UNIVERSIRTY OF CAPE COAST

SOCIO-CULTURAL FACTORS INFLUENCING MALNUTRITION AMONG CHILDREN UNDER-FIVE YEARS IN THE CAPE COAST METROPOLIS

JUDITH ARHIN

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BY

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DECLARATIONS

Candidates' Declaration

I hereby declare that this thesis is the result of my own original research and that no part of it has been presented for another degree in this university or elsewhere.

Candidate's Signature……Date……

Name: Judith Arhin

Supervisor's Declaration

I hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines on supervision of thesis laid down by the University of Cape Coast.

Principal Supervisor's Signature…….....Date……

Name: Prof. Akwasi Kumi-Kyereme

Co-Supervisor's Signature……....Date……

Name: Dr. Kobina Esia-Donkoh

ABSTRACT

The study sought to explore how socio-cultural factors influence malnutrition among children under-five in the Cape Coast Metropolis. Specifically, the study sought to: describe social factors influencing malnutrition among children under-five years old in the Cape Coast Metropolis, discuss cultural beliefs influencing malnutrition among children less than five years old in the Cape Coast Metropolis and analyse feeding practices influencing malnutrition among children under-five years in the Cape Coast Metropolis. The study employed a qualitative approach. Guided by the Ecosystem model of nutrition, 18 mothers were purposively selected and interviewed. The results were presented with text and quotations. The results showed that the social factors affecting malutrition among children under-five are low edcucational level, non-supporting spouses, occupation and large family size. The cultural factors influencing malnutrition among children under-five include food taboos and poor feeding practices. It is therefore recommended that there should be intensification of child health education by community health nurses on the causes of malnutrition among children under-five and the Cape Coast Metropolitan Health Directorate should intensify public education on the need to send children to health facilities but not prayer camps when they are malnourished.

KEY WORDS

Malnutrition

Under-five

Under weight

Socio-cultural

Cape Coast Metropolis

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DEDICATION

To my father, mother and siblings

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CHAPTER ONE

INTRODUCTION

Background to the Study

Malnutrition among children under-five is a major public health concern especially in the developing world (Asfaw, Wondaferash, Taha & Dube, 2015; Glewwe & Miguel, 2015). In the year 2016, globally, 52 million children under-five years were wasted and 17 million were severely wasted. This translates into a prevalence of 7.7 percent of children wasted and 2.5 percent stunted. In terms of regional differences, in Africa, 59 million children under-five are stunted, 10 million are overweight and 14 million are wasted. In Asia, 87 million are stunted, 20 million overweight and 36 million wasted while in Latin America and the Caribbean 6 million are stunted, 4 million overweight and 1 million wasted. In Oceania, 0.5 million are stunted, 0.1 million overweight and 0.1 million wasted (World Health Organisation [WHO], 2016). Each year, the global under-five mortality rate is 8 to 11 million children (Singer, Ansett & Sagoe-Moses, 2011). More than thirty five percent of these deaths are attributed to undernutrition (Black et al., 2008). Stunting (low height-for-age) It is defined as proportion of children under-5 years of age whose height-for-age is below minus 2 standard deviation from the median height-for-age of the reference population of WHO Child Growth Standards while Wasting (weight for height) < –2 SD of the WHO Child Growth Standards median (WHO, 2018).

Undernutrition among children is a critical problem because its effects are long-lasting and go beyond childhood. It has both short and long-term consequences (Abuya, Ciera & Kimani-Murage, 2012). For instance, undernourished, compared to non-undernourished children, are physically,

emotionally and intellectually less productive and suffer more from chronic illnesses and disabilities (Jesmin, Yamamoto, Malik & Haque, 2011). Malnutrition is the leading cause of death in children below age five in developing countries, including those in sub-Saharan Africa, Asia and Latin America (Abera, Dejene & Laelago, 2017).

According to the WHO (2016), malnutrition refers to undernutrition resulting from inadequate consumption, poor absorption or excessive loss of nutrients, but the term can also encompass over-nutrition. Underweight, based on weight for-age, is a composite measure of stunting and wasting and is recommended as the indicator to assess changes in the magnitude of malnutrition over time. Wasting represents a recent failure to receive adequate nutrition and may be affected by recent episodes of diarrhoea and other acute illnesses. Wasting indicates current or acute malnutrition resulting from failure to gain weight or actual weight loss.

Malnutrition develops in children whose consumption of protein and energy are insufficient to satisfy their body's nutritional needs. Malnutrition may also occur in children who are unable to absorb vital nutrients or convert them to energy essential for healthy tissue formation and organ function (Awatef, Elkady, Hussein, & Abdrbou, 2011). Available research indicates that factors such as family size, parental educational level and occupation, infants and young feeding practices, age and gender of the child grossly affect childhood nutrition (Maia et al., 2008; Van de Poel et al., 2007). Besides, worldwide efforts are being made to reduce malnutrition prevalence by 2030 and end all forms of malnutrition, including achieving by 2025 the

internationally agreed targets of getting less than 5 percent of world children to be malnourished (United Nations Children's Fund [UNICEF], 2018).

Child malnutrition impacts cognitive function and contributes to poverty through impeding individuals' ability to lead productive lives (Allen et al., 2008). Children less than five years are known to be vulnerable and susceptible in many respects, especially on matters of health. Nutritional deficiencies and malnutrition generally affect children more than any other group.

It was found from Redmer, Wallace and Reynolds' (2004) study that deficiency of nutrients during gestation may cause the foetus to receive suboptimal micro and macro nutrients, causing inadequate intrauterine growth and development, inherited malformations, preterm deliveries, and pregnancy complications. Thus, attention to appropriate dietary behaviour and proper nutrient intake will supply adequate nourishment to achieve optimum health for both mother and child (Verbeke & De Bourdeaudhuij, 2007).

Feeding practices differ from culture to culture and society to society. Consumption patterns are part of the culture of any given society and are related to traditional beliefs and taboos. In most cases, women and children are highly affected by food habits and dietary discrimination (Reeves & Woods-Giscombé, 2015). In some cultures, a woman who is pregnant is prohibited from taking certain types of food such as eggs, meat and milk. They consider it a taboo or they have the notion that if the pregnant woman eats foods such as eggs, the unborn child will grow to become a thief. Others are also with the view that children are not supposed to eat meat. As a result of this, some children lack certain nutritional values such as proteins, which makes them malnourished (Zepro, 2015).

Studies show that nutritional knowledge affects the quality of food intake and also healthy choices of purchased food (O'Brien & Davies, 2007). Advancement of individual nutrition knowledge provides new information which may stimulate changing of attitude and subsequently result in enhancement of dietary practices from the mothers to their children (De Vriendt, Matthys, Verbeke, Pynaert, & De Henauw, 2009).

A study that was done by Nag showed that among 1200 women who participated in the study in India, 82 percent avoided 'papaya' during pregnancy (as cited in Zepro, 2015). 'Papaya' is considered to be a fruit which is 'hot'. Conventionally, 'hot' food items are avoided during pregnancy as it is thought that it will cause abortion. Similarly, 'cold' foods are avoided during lactation as it might affect the quality and quantity of milk production. Similar findings were also found by Brems and Berg (2010), who, having studied 18 different cultures of food intake, concluded that deliberate restriction of food intake during pregnancy is likely to have a small but significant effect on birth weight. In addition to cultural recommendations regarding an overall increase or decrease in food intake during pregnancy, particular foods may be encouraged or discouraged.

According to Stefani and Humphries (2013), culture is an integral component of food habits, affecting what, when and how we eat. Although there is a general tendency to understand culture as applying only to nations and ethnicities, social scientists see culture in every sphere of life (Pillai & Ortiz-Rodriguez, 2015). Stefan and Humphries define culture as the values, beliefs and ideas, objects and technologies, norms of behavior and related expectations, as well as the identities and unspoken rules that orient peoples' activity in the

world. Culture infuses national-level perceptions of malnutrition, informs professional approaches to characterizing and addressing malnutrition, and is embedded in the very science of nutrition itself. Culture comprises the language and symbolic elements that characterize the life of groups and serves to orient both group members and non -members to the norms of the group. For example, ethnic traditions are a strong factor in determining people's food choices.

Several factors are responsible for malnutrition among children under-five. Some of these factors are demographic factors, which comprise maternal age, sex of the child (Abera, Dejene & Laelago, 2017), age of the child (Darteh, Acquah, & Kumi-Kyereme, 2014; Darteh, Acquah, & Darteh, 2017; Endris, Asefa, & Dube, 2017; Tette, Sifah & Nartey, 2015), low birth weight (Tette, Sifah & Nartey, 2015) and birth interval (Endris, Asefa, & Dube, 2017). Also, social factors such as educational level of the mother (Endris, Asefa, & Dube, 2017) and father, marital status, occupation (Tette, Sifah & Nartey, 2015), income level (Darteh, Acquah, & Kumi-Kyereme, 2014; Tette, Sifah, & Nartey, 2015) and religion have been found to be associated with malnutrition among children under-five. Size of household, head of household, place of residence (Darteh, Acquah, & Kumi-Kyereme, 2014; Darteh, Acquah, & Darteh, 2017; Endris, Asefa, & Dube, 2017) and wealth (Darteh, Acquah, & Darteh, 2017; Endris, Asefa, & Dube, 2017) are also key determinants of malnutrition. Other factors responsible for malnutrition are sociocultural factors, which include the dietary practices, the taboos, the religious beliefs and practices of parents of children under-five. This study, therefore, seeks to assess the socio-cultural factors influencing malnutrition among children under-five years in the Cape Coast metropolis.

Statement of the Problem

According to the Ghana Statistical Service (GSS) (2011), child stunting and underweight have reduced since 2003, but the proportion of children who are stunted in Ghana is still higher than the global average of 25 percent (UNICEF, 2013). On the other hand, child wasting and overweight rose between 2003 and 2008. Both indicators increased by 1 percent between 2003 and 2008. Similarly, the GDHS estimate of child wasting is higher than the global estimate of five percent (UNICEF, 2013). Comparing the malnutrition statistics in Ghana to other developing countries (UNICEF, WHO & World Bank, 2016), they are still not up to the benchmark of the World Health Organization's (WHO) classification of low malnutrition prevalence. Thus, notwithstanding this, there is the need to investigate the drivers behind malnutrition in Ghana. This has become necessary given the fact that there has not been a steady downward trend for some indicators (Frempong, & Annim, 2017).

The Ghana Health Services (GHS) and Teaching Hospitals acting within the policy framework of the Ministry of Health (MOH) is implementing a strategy called High Impact and Rapid Delivery (HIRD) of intervention. The interventions include strategies of improving exclusive breast-feeding, complementary feeding and deworming for children less than five years in particular. This initiative, which begun in 2005, is aimed at preventing avoidable deaths due to ill-health resulting from infection and, more importantly, malnutrition among children less than five years (GHS, 2007).

The World Health Organisation (2015) estimates that approximately 150 to 200 million pre-school children (<5-years) in developing countries are malnourished. Under-five mortality is expected to increase in Sub-Saharan

Africa where the prevalence of childhood malnutrition is about 41 percent compared to other regions of the developing world (Smith & Haddad, 2000; UNICEF, 2010).

The prevalence of child malnutrition in Ghana is high compared to the WHO benchmark. According to the Ghana Statistical Service (GSS), Ghana Health Service (GHS), and ICF International, children under-five, classified as malnourished according to the three anthropometric indices of nutritional status (height-for-age, weight-for-height, and weight-for-age), reveals that 19 per cent of children were stunted, five percent were wasted and eleven percent were underweight. In terms of regional variations, with stunting prevalence, the top three regions are Northern region (33%), Upper West (22.2%) and Central Region (22%). In terms of wasting, Upper East Region is the highest (9.4%), followed by Central (7.7%) and Volta Region (3%). Again, with the number of children who are underweight, Northern Region is the highest (20%), followed by Central Region (13.9%) and Brong Ahafo Region (6%) (GSS, GHS, & ICF International, 2015).

Several studies have been done on malnutrition among children under-five in Africa. Some of these include Prevalence of malnutrition and associated factors in children aged 6–59 months among rural dwellers of Damot gale district, south Ethiopia (Abera, Dejene, & Laelago, 2017); Child malnutrition in sub-Saharan Africa: A meta-analysis of demographic and health surveys (Akombi *et al*., 2017); prevalence of malnutrition and associated factors among children in rural Ethiopia (Endris, Asefa & Dube, 2017); factors associated with malnutrition among under-five children in Nakaseke and Nakasongola districts, Uganda (Gilbert, 2015). Some studies have also been carried out in Ghana such

as impact of belief systems on the management of child malnutrition: The case of Talensis of Northern Ghana (Boatbil, Guure & Ayoung, 2014); correlates of stunting among children in Ghana(Darteh, Acquah & Kumi-Kyereme, 2014); Darteh, Acquah,& Darteh, 2017), why are children wasting (Darteh, Acquah, & Darteh, 2017); Socioeconomic inequality in malnutrition in developing countries(Poel et al., 2007) and Risk factors for the prevalence of malnutrition among urban children in Ghana(Rikimaru et al., 1998). The National nutrition policy (2013) that was drafted in 2013 with the goal of ensuring optimal nutrition and health of all people living in Ghana and to enhance capacity for sustainable economic growth and development has stated that "*anecdotal evidence suggests sociocultural factors related to nutrition outcomes have not been adequately studied in Ghana*" (Ghana Nutrition Policy, 2013). Similarly, there is still a knowledge gap on the socio-cultural factors influencing malnutrition among children under-five in Ghana. Thus, this study is an attempt to contribute empirical evidence to fill this gap. Specifically, the study will be conducted in the Central Regional Capital, Cape Coast Metropolis, which is one of the malnutrition endemic regions in Ghana.

Objectives of the Study

The study sought to explore how socio-cultural factors influence malnutrition among children under-five in the Cape Coast Metropolis. Specifically, the study sought to:

1. Describe social factors influencing malnutrition among children under-five years old in the Cape Coast Metropolis.
2. Discuss cultural beliefs influencing malnutrition among children less than five years old in the Cape Coast Metropolis.

3. Analyse feeding practices influencing malnutrition among children under-five years in the Cape Coast Metropolis.

Research Questions

1. How do social factors influence malnutrition among children under-five years old in the Cape Coast Metropolis?
2. How do cultural beliefs and practices influence malnutrition among children less than five years old in the Cape Coast Metropolis?
3. How are children under-five fed in Cape Coast Metropolis?

Significance of the Study

First, the study would inform better contextual planning and management of malnutrition generally, and that which relates to children less than five years in particular. Second, the study can help to unearth the socio-cultural practices of mothers, which are detrimental to the nutritional status of the children. Third, the study can also help health professionals to educate mothers on how to prevent malnutrition. Again, it can also provide a framework by which specific indicators could be used to assess the risk of malnutrition for a child, thereby implementing the appropriate measures to curtail it. Finally, the study can be of immense benefit to the academics in the sense that it will serve as a reference material for others who are also interested in studying malnutrition among children.

Organisation of the Study

This study is organised into five chapters. Chapter One is the introduction of the study, highlighting the background to the study, problem statement, objectives of the study, the research questions and the significance

of the study. Chapter Two delved into the review of relevant background literature that is related to the study. Chapter Three presented the research methods used for the study, describing the study area, the target population, study population, sampling procedure, the sample size, data collection methods, the data processing and analysis as well as ethical issues of the study. Chapter Four presented and discussed the findings of the study and Chapter Five presented the summary of the key findings, conclusions, recommendations and suggestions for future studies.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

Introduction

In this chapter, the relevant literature associated with socio-cultural factors associated with malnutrition were looked at. This chapter comprises the empirical, theoretical literature and the conceptual framework. The empirical literature explores specific issues such as social factors influencing malnutrition among children under-five years, cultural beliefs and practices influencing malnutrition among children under-five and feeding practices influencing malnutrition among children under-five years. The theoretical literature focuses on the Ecosystem Model of nutrition and UNICEF's conceptual framework on Malnutrition. Based on these models and the empirical review, the conceptual framework was also looked at.

Factors Affecting Malnutrition

From the literature, demographic factors, which comprise maternal related factors such as mothers' age, education, occupation, marital status, place of residence, as well as child related factors such as sex of the child, birth order of the child and weight at birth are responsible for malnutrition. The other factors include social factors, cultural beliefs and practices as well as child feeding practices.

Demographic Factors

There are a number of demographic factors affecting malnutrition among children under-five. Some of these are age of the mother, sex of the child, age of child, birth order and birth interval.

Mother's age

A number of studies have reported that mother's age is one of the determinants of malnutrition among under-five children. For example, it was found in Bangladesh that children whose mothers were less than 20 years at the time of birth were more likely to be stunted, wasted and underweight, compared to children whose mothers were 20 years and above at birth (Nure, Nuruzzaman & Goni, 2011). Bachou (2010) also found that malnourished children are mostly from young mothers. Similarly, Shrimpton et al. (2001) also found that giving birth at an older age is associated with a higher likelihood of giving birth to babies with a low birth weight. However, in Turkey, children of younger mothers are traditionally cared for by their grandmothers and this was associated with low levels of malnutrition among children of younger mothers less than 24 years (Ergin et al., 2007). Owor et al. (2000) showed that malnutrition of children was associated with young age of the mother. Silveira et al. (2010), in his study, found that with mother's age, mothers who were aged 20 years and below had higher level of malnourished children than those aged 20 years and above.

Sex of child

From the literature, sex of a child has been found as a determinant of malnutrition among under-five children. Some studies have found that malnutrition is greater among boys than girls (Henry et al., 2007; Nguyen &

Kam, 2008). For instance, a study done in Kwara state in Nigeria, Babatunde Olagunju, Fakayode, and Sola-Ojo (2011) reported that there was a significant relationship between sex of a child and malnutrition, adding that male children were more likely to be malnourished than their female counterparts. It was explained that it is probably due to increased attention paid to female children, unlike the male children. Another study done in Botswana revealed that stunting, wasting and underweight were also significantly more prevalent among boys than girls (Salah & Nnyepi, 2006). Also, Olwedo et al. (2008) reported that the male children were nearly two times more likely to suffer from acute malnutrition compared to the female children.

This situation could be due to the fact that boys are unusual at home, given the fact that they tend to be active running around in the neighbourhood, as compared to female children who, in most cases, eat whatever small feeds that their mothers got since they are always with them at home. Darteh, Acquah and Kumi-Kyereme (2014) also found that malnutrition was common among male children. Again, Amare, Negesse, Tsegaye, Assefa, & Ayenie (2016) also found that male children were more affected in both severe and moderate nutritional problems, compared to female children. Furthermore, Abera, Dejene and Laelago (2017) found that being male was associated with malnutrition. Besides, in Kenya, Ndemwa et al. (2017) noticed that stunting differed significantly between sexes (males 35.1% compared to females 21.7%). Additionally, in Iran, in terms of wasting, Mohseni, Aryankhesal and Kalantari (2017) indicated that gender is a main factor, with more boys being wasted, compared to girls. In Zambia, Nzala et al. (2011) found that malnutrition among children was associated with the male gender.

However, other studies have also found that female children are more likely to be malnourished. For instance, Shargi, Kamran and Faridan (2011) showed that the female gender is more likely to be affected with childhood malnutrition. In Nigeria, Madusolumuo and Akogun (2008) found that malnutrition was higher among females. Other studies have also found no association. For example, Habaasa (2015) found that there was no significant relationship between sex of a child and under-five malnutrition.

Age of child

Studies have found out that younger children are less likely to be malnourished than the older children (Shrimpton et al., 2011). Yimer (2000) found in Ethiopia that malnutrition increases with age of the child. The findings are similar in Nakaseke and Nakasongola districts where children aged 37-48 months were five times more likely to be underweight than their counterparts aged less than 12 months (Habaasa, 2015). Also, in Vietnam, Nguyen and Kam (2008) found that the risk of malnutrition increases with age of a child. Children in the youngest age group 0-11 months had significantly lower risk of being stunted, underweight and wasted than children in the older age groups (Nguyen & Kam, 2008). The low risk to malnutrition may be due to the protective effect of breastfeeding since almost all children are breastfed throughout the first year of life.

The Uganda Bureau of Statistics and Macro International (2007) also indicated that malnutrition increases with the age of the child through the first three years of life before declining in the fourth and fifth year. The increase is especially rapid during the first two years of life. It has been explained that sometimes parents give less attention to older children when they give birth to

a new child who needs much attention and care. Similar findings have been reported in different countries, for instance, in Kwara state of Nigeria (Babatunde, et al., 2011), in Kenya (Kabubo-Mariara et al., 2006) and in Ethiopia, (Endris, Asefa & Dube, 2017; Dewana, et al, 2017). The findings are plausible, considering that many of the younger children are still being breastfed and chronic malnutrition sets in only after weaning (Babatunde & Qaim, 2010).

Birth order and birth interval

There has been evidence of significant relationship between birth order and birth interval, on the one hand, and malnutrition, on the other hand. Some of the studies have shown that malnutrition is rare among under-five children of birth order 2-3 and that higher birth order (5+) is positively associated with child malnutrition (Sommerfelt et al., 2004). For example, in Bangladesh, Rayhan and Hayat (2006) found that the prevalence of stunting increased with birth order hence most of the children who were of birth order more than two had greater chances of stunting and wasting (Rayhan & Hayat, 2006).

In another study conducted in Bangladesh, children within the first birth interval were more likely to be stunted and children whose preceding birth interval was less than two years were also more likely to be stunted as compared to children of a preceding birth interval of 24 months or above. Similar results were observed for underweight children (Nure, Nuruzzaman & Goni, 2011). The study indicated that preceding birth intervals and child stunting were statistically significant. Preceding birth intervals of 18-35 months had a marginally positive significance on stunting whereas the interval of more than 48 months showed a negative relationship on stunting.

According to Uganda Bureau of Statistics and Macro International Inc. (2007), malnutrition is highest if the birth interval is less than 24 months (41 percent) since it is an important indicator of the nutritional status of children. Childbirth intervals were statistically insignificant in the study conducted in Nakaseke and Nakasongola districts. In Ethiopia, Endris, Asefa and Dube (2017) found that short birth interval was associated with malnutrition.

Social Factors

Several social factors have been identified in previous studies to be affecting malnutrition among children under-five. From the literature, these factors include occupation, education and marital status and place of residence.

Maternal occupation

Maternal occupation has been found to have a relationship with malnutrition among children under-five. For instance, a study in Vietnam revealed that children from mothers who were labourers or farmers had a greater prevalence of stunting, underweight and wasting than those from mothers who worked in office or were housewives (Nguyen & Kam, 2008). Significant association was also found by Fikadu Assegid and Dubethis (2014) showing that having a farmer mother predisposed a child to both stunting and underweight. Fikadu, Assegid and Dube (2014) found that children of farming mothers have access to food such as cassava, potatoes, plantain, maize, beans and groundnuts or carbohydrate food from farms, but did not have access to protein animal food, i.e. meat and fish, since these are expensive and not always available in Bandja village (Dapi, 2010). Also, farmer mothers used to sell some of the food in order to afford other needs of the household, rather than using it for the family nutrition (Dapi, Monebenimp & Äng, 2018).

Salah and Nnyepi (2006) also noted that maternal occupation was found to have an influence on nutritional status of their children. Specifically, underweight occurred to a lesser extent among children whose mothers worked in agriculture than among children whose mother were involved in informal business. In addition, Zaramba (2008) also found mothers' occupation to be affecting their children's nutritional status. For example, those who engaged in cultivation had a tendency of selling family food in a bid to get money, which subsequently caused shortages and consequently increased cases of under-five child malnutrition. In China, Lü, Zhai, Jin and Ge (2009) also found maternal occupation influencing the nutritional status of their children. Specifically, the nutrients intake and nutritional status of children whose mothers worked in administrative, scientific, technological fields, in factories or service sectors were better than that of children whose mothers were farmers or self-employed laborers. Relatedly, Mengistu, Alemu and Destaw (2013) also showed in their study that children of mothers who were skilled workers had low nutritional status compared to those in unskilled occupations. Again, in Bangladesh, Das and Gulshan (2017) found that mothers in physical labour had their children malnourished compared with those working in formal sector. In contrast, a study conducted in Ethiopia found that farmer mothers have good access to food, and therefore have well-nourished children.

Other studies have also found that some mothers, due to their occupation, leave their children at home with other siblings who sometimes neglect feeding their siblings or fail to follow the right frequency and this sometimes worsens the problem of malnutrition. It is also common for mothers to fail to provide complementary feeds, including protein foods, since most of

them cannot afford them (Olwedo et al., 2008). Such findings explain that peasant farmers who spend most of their time in their farms leave their under-five children under the care of other siblings or housemaids. These younger siblings or housemaids are sometimes too young or illiterate on proper under-five nutrition practices and this could explain why some children under-five are malnourished.

Mother's educational level

The educational level of mothers has been found to have both positive and negative influence on nutritional status of children. Several studies have found a link between mothers with higher level of education and good nutrition practices, particularly under-five child nutrition (Babatunde & Qaim, 2010; Olwedo et al., 2008; Shrimpton et al., 2001; Webb & Block, 2004). For instance, Biswas and Bose (2010) found that mother's educational status was significantly associated with the prevalence of stunting among under-five children. These studies have pointed out that most women with low education feed their children on less nutritious foods. Khattak, Iqbal and Ghazanfar (2017) found that higher paternal and maternal educational status was found to be significantly associated with normal child nutritional status.

Also, Beal, Massiot, Arsenault and Smith (2017) showed that illiteracy is one of the top three leading causes of malnutrition. Similarly, Nure, Nuruzzaman and Goni, (2011) found that the higher the level of mothers' education, the lower the percentage of under-five children. Sommerfelt et al. (2014) showed that there is a negative association between the mother's education and under-five malnutrition. Mengistu, Alemu, and Destaw (2013) demonstrated that there is a significant association between maternal education

and nutritional status of children. Also, Berger, Fields-Gardner, Wagle, and Hollenbeck (2013) had similar findings. They revealed that there is a significant association between maternal education and nutritional status of children. In Nigeria, Sebanjo, Adeodu, and Adejuyigbe (2009) also indicated that the more a woman is educated, the lesser the likelihood of her child becoming malnourished. This is because educated mothers are more conscious about their children's health and they tend to look after their children in a better way.

According to Lisa (2010), education of a mother has several potentially positive effects on the quality of care of children and consequently malnutrition. More educated women are better able to process information, acquire skills and model positive caring behaviours. More educated women tend to be better able to use healthcare facilities to interact effectively with health care providers, to comply with treatment recommendations and to keep their living environments clean. Education also increases women's ability to earn income but this increases the opportunity cost of their time, which may mitigate against some important care giving behaviours, for example, breastfeeding. More to note is that mother's education is associated with more efficient management of limited household resources, greater utilization of available health care services, better health promoting behaviours, lower fertility as well as child centred caring practices. All these consequently result into a reduction in malnutrition among under-five children (Nguyen & Kam, 2008).

Female education can also influence the nutritional status of their children positively. It has been explained by Frost, Forste and Haas (2005) that women generally are the primary caregivers in their homes, devoting more time to the protection and care of their children. Mothers, therefore, are usually the

first to recognize a child is sick. However, in many traditional cultures, uneducated women often do not act until other traditional authority figures notice the child's illness (Caldwell et al., 1990). According to Caldwell et al., educated mothers feel personally responsible for their children and are more likely to draw attention to the illness, demand that action be taken and take a sick child to the health clinic, rather than deferring decisions to traditional authority structures.

Abuya, Ciera and Kimani-Murage (2012) showed that mothers' education can significantly determine a child's nutritional status. Mothers who have at least secondary education were a protective factor against malnutrition. Ray (2000) reported that substantial differences in the prevalence of malnutrition were observed among children of literate mothers and illiterate mothers. It was found that comparatively, children from literate mothers had lower (54.93%) malnourished cases compared to the illiterate mothers (69.55%). These findings were indicative of a strong association between parental literacy and nutritional status of children. Sah (2004) also found that children whose mothers were literate were less likely to be underweight than children whose mothers were illiterate. He explained that literate mothers adopt many improved behaviors related to maternal and child health care, feeding and eating practices which ultimately improve the nutritional status of their children.

Ali et al. (2005) reported that maximum malnutrition regarding stunting (40.75%) was seen in children whose mothers were illiterate and maximum underweight (57.89%) was seen in children whose mothers had education up to primary level and maximum wasting (33.33%) was seen in children whose mothers were graduates. Similarly, Mishra et al. (2009) found that the

nutritional status of children varied across the educational classification of their parents. Specifically, the less educated parents had more of their children being malnourished, compared to the educated ones. Silveira et al. (2010) said that chronic malnutrition (-2 standard deviations/height for age) was found in 8.6 percent of children and was associated with educational level.

Quadri and Ojure (2011) illustrated that the children of mothers who had higher educational status had higher number of children malnourished. They explained that regarding women with little nutrition education, majority of them did not give colostrum to their babies, with the belief that it is dirty and should not be given in order to protect the child from diseases. Acharya et al. (2013) reported that 42 percent of children whose mothers' education was high school level and 58 percent were children with illiterate mothers were malnourished. Elham et al. (2014) also found that lower maternal education was associated with malnutrition. Similarly, John et al. (2015) stated that prevalence of stunting, wasting and underweight was associated with educational level. Specifically, stunting levels declined with increase in educational status of mothers.

Marital status

Marital status has also shown to have both positive and negative influence on the nutritional status of under-five children. For example, Abuya, Ciera and Kimani-Murage (2012) showed marital status can significantly determine a child's nutritional status. Mothers who were in union were a protective factor against malnutrition. Teller and Yimar (2000), in Ethiopia, also revealed that child's malnutrition is significantly associated with marital status. It was found out that under-five child malnutrition is higher among unmarried

rural and divorced/separated women compared to married ones. Similarly, being a married mother was positively associated with good nutritional status among children under-five years in the Volta Region of Ghana. Habaasa (2015) found that majority of the stunted children were from mothers who were married or cohabiting. Similarly, Mboho and Bassey (2013) found that marital status was associated with malnutrition. Women who were not married had more children to be malnourished.

On the contrary, Nyaruhucha et al. (2006), in Tanzania, revealed that mothers who are married were more likely to have undernourished children, unlike those that were unmarried, perhaps because of the cost of maintaining families, hence sometimes these families fail to produce nutritious supplements to the under-five children.

Place of residence

From the literature the place of residence of the mother can also influence the nutritional status of the child. Some empirical studies have found that mothers in rural areas are more likely to have malnourished children compared to women in urban centers. For example, studies in Tanzania (Mtumwa, Paul, & Vuai, 2016), Bangladesh (Alom, Islam & Quddus, 2009), Burkina Faso (Poda, Hsu & Chao, 2017), Ethiopia(Seid, Seyoum & Mesfin, 2017); Kenya (Masibo & Makoka, 2012) and Ghana (Darteh, Acquah,& Darteh, 2017; Darteh, Acquah, & Kumi-Kyereme, 2014) have found that children living in rural areas are more likely to be malnourished compared to those in urban centres.

Cultural Beliefs and Practices

Cultural beliefs have been shown as a major factor influencing malnutrition. For instance, according to Boatbil, Guure and Ayoung (2014), cultural beliefs influence malnutrition**.** Boatbil, Guure and Ayoung (2014) found that although local awareness of child malnutrition was high, yet it was not seen as a serious health burden. The beliefs about the causes of child malnutrition included a child offending a 'Tobig god' by eating dry flour, eating meat sacrificed to 'Tobig god', sucking of 'bitter breast milk, eating chicken though he/she prohibits it, and 'Sama' (living things blocking breast milk). The means for treating malnutrition included consulting soothsayers to determine modes of pacification to offended gods, drinking water with fowl droppings in it and smearing grinded guinea corn malt on mothers' breasts. The study also showed that majority of respondents preferred to treat child malnutrition traditionally.

Some studies have looked at how socio-cultural practices affect the nutritional status of children under-five. For example, a study that was done in Kenya by Chege, Kimiywe and Ndungu (2015) on the influence of culture on dietary practices of children under-five years revealed that children mainly consume cereals and legumes. Their parents usually make animal products inaccessible to their children. The livestock they own are considered a sign of wealth and (as a result of that) are mainly slaughtered on special occasions. The selling of animals or animal products is not encouraged, limiting income generation in order to improve the food basket for the household. It is also a food taboo to consume wild animals, chicken and fish and this limits the household food diversity (Chege, Kimiywe & Ndungu, 2015).

Vegetables are also perceived to be livestock feed and are not supposed to be eaten by humans. There is also the belief that land is only for grazing. This also negatively contributes to crop production. In the culture of the Maasais, they encourage the introduction of blood, animal's milk and bitter herbs to infants below six months, which affects exclusive breast feeding and also has the higher likelihood of introducing contaminated materials into the child, which is just like the consumption of raw meat, milk and blood, which is likely to lead to infections. The practice of milk fermentation improves bioavailability of micronutrients and food safety. They are so much reliant on traditional medicines that hinder their visit to health facilities and as a result they have no access to nutrition education that is sometimes being given in the hospitals (Chege, Kimiywe, & Ndungu, 2015).

Another study that was done by Mengesha and Ayele (2016) on the impact of culture on the nutritional status of children and mothers showed that the culturally patterned role and status of women and socially constructed gender hierarchy, directly contributed for the recurrence, frequency and prevalence of acute, moderate and severe malnutrition (undernutrition) among children under-five years and lactating and pregnant mothers.

In Nigeria, Maduforo (2010) noted in his study that cultural beliefs contribute to malnutrition among children under-five. Mothers reported there were cultural beliefs and taboos that prohibit children from eating eggs during weaning. Similarly, Ekwochi et al. (2016) and Abdulai et al. (2017) have reported that cultural beliefs that prohibit the eating of eggs among children with the belief that it leads children to be thieves when they grow older have been a major contributory factor to child malnutrition. Relatedly, in Kenya, the

cultural belief about some food taboos prohibit consumption of wild animals, chicken and fish which limits the household food diversity. Consumption of vegetables is limited since they are perceived to be livestock feed. The belief that land is only for grazing contributes to low crop production and consumption. Maasai culture encourages introduction of blood, animal's milk and bitter herbs to infants below six months, which affects exclusive breast-feeding. The men are prioritized in food serving, leading to giving less and poor-quality food to children. This is also supported by the findings of Karigi, Mutuli and Bukhala (2016) who noted that cultural beliefs and taboos, thus food taboos/restriction and beliefs, have a strong negative influence on nutritional status of children.

Also, Mengesha and Ayele (2016) found that the culturally patterned role and status of women and socially constructed gender hierarchy has directly contributed for the malnutrition (undernutrition) among children under-five, lactating and pregnant mothers. Pemunta and Fubah (2015) also revealed that socio-cultural factors such as food taboos and representations of the colostrum as dangerous for infants were widespread throughout and these contribute to malnutrition among children under-five.

Child Feeding Practices

Infant feeding practices are a determinant of malnutrition among children under-five years. The child feeding practices that affect malnutrition include whether the children were exclusively breastfeed, whether they were given complementary foods and how they are weaned. Women are naturally the primary caregivers at the beginning of a child's life. Carrying out such functions

such as breastfeeding is, therefore, very critical to maintain good nutritional status of the child (Saunders & Smith, 2010).

Studies have shown that the proportions of underweight and stunted children are significantly lower among mothers who initiated breastfeeding within six hours of birth. For example, Ibrahim et al. (2017) indicate in their study that children who were given colostrum were not malnourished, compared to children who were not given colostrum. Similarly, Moshy, Masenge and Bryceson (2013) found that in Tanzania, children who were malnourished were not given colostrum after birth. Also, Islam, Mahanta, Sarma and Hiranya (2014) also found a higher prevalence of both stunting and underweight among under-five children who were deprived of colostrum.

Also, improper, complementary feeding is a risk factor for underweight among children. According to Kumar (2006), more underweight children were found among the groups who did not get proper complementary foods. For example, the duration of exclusive breastfeeding is an important determinant of child nutritional status. It is established that children of mother's who exclusively breastfeed their infants for less than six months have a higher risk of being malnourished compared to the children whose duration of exclusive breastfeeding is up to six months (Hien & Kam, 2008). This is supported by a study that was done in Ghana by Nti, and Lartey (2007) which revealed that children who were given exclusive breastfeeding for six months were not malnourished, as compared to those who did not practice exclusive breastfeeding. In a similar study, Nti and Lartey (2006) revealed that although breastfeeding rates were high, complementary feeding practices were less than ideal with many children being introduced to complementary foods below the

age of 3 months. The nutritional qualities of complementary foods were poor and the prevalence of stunting among the children was high.

According to Adigrata (2000), some mothers with babies 0-2 years consider cow's milk as best for growth of children while some mothers consider breast milk as harmful when mothers get pregnant (Wolde, 2002; Lisa, 2010). In India, Sethi, Kashyap and Seth (2013) also found that most mothers did not practice good feeding practices which contributed immensely to the malnutrition cases among children under-five. Similarly, Haque, Hussain, Sarkar, Hoque, Ara, and Sultan (2012) showed that mothers who practiced improved feeding practises such as avoiding of feeding bottle and increased various type of complementary food contributed to a reduction in the malnutrition cases.

Again, Madusolumuo and Akogun (2008) also found that poor weaning and food supplementation exerted the strongest influence on the nutritional status of the children whose diet consisted mainly of cereals. Nankumbi and Muliira (2015) also found that children who were not given complementary feeding before six months were not malnourished; however, those who were given complementary feeding before the six months were malnourished. Relatedly, Sika-Bright (2010) also found that feeding practices have a great influence on the nutritional status of children less than five years. He found that mother's marital and employment status, friends' way of feeding their babies, social support and baby's age were found to influence mothers' infant feeding practices.

Awumbila (2003) argued that there is the existence of beliefs and value systems, especially with regard to the cultural administration of water to

children below six months. A key finding was that mothers-in-law were often the primary decision-makers regarding infant feeding practices. Elderly women and older co-wives in the household were also influential in feeding decisions. In nearly all households where the mother-in law was present, she played a dominant role in deciding breastfeeding initiation and the timing of the introduction of food complements and supplementary foods. This pattern occurred because of their higher status within the household and the extended family system.

The Ecosystem Model of Nutrition

The Ecosystem Model of Nutrition was developed in 1972 by Sims, Paolucci and Morris (1972) to study the nutritional status of pre-school children. According to the model, children are not isolated beings; they exist not only as individuals, but also as members of families, as members of peer groups and as members of general social systems. There are three key tenants of the model. They are the environment (socio-cultural, biophysical and technological), the family and the child as an ecosystem (Golden & Earp, 2012). The model has been applied in diverse ways. For example, it has been used to evaluate nutrition education and social marketing programs with low-income audiences (Gregson et al., 2001), promotion of healthy eating in the school (Townsend & Foster, 2013) and examined obesity intervention (Brown, 2011). The key strength of the model is that it has been able to study the influence of health outcomes through targeting determinants at both individual and at the social levels (Golden & Earp, 2012).

Thus, the family may be seen as a system because it acts as a processor or convertor of input goods and services from the environment to produce an

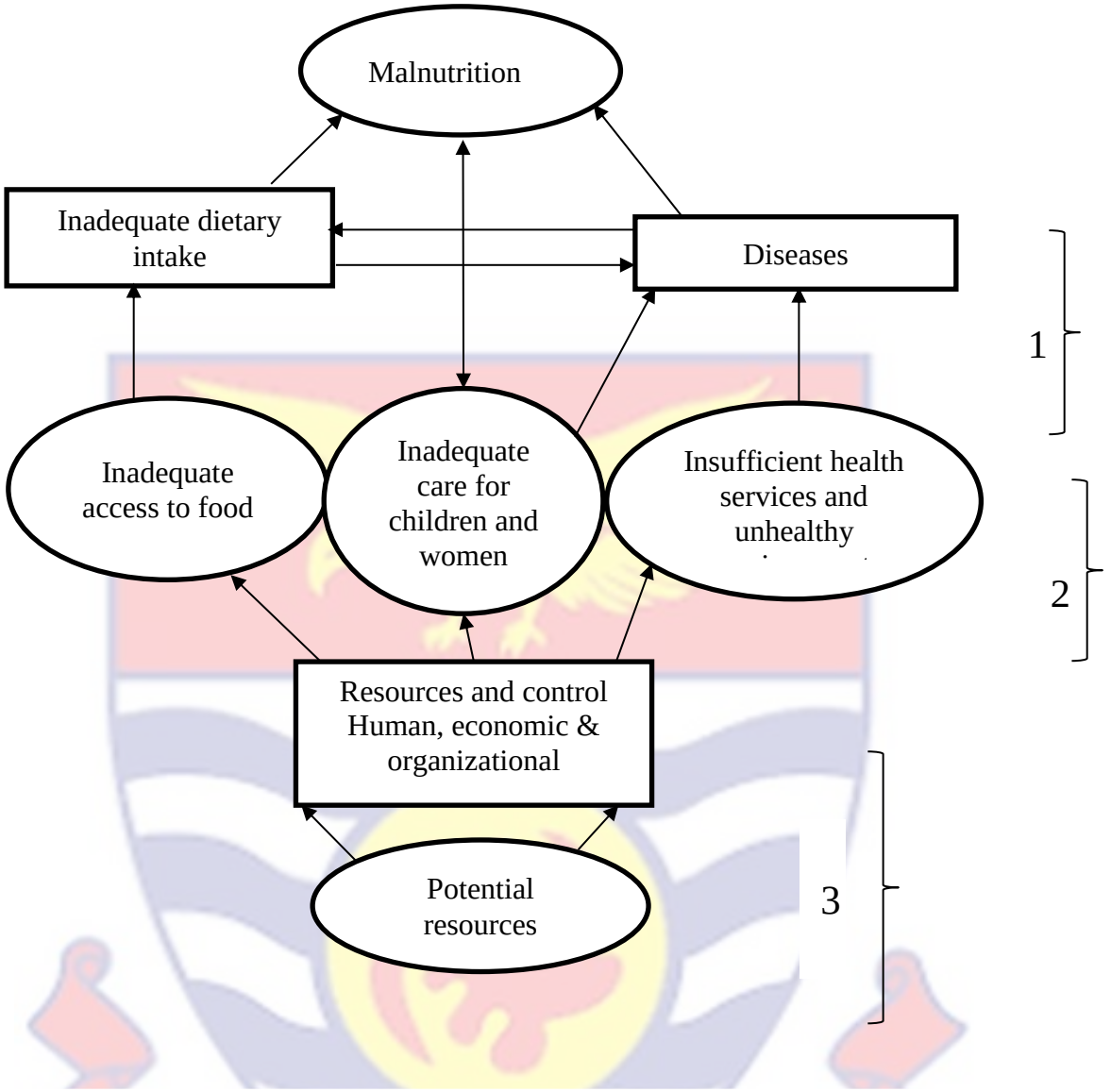
output flow of converted products, waste, or surplus. When families manage resources appropriately and establish relevant goals, requirements of children will be met for nutrient supply (food), emotional support, and intellectual stimulation, all of which are required for optimum growth and development. In addition to acting as an independently functioning system, the family provides an intervening environment for the developing child. The family acts as an interface between the developing child and the components of the more distal environment.

The child, although independent in being able to satisfy his tissue needs for nutrients and energy, to excrete waste products of metabolism and to make voluntary movements, is dependent on others (primarily family members), to provide him with food, warmth and security**.** Thus, the manner in which the child's needs are met will depend upon the family and the circumstances in which he lives. Within the home setting as well as in the neighbourhood and community are those environmental resources that enable him to meet his growth potential. Operationally, the environment would be bounded by the child's direct and indirect involvement with such resources, whether they are persons, activities or objects. This model will guide the work as it has the ability to explain malnutrition from both the individual as well as the social levels or perspectives.

UNICEF Framework on Malnutrition

The global dilemma of malnutrition can be understood and addressed with the aid of the framework, shown in Figure 1, developed by the United Nations Children's Fund (UNICEF) (2004). The framework categorizes the causes of malnutrition into three main categories. These are, immediate causes

intermediate and fundamental causes. The immediate refers to poor economic and political structures and their influence on malnutrition. The intermediate causes also refer to poor dietary intake, psycho-social stress and trauma as well as diseases such as diarrhoea and acute respiratory conditions, which further complicate malnutrition among children under-five. The last cause, according to the framework, is the underlying causes. The underlying causes refer to household food insecurity, lack of knowledge and education, caring practices and health services, as well as an unhealthy environment. Hunger and under-nutrition arise from poor food consumption, poor care and unhealthy facilities, and, indirectly, agricultural barriers, lack of employment opportunities and women's status in society all have an influence on the nutritional status of children under-five (Klugman 2002; Kurz & Johnson-Welch, 2001).



1. Immediate Contributors 2. Intermediate Contributors 3. Fundamental Contributors

Figure 1: UNICEF Framework on Malnutrition
Source: UNICEF (2004)

From the framework, at the immediate level, both forms of malnutrition result from an imbalance between the amount of nutrients and energy required by the body and the amount of nutrients and energy consumed. In the context of undernutrition, insufficient dietary intake and/or poor health due to infection can lead to a negative balance in nutrients and energy. In early childhood, infection and undernutrition are often interlinked in an ongoing cycle. Infections such as diarrhoea and intestinal infestations can reduce appetite, impair absorption and lead to a loss of nutrients, whereas systemic infections such as pneumonia or measles increase the need for nutrients. This cycle leads to nutrient deficiencies. Adequate supply of nutrients is especially important in early childhood, when many of the body's immune and cognitive functions are being developed. Once these systems are compromised, repair and catch up are very difficult (Adair et al., 2013; Black et al., 2013; Haddad, Cameron & Barnett, 2014; Swinburn et al., 2011; Victora et al. 2008).

At the intermediate level, several environmental determinants, including food, living arrangement, social and health environments, underpin individual-level health behaviours and biological factors. In the context of undernutrition, the ability to ensure adequate dietary intake at all times depends on household food security which includes the availability and physical and economic access to sufficient amounts of nutritious and culturally accepted food to meet dietary requirements. Health-promoting care and feeding practices depend on supportive social environments that, for example, empower mothers to breastfeed and equip households and communities with resources to access services. Lack of affordable, good quality health service or barriers to access these services, unhygienic, overcrowded living conditions and poor access to

clean and safe water and sanitation facilities further increase the risk of undernutrition (Haddad, Cameron & Barnett, 2014).

In the context of overnutrition, food environments characterized by high availability and promotion of processed, low-cost, energy-dense foodstuffs (e.g. via fast-food outlets, supermarket chains) can result in overconsumption. Social environments that support larger body sizes promote unhealthy eating patterns (e.g. high-caloric snacking) and sedentary working practices may further increase the risk for obesity. Built or natural living environments can support or discourage a physically active lifestyle. Finally, a health care system that does not actively respond to the burden of obesity can further aggravate obesity and its associated health problems (Haddad, Cameron & Barnett, 2014).

On the fundamental contributors, different system-level factors can act as directional forces for the immediate factors and intermediate factors and ultimately for both undernutrition and overnutrition. For instance, economic growth has the potential to improve household food security, regulate food markets for processed foods and beverages, provide safe living environments that offer opportunities to be physically active, support social environments that encourage health-promoting practices and deliver good quality and comprehensive preventive and curative health care. But economic growth is also associated with increases in overweight and obesity (Ruel & Alderman, 2013). The quality of governance is also thought to be a major driver of the strength of determinants and responses to malnutrition. From quality of service delivery to the ability to co-ordinate across sectors, quickly prioritize actions, regulate and incentivize different public and private actors and learn from interventions, the quality of governance is important for managing and reducing

malnutrition (Gillespie et al., 2013). Although this model has been used to study malnutrition, the study will only adapt some of the variables but not the complete model.

Conceptual Framework

The conceptual framework for the study was constructed based on the empirical as well as the theoretical frameworks that were reviewed. Based on the conceptual framework for UNICEF, a conceptual framework was adapted based on the objectives set for the study. Additional information is also drawn from the ecosystem model of malnutrition. From the framework, the interrelationship between social factors, cultural factors and the feeding practices of the mothers on malnutrition is shown (See Figure 2).

Social Factors

The first component of the conceptual framework has to do with the social factors and their influence on malnutrition. It has been shown from the empirical studies that marital status has both positive and negative influence on the nutritional status of the children. In the positive sense, it has been shown that women in marriage sometimes have the support from their partners and significant others to be able to take good care of the children by giving them adequate nutrition. However, women who are not in marital unions and give birth without husbands, holding all things constant, sometimes struggle to take good care of their children, thereby exposing them to a higher probability of being malnourished as they do not have the adequate resources to feed the child well.

Again, the type of occupation as well as the employment status of the caregiver can affect the nutritional status of the child. It has been argued in the literature that mothers or caregivers who are employed are less likely to have malnourished children compared to the children of women who are unemployed. Despite this evidence, juxtaposing malnutrition among the various types of employment, it has been found that some employment types make mothers more busy (not to get time to take good care of their children) and for that matter exposing them to malnutrition since they are not well fed (Nordang et al., 2015).

In terms of educational level, women who are highly educated are more likely to comprehend the nutrition education that is usually given to them, compared to the women who are not educated. Again, women who are educated are empowered and less likely to practise socio-cultural practices that are harmful to the health of their children.

Cultural Beliefs and Taboos

The cultural beliefs and taboos have been replete in the malnutrition discourse. It has been argued that some cultural beliefs such as the prevention of children from eating eggs and meats is a major factor accounting for malnutrition in some indigenous communities and communities who uphold these cultural beliefs and practices. Again, the cause of malnutrition has been attributed to several traditional beliefs (Pillai, Wang & Wei, 2016). In some traditions, it is believed that malnutrition is caused by children whose parents have wronged the gods and for that matter must be sent to these goods to pacify them before they can get well. Furthermore, there is also the belief that some children have been watched with a 'bad eye' and as a result must be sent to

prayer camps before they can get well. All these beliefs have some implications on the nutritional status of the child (Kavle et al., 2014).

Feeding Practices

For children to be well-nourished, their feeding practice is one of the paramount things that must be considered (Nankumbi, & Muliira, 2015). This hinges on the type of food given to the children**,** the quality of the food, the frequency of breastfeeding and even giving the child colostrum right after birth. Due to several reasons, some of these things are compromised and they go a long way to affect the nutritional status of the child. For example, some children are not exclusively breastfed and, as a result, due to the complementary foods that are given to them before the sixth month, the mothers introduce unhygienic substances into their system. In addition, some of the mothers do not have adequate time to feed the children how they are supposed to be fed and thereby depriving the children from getting the required amount of food in their system (Vitta et al., 2016). Furthermore, some children are not given colostrum, which is very nutritious. Some mothers hold the notion that it is not important to be given to the children. All these factors interplay to affect the nutritional status of under-five children. This is shown in Figure 2.

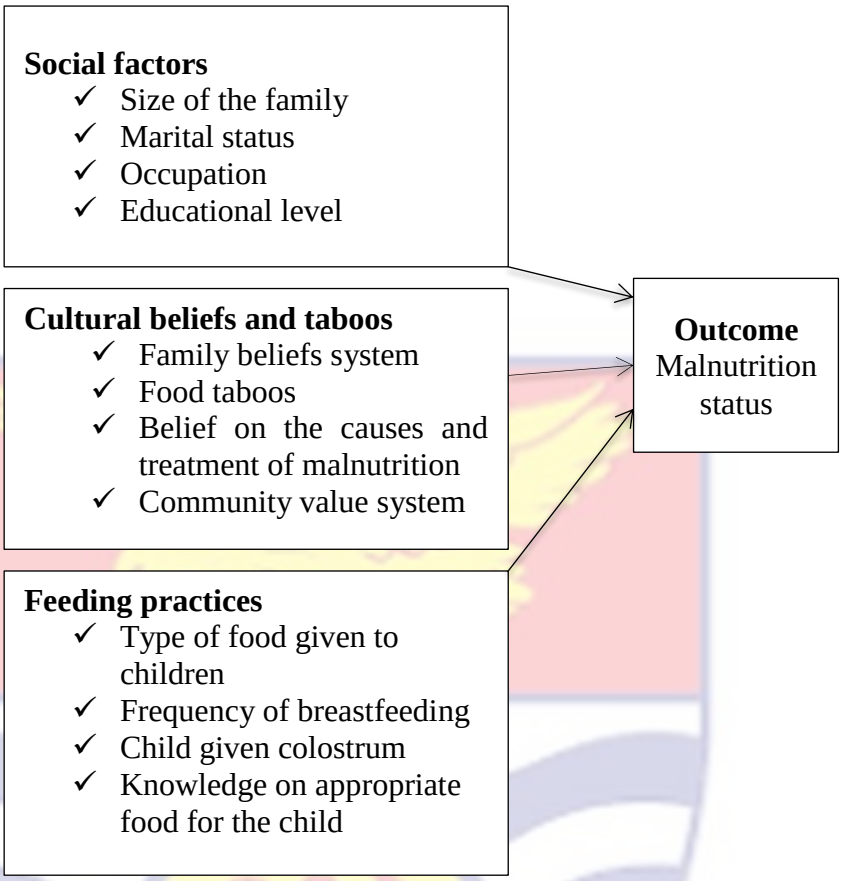


Figure 2: Conceptual Framework Adapted from UNICEF (2014)

Source: UNICEF (2014)

Summary of Literature Review

Whereas the literature reviewed indicates that malnutrition among children under-five years is determined by several factors, it has been well established that most of the studies are quantitative in nature and therefore there is the need to conduct a qualitative study to get deeper understanding of the "whys" and "how" of malnutrition among children under-five

CHAPTER THREE

RESEARCH METHODS

Introduction

This chapter dealt with the processes that are involved in collecting, analysing the data as well as presentation of the data findings. It comprises the description of study area, study design, trend of malnutrition in the Cape Coast metropolis, target population, sampling and sample size and study instrument. Other issues covered in this chapter include pre-testing of the instrument, source of data, data collection, data management, data analysis and ethical consideration.

Research Philosophy

Cresswell (2003) refers to research paradigm as epistemology or ontology, or even research methodology. The philosophical perspective of the study is the interpretive perspective. According to Andrade (2009), the interpretive explains that reality is socially constructed and that the individual's interaction with his or her experiences and environment constructs perception, knowledge and reality. In this study, the mothers'(caregivers) views on the sociocultural factors influencing malnutrition is explained in relation to their experiences of their malnourished children and also how beliefs and social norms are responsible for malnutrition in their various communities.

Research Design

The study employed the qualitative approach. The importance of qualitative research is the fact that it describes social phenomena as they occur naturally and no attempt is made to manipulate the situation (Thanh & Thanh, 2015). Based on this, the study adopted the exploratory descriptive approach to study the socio-cultural factors influencing malnutrition among children under-five years in the Cape Coast Metropolis. Exploratory research is defined as a research used to investigate a problem which is not clearly defined. It is conducted to have a better understanding of the existing problem. The advantages associated with this study design include the researcher has a lot of flexibility and can adapt to changes as the research progresses, it is usually