mothers’ reported practices such as self-treatment with modern medications, with fruits locally prepared and traditional healing for illnesses as ways that one could treat an illness.

Some mothers reported that even though they resorted to self-treatment as a practice to treat

themselves when they are ill in the case of the jaundice they did not resort to self-medication because of poor knowledge of what the condition was and also because they did not want to risk the lives of their babies.

One participant gave her experience:

“I have personally used some before but not for my baby. The baby is very delicate and I can’t complicate his life. Besides I had never witnessed jaundice before and that made me afraid to self-medicated. I brought him to the hospital immediately I noticed it” (MBNJ9).

Another respondent also stated that:

“Self-treatment is risky so I have never practiced that and will definitely not use that on my baby. There are lots of them in our markets but they have so many unknown side effects. My neighbour uses it but I have no intention of trying it” (MBNJ 19)

Some mothers however followed the advice of family and attempted treating the children with jaundice with locally prepared fruits or laying the child in the sun as reported below.

A participant remarked:

“My mother told me that some fruits and vegetables before feeding the baby could help with the jaundice condition but I didn’t want to believe her. I later tried it and it didn’t help. Sometimes following cultural practices as a mode of treatment can be risky. I later decided to bring my baby to the hospital. If this doesn’t work, then I will think of alternative treatments or hospital” (MBNJ 4)

Another participant said:

“My senior sister advised me that I should put my baby under the sun for some time, I felt it was risky but I tried it for a whole day and the baby cried that whole night. They told me it works but it did not work for me. People also said it was a curse and that I should bath him with salt but it all didn’t work so I brought him to the hospital” (MBNJ 5)

Some mothers decided to wait and observe the severity of the jaundice before reporting to the hospital.

One of them had this to say:

“I wanted to observe the child in the house for some time to see if the condition would improve but it didn’t. I later realised that it was getting worse and that prompted me and my husband to bring her to the hospital. We wasted time thinking it will improve. It was a risk we took and if not for God on our side, we would have lost our baby” (MBNJ 7)

Respondent MBNJ13 said:

“I was observing to see if the yellowish discoloration of the eyes will disappear but it didn't. I also realized she wasn't feeding well so it prompted my husband and I to take her to the hospital. We wasted time thinking it will disappear on its own”

4.7 Summary of Findings

The following emerged as findings from the study:

1. Mothers have poor knowledge about the signs and symptoms of neonatal jaundice.
2. Mothers however know the jaundiced babies have to be sent to the hospital and that neonatal jaundice is treatable.
3. The mothers indicated that neonatal jaundice might be hereditary. Early discharge from the hospital and caesarean sections, as a mode of delivery, were both considered contributory causes of jaundice. Blood group incompatibility was seen as a non-contributing factor. Infections were also considered a major cause of neonatal jaundice.
4. The severity of their baby's condition affected their prompt reporting to the hospital.
5. Many of the respondents report directly to the hospital for care because the hospitals have trained personnel with experience and their services are less expensive, particularly the government hospitals. They did not seek the services of pharmacies/drug shops nor that of herbal or traditional healers.
6. Socio-cultural and economic factors affect health-seeking pathway. The willingness of partners to support care seeking at hospitals. The financial disposition also dictates the choice of health service the family decides on.
7. Participants did not patronise the pharmacy/drug store and herbal healers as first aid intervention for the babies before visiting the health facility.
8. Mothers engaged in cultural practices like exposure of babies to sunlight as a treatment method.

CHAPTER FIVE

5.0 DISCUSSION

5.1 Introduction

This chapter, discusses the findings of the study in relation to the objectives. It aims at discussing the health-seeking behaviour of mothers of babies with neonatal jaundice in the Winneba community.

This study reveals that mothers have little knowledge about jaundice and its signs and symptoms. The little knowledge was observed to emanate from their own experiences with their jaundiced babies at the time of study, information given them at the point of diagnosis and their experiences on the wards. Poor knowledge of neonatal jaundice may affect the actions of mothers in identifying neonatal jaundice and cause a delay in seeking medical attention, according to a study done in China (Zhang et al, 2015).

The delay to seek care immediately was further observed in this study to be due to poor knowledge as mothers observed for a few days before then seeking care. This is in conformity with literature. Khalesi & Rahkshani (2008) conducted a study in Iran on the knowledge, attitude and behaviour of 400 mothers on neonatal jaundice in a hospital in a relatively large area. Khalesi & Rahkshani (2008) found that although the mothers had overall adequate knowledge about when to know a baby is unwell, they did not know much about the causes, complications, and prevention of the jaundice that will help them know steps to take in managing the condition.

5.2 Beliefs and Perceptions of the Causes of Neonatal Jaundice among Mothers

This section looks at the perceptions and beliefs held by mothers with regards to neonatal jaundice. In an attempt to investigate this the researcher enquired several information from the respondents. Some of the beliefs and perceptions examined included spiritual attacks, ethnic background and family history of jaundice being possible causes of the disease as

well as their knowledge of it.

Mothers in this study have perceptions that supernatural/spiritual attacks could lead to the development of jaundice in their respective babies. The existence of various religions and denominations in Ghana could explain this situation. Even though most of them believed in the existence of the supernatural/spirits, they could not directly attribute it to the cause of the jaundice in their babies. One mother accused the “devil” of being the one responsible for all unfortunate occurrences. This relates to Moreno & Cardemil (2013) study among American’s, which revealed that most people, regardless of social status, believe in the existence and power of the supernatural thus rely on spiritual healers as the answer to their health problems. These people seek hospital treatment only as a last resort especially when the patient’s condition has worsened and consequently become more difficult to treat. This is based on their belief that their medical conditions are spiritual (Moreno & Cardemil, 2013). Abdullai (2011) indicates that many Africans believe in the supernatural causing disease conditions and prefer their services to orthodox medicine.

The mothers in this study believe family history of jaundice could mean it is hereditary. Mothers who did not have family history of neonatal jaundice also ascribed to this notion and added that some relatives may have had it and gone unnoticed or died being it was even diagnosed. They did not know that there are hereditary conditions that predisposes one to neonatal jaundice rather than neonatal jaundice being directly hereditary. Hemmati & Inaloo (2013) also found that most of the neonates with severe hyperbilirubinemia had previously-born siblings with the condition in a study conducted in Fars Province at the South of Iran. Even though the risk is higher when there is a family history of jaundice, it is not hereditary. There are certain hereditary conditions that predispose neonates to jaundice like Gilbert syndrome (Memon et al., 2016).

Early discharge from the hospital (less than 24 hours) is seen also as contributing to the late

detection of neonatal jaundice and to the severity of the condition. This again shows the lack of understanding of the causes of jaundice. Indeed, jaundice that often appears within 24-72 hours of life (Mishra et al., 2007) is physiological jaundice whilst that of pathological jaundice, caused by factors like blood group incompatibility, often appears in less than 24 hours (Bhutani et al., 1999). Dehghani & Efazati (2015) conducted a study in Iran which indicated that mothers perceived early discharged from the hospital as one of the major contributing factors to neonatal jaundice. This is in tandem with the outcome of this study. So even though the idea of late discharge (after 24 hours) increases the chances of the jaundice being picked up early in the hospital and treated to avoid related complications, the mothers did not understand the actual reason behind the need not to discharge in less than 24 hours. Boskabadi et al. (2011), in their study in Iran, posited that mothers are sometimes discharged early from the hospitals and this leads to late detection and management of the neonatal jaundice.

Some mothers expressed the view that the jaundice may have been directly caused by the caesarean section or by the delay in feeding the baby due to the surgery. According to some of them, the delay in feeding due to the caesarean section led to the babies' development of the jaundice, unlike mothers who were seen feeding earlier after vaginal delivery. Others were unsure of the role of the mode of delivery in the development of the jaundice. Hemmati & Inaloo (2013) again revealed in a study done in Southern Iran that babies born via normal vaginal delivery were at a higher risk of developing neonatal jaundice than those who had caesarean section, what was found in this study. This study reveals that many of the mothers were of the belief that the mode of delivery is a potential contributing factor to neonatal jaundice, particularly caesarean section. This study's findings contradict Hemmati & Inaloo's observation. The delay in feeding due to the caesarean section was seen as what led to the babies' development of the jaundice, unlike mothers who were seen feeding earlier

after vaginal delivery. These findings may have been informed by the low level of knowledge of the causes of neonatal jaundice.

Biomedical causes of jaundice are scientifically proven and documented causes of jaundice including infections, blood group, rhesus incompatibility and haemolytic diseases.

The study further discovers that mothers did not perceive blood group incompatibility as a cause. This is based on the misconception that mothers have the same blood group as their babies. The study carried out by Badiie (2007) in Iran, showed that the most common cause of Exchange Blood Transfusion in the hospital is blood group incompatibility, which accounted for close to 22.1 percent of new-born babies but in this qualitative study mothers' knowledge of blood group incompatibility was poor and thus affected their understanding of it as a cause of neonatal jaundice.

The thesis revealed that infections were considered a cause of neonatal jaundice. Mothers emphasise that infections could lead to many complications and hence lead to neonatal jaundice. Onyearugha et al. (2011) found in their study in Nigeria that the leading aetiological factor of neonatal jaundice is septicaemia at 32.5 percent. The study found that intrauterine infections may lead to neonatal jaundice anytime during the neonatal period.

5.3 Health-seeking behaviour path mothers take in managing neonatal jaundice

Some socio-cultural factors affect the pathways taken by mothers in seeking treatment for their babies. These factors are norms in the society that are adhered to. The mothers in this study preferred services of hospitals for treating neonatal jaundice. Some of the paths considered included hospital, traditional healers and pharmacies or drug shops.

The mothers in this study preferred the services of hospitals for treating neonatal jaundice. The choice of hospital care is due to trust in the ability of government hospital staff to manage jaundice than in self-treatment and traditional medicines. Goldman & Heuveline (2000) found mothers were more willing to seek medical care for jaundice and diarrheal

conditions than other conditions in a study carried out in Guatemala. A research in Kanu, Nigerian, discovered that most caretakers had less knowledge of jaundice in their infants, but would seek the services of a hospital for any disease condition that is contracted by her child (Egube et al., 2013). This study also found that most of the guardians sought care at the hospital for the neonates who developed jaundice.

In this study some mothers reported visiting pharmacies or drug shops as first aid intervention for themselves, but not their babies. They rather sent their ill babies for professional medical care in the hospital. A research in Uganda found most patients attend health facilities and report to pharmacies/drug shops, whilst self-treatment with local herbs and traditional healers are done by few patients (Musoke et al., 2014). Le et al. (2014) in their study in northern Vietnam indicated that the use of unconventional treatment, some cultural practices and low maternal knowledge might impede detection or care seeking for jaundice cases.

The mothers in my study did not patronise the services of traditional healers because they perceived their practices and medications as not efficacious and do more harm than good. Many mothers who hold these perceptions of traditional healers were Christians who do not believe these traditional healers. Many mothers have formal education and this also affected the personal preferences for hospital care. Boskabadi et al. (2011) in a study in Iran found that infants were given these remedies which were found to have a higher incidence of complications due to hyperbilirubinemia. Musoke et al. (2014) found that few patients patronise the services of of traditional healers in his study in Uganda.

5.3.2 Socio-Cultural Factors affecting health-seeking paths

Studies have uncovered that care-seeking is a complicated process strongly affected by health beliefs and that various types of barriers to the requisite health-seeking exist (Addai, 2000).

This study reveals that the health-seeking behaviour pathway of the participants are affected by the support they receive from their partners. The mothers rely on their partners to help

them in taking final decisions to seek healthcare and consensus is also reached with partner before care for the neonate with jaundice is sought. The respondents generally commended their partners on how they look out for the well being of the babies and their efforts during their stay in the hospital. This is in contrast to Bedri (2001) who conducted a study in Sudan that highlighted the challenges mothers in low income countries face. She explained these women depend on their partners who are heads of the household to secure access to medical care, both practically and financially before any move is made. Few mothers iterated that they were unemployed and rely on their partner for financial support.

According to the Health Reform Foundation of Nigeria (HERFON) Annual Review, health seekers in many developing nations, tend to seek health care based on the resources available to the family. It emerges from this study that the financial disposition of the participants' household affects their health seeking behaviour pathways in relation to their jaundiced babies. A study in a district of Kampala, Uganda, provided comprehensive outline of 'elements of livelihood' which are likely to affect the capacity of women to access medical care: potential money earnings, actual money earnings, social life and status, liability, social networks and autonomy (Wallman & Baker, 1996). They argued that this will come into existence after a mother has considered how caring, how good, how embarrassing, how confidential, how feasible and how appropriate her available options are, within the physical setup of that location. There was an association between household income and health seeking behaviour in a study done in Nairobi, Kenya (Taffa & Chepngeno, 2005). The respondents in this study admitted the challenges with finances and how it affects their choice of care. They emphasized that even though they have difficulties in paying the hospital bills, they still were able to pay part of the bills whilst some relied on the National Health Insurance Scheme to cover some of the expenses.

Mothers may need a larger support network to cater for their children and/or the household

duties that need to be taken care of whilst they travel long distances in search of medical care, which often comes with long hours of waiting at the health facilities (Bedri, 2001; Manhart et al., 2000). This is in line with this study's findings which suggest that the chances of a mother receiving support for child care and household chores affects their health seeking behaviour pathways. Mothers in this study receive support for domestic duties from close relations such as mothers, siblings and spouses and this allows them to have time to seek hospital care. They admitted that if these support systems were unavailable they would have found it difficult to visit the hospital.

5.4 Practices of mothers in managing and treating neonatal jaundice

This study shows that mothers did not use local herbs as treatment for the babies with neonatal jaundice as they considered doing that put the babies at risk. They preferred seeking professional assistance from the hospital. This was based on the quality of health care ascribed to hospitals. Similarly, a research by Musoke et al. (2014) revealed that majority of patients report to health facilities and pharmacies/drug shops, while self-treatment with local herbs and the services of the traditional healers are sought by few patients. In contrast, Senah (2001) remarked many Ghanaians use herbal medicines despite the development in modern health care.

It emerged from this study that mothers also undertook certain cultural practices, such as exposing the babies to sunlight which is believed to treat neonatal jaundice but later found them ineffective. This further delayed the time taken to report to the hospital for treatment, thus increasing the risk of jaundice-associated complications in the babies. According to Moawad et al. (2016), in Egyptian mothers, delay to the hospital is caused by the belief that alternative health practices improves neonatal jaundice, but effects can be harmful. Le et al. (2014) iterates that caregivers indulge in certain cultural practices that delay the time of detection of neonatal jaundice.

This study found that after the mothers notice the jaundice, they often observe till the condition becomes severe before taking any treatment action. In this study however many mothers did not do anything during the waiting period but sought hospital care on noticing the condition became severe. These decisions could potentially worsen the brain injury caused by the hyperbilirubinemia. In a study by Addai (2000) in rural Ghana on care-seeking behaviour, the study identified clinical symptoms as an obstruction to people's care-seeking behaviours. When caregivers are able to pick up such symptoms they are more likely to seek help instead of waiting until the disease completely degenerates. Again, this is an indication of the lack of discernment from the mothers on neonatal jaundice and the need to address such lapses. Taffa et al. (2005) in their remark, said perception of severity of the disease is associated with health seeking behaviour, such that caregivers wait until the disease worsens before seeking health care.

5.4 Limitations of the Study

One of the limitations of a case study, is that it focuses on experiences that are unique to the individuals and to their setting; i.e. Mothers with babies diagnosed of neonatal jaundice on admission. Therefore, findings cannot be generalized to a larger population, nor can the findings be used as the basis for theoretical constructs for policy decisions. This is because the findings of the research are not tested to discover whether they are statistically significant or due to chance. The use of a purposive sample also limits generalizability of this study of the larger population of mothers with babies diagnosed of neonatal jaundice on admission at the Trauma and Specialist Hospital Winneba.

The focal aim of the study was to bring to bear, health-seeking behaviours of mothers of babies with neonatal jaundice in the Winneba community. Denscombe (2007) asserts that, there is the possibility for readers to transfer the outcomes to their individual contexts, if they identify commonalities between their contexts and that of this particular study. The

ambiguities, which are inherent in human language, can also affect the analysis and interpretation of the participant's experiences which can affect the findings of the study.

In spite of all these limitations, the insight of the study can be used to reduce the barriers which delay mothers and caregivers from reporting to the hospital early. The case study design was deemed the most appropriate research design to study the health-seeking behaviours of mothers of babies with neonatal jaundice in the Winneba community. It provided the avenue to gather data to answer the stated research questions of the study.

CHAPTER SIX

6.0 CONCLUSIONS AND RECOMMENDATION

6.1 Introduction

This final chapter, comprises the conclusions drawn and also makes recommendations of the study that may lead to policy formulation and implementation.

6.2 Conclusions

The following conclusions were drawn based on the findings:

1. Mothers of babies with neonatal jaundice report causes of neonatal jaundice as family history of neonatal jaundice, early discharge from the hospital, mode of delivery (caesarean section) and infections. Mothers' poor knowledge of the signs and symptoms of neonatal jaundice delayed immediate care seeking.
2. Participants' health-seeking behaviour pathways were predominantly to hospitals. Hospital treatment was the choice because it is more convenient, efficacious, standardised and more accessible with well-equipped facilities and experienced personnel. Partners involvement in decision to seek care and family, social and financial support affect decision to seek care.
3. Mothers practice sunlight exposure as a form of treatment for neonatal jaundice.

6.3 Recommendations

The following recommendations are made in treating and managing neonatal jaundice:

1. Trauma and Specialist Hospital Management in collaboration with the Regional and Effutu Municipal Health Directorate organise frequent outreach programmes on neonatal jaundice in communities in the municipality to improve the knowledge in neonatal jaundice and to deepen their understanding of the need to report promptly to avoid the complications associated with neonatal jaundice.

2. The Trauma and Specialist Hospital Management in collaboration with the Municipal and Regional Health Directorate, should intensify education on the identification of symptoms and signs of jaundice before mothers are discharged post delivery and also at postnatal care and antenatal care especially the third trimester pregnant women.
3. A national policy such as ‘no discharge from the hospital in less than 24 hours post delivery irrespective of the mode’ should be formulated and fully implemented. This will improve early detection and management of neonatal jaundice.
4. A national campaign must be rolled out to educate the public on the complications associated with neonatal jaundice since they tend to influence decisions made by these mothers. The awareness creation will help them better inform the mothers and caregivers to seek care in the hospital.

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APPENDIX A: INTERVIEW GUIDE PROTOCOL

UNIVERSITY OF GHANA

COLLEGE OF HEALTH SCIENCES

SCHOOL OF PUBLIC HEALTH

Thank you for agreeing to participate in this study. This interview will gather data about the health-seeking behaviours of mothers of babies with neonatal jaundice in the Winneba community. This one-hour interview consists of a set of questions that will ask you to reflect, recall, and share your experiences. At any time during the interview, you may feel free to ask for clarification where necessary. On occasions, I may ask related follow up questions to the original scripted questions to gather more information from you about your reflections and recollections.

Demographic Information

1. How old are you?
2. What is your marital status?
3. How many children do you have?
4. What is your education level?
5. Are you currently working?
6. What is your profession?

Perceptions and beliefs of Mothers of the Causes of Neonatal Jaundice

- a. What is your thought on supernatural/spiritual attack being a cause?
- b. What is your thought on the possibility of a family member born with the same condition being the cause?
- c. What is your take on early discharge from the hospital being a cause?
- d. Do you think the mode of delivery could have led to the neonatal jaundice?

- e. How do you think similar ethnic background could contribute to a baby developing jaundice?
- f. Do you consider blood group incompatibility as a possible cause?
- g. How do you think infections can lead to the development of neonatal jaundice?
- h. What is your take on breastfeeding being a possible cause of neonatal jaundice?
- i. Any other suggestions

Health Seeking Behaviour Paths in Managing Neonatal Jaundice

- a. Did you consider direct hospital visits? Why?
- b. Did you patronise the services of pharmacies?
- c. Did you consult traditional healers as a treatment method and why?
- d. Does reliance on partner to secure access to medical treatment come into consideration?
- e. How does the family's financial disposition affect your decisions?
- f. How does the existence of support for child care and household duties affect your decisions?
- g. Any other suggestions.....

Practices in Managing and Treating Children with Neonatal Jaundice

- a. Did you engage in home treatment with local herbs mediations?
- b. Does the severity of the sickness affect your decision?
- c. Do you implement certain cultural practices you observe as a treatment method and how do you go about it?
- d. With your knowledge in neonatal jaundice, how do you apply that in treatment?
- e. Any other suggestions.....

APPENDIX B: PARTICIPANT INFORMATION SHEET

UNIVERSITY OF GHANA

COLLEGE OF HEALTH SCIENCES

SCHOOL OF PUBLIC HEALTH

Project Title:

Health-Seeking Behavior of Mothers of Babies with Neonatal Jaundice in the Winneba Community.

Name, address and contact of Principal Investigator:

Dr. Adolph Eli Garfo, Department of Health Policy Planning and Management in the School of Public Health, University of Ghana, Legon, Accra or Trauma and Specialist Hospital, Winneba.

Mobile: +233243421743

Email address: adolphgarfo@yahoo.com

Introduction:

I am a student from the School of Public Health, University of Ghana, Legon, pursuing a Master of Public Health Degree Program. I am here to conduct a research on the health-seeking behavior of mothers of babies with neonatal jaundice in the Winneba community. This is purely for academic purposes and forms part of the requirement for the award of Master of Public Health Degree.

Procedure:

The study participants will be mothers of babies with neonatal jaundice on admission in the Trauma and Specialist Hospital. They will be selected using purposive sampling technique. The study will involve in-depth interviews using an interview guide concerning their health-seeking behavior after they noticed their babies were jaundiced. The information gathered

will bring forth the activities taken by these mothers in their quest to get treatment for their babies.

Benefits and Risks:

Twenty Ghana Cedis worth of phone credit will be given to mothers who participate in the study. Some of the questions that will be asked may be discomfoting and sensitive but will be helpful for the study by unveiling paths that mothers take in seeking treatment for their jaundiced babies in Winneba. This will inform policy reforms to improve easy access to adequate health care. I am always available to assist with any questions.

Confidentiality:

No name will be recorded. Your name and identity are not needed in the study. However, the information you are going to provide will be coded and will be treated strictly confidential. You are assured of total confidentiality to the information you provide. Apart from the researcher, no one else will have access to information provided whether in part or whole. Data collected will be stored under lock and key then destroyed after a minimum of three years as per research protocol.

Right to refuse:

Participation in this study is voluntary. You are free to answer part or fully partake in the interview. You can choose to withdraw from the study or stop the interview at any time you want. You can also choose not to answer any question(s) you find uncomfortable with. Should you choose not to participate, it will not affect you or the level of care provided in the health facility in any way. However, you are encouraged to participate fully in this study to help improve early and easy access to quality health care by neonatal jaundiced babies in Winneba, Ghana and beyond.

Dissemination of results:

Findings and recommendations would be available at the School of Public Health and it will also be disseminated through a meeting with different stakeholders at the end of the study.

Before Taking Consent:

Do you have any questions you wish to ask about the study? Yes/No

If yes, please indicate the questions below

.....
.....
.....

If you have any question(s) or further clarification concerning this study and/or the conduct of the researcher, please do not hesitate to contact the following; Dr. Patricia Akweango, School of Public Health, University of Ghana, Legon, akweongo@gmail.com Tel: +233243138376; Dr. Reuben Esena, School of Public Health, University of Ghana, Legon, rkesena@outlook.com Tel: 0277220276 and; Mrs. Hannah Frimpong (Administrator), Ghana Health Service Ethical Review Committee Secretariat, Accra. Tel: 0507041223/0243235225

APPENDIX V: INFORMED CONSENT

UNIVERSITY OF GHANA

COLLEGE OF HEALTH SCIENCES

SCHOOL OF PUBLIC HEALTH

Project Title: Health-seeking behaviours of mothers of babies with neonatal jaundice in the Winneba community

Investigator: Adolph Eli Garfo

I will like to invite you to participate in a research study being conducted to assess the health-seeking behaviour of mothers of babies with neonatal jaundice in Winneba. The purpose of this research work is to explore the perceptions of mothers of the causes of neonatal jaundice, health seeking behaviour paths of mothers and the practices in managing and treating children with neonatal jaundice.

If you agree to participate in this study, your involvement will include a one-hour interview. I will also contact you for a brief, (20-minute follow-up interview) to seek clarification on questions or issues you raised during your interview. This follow-up will occur 2-4 weeks following the interview. I will arrange a time convenient with your personal schedule and I will send a reminder before a scheduled meeting.

After obtaining your consent to participate, the interview will include open-ended questions on perceptions of mothers of the causes of neonatal jaundice, health seeking behaviour paths of mothers and the practices in managing and treating children with neonatal jaundice. The interview will take place at the time of discharge and at a designated office at Trauma and Specialist Hospital, Winneba or any location of convenience to you.

There are no foreseeable risks associated with participating in this study. You are free to skip any questions that you do not feel comfortable to answer, or withdraw from the study at any time if you feel uncomfortable.

I will make an audio recording of the interview session. I will use this audio recording to transcribe our conversation and analyse the data contained therein. The audio tape will be handled only by me, the primary researcher. Audio recordings will be stored in a secure computer when the transcription process is complete.

To help protect your confidentiality, I will not ask questions outside the realm of the stated objectives of the topic. I will not ask personal questions, nor will I ask you to reveal any information of a personal nature. I will omit your name and other identifying information from the interview transcript. If I write a report or article about this study or share the study data set with others, I will do so in a way that you cannot be directly identified. All interview notes, audiotapes, and transcripts will be handled only by the primary researcher.

Taking part in this research study is completely voluntary. If you do not wish to participate in this study now or at any time during the study, please inform me to decline participation or by telling me during or after the interview that you no longer wish to participate.

Thank you very much for your consideration of this research study.

Participant's Pseudo Name	Signature	Date	Contact
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Investigator's Name	Signature	Date	Contact
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GHANA HEALTH SERVICE ETHICS REVIEW COMMITTEE

In case of reply the number and date of this Letter should be quoted.



Research & Development Division
Ghana Health Service
P. O. Box MB 190
Accra
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Fax + 233-302-685424
Email: ghserc@gmail.com
4th May, 2018

My Ref. GHS/RDD/ERC/Admin/App 114/172
Your Ref. No.

Adolph Eli Garfo
University of Ghana
School of Public Health
Legon, Accra

The Ghana Health Service Ethics Review Committee has reviewed and given approval for the implementation of your Study Protocol.

GHS-ERC Number	GHS-ERC057/02/18
Project Title	Health-Seeking Behaviours of Mothers of Babies with Neonatal Jaundice in the Winneba Community
Approval Date	4 th May, 2018
Expiry Date	3 rd May, 2019
GHS-ERC Decision	Approved

This approval requires the following from the Principal Investigator

- Submission of yearly progress report of the study to the Ethics Review Committee (ERC)
- Renewal of ethical approval if the study lasts for more than 12 months,
- Reporting of all serious adverse events related to this study to the ERC within three days verbally and seven days in writing.
- Submission of a final report **after completion** of the study
- Informing ERC if study cannot be implemented or is discontinued and reasons why
- Informing the ERC and your sponsor (where applicable) before any publication of the research findings.

Please note that any modification of the study without ERC approval of the amendment is invalid.

The ERC may observe or cause to be observed procedures and records of the study during and after implementation.

Kindly quote the protocol identification number in all future correspondence in relation to this approved protocol

SIGNED.....
DR. CYNTHIA BANNERMAN
(GHS-ERC CHAIRPERSON)

Cc: The Director, Research & Development Division, Ghana Health Service, Accra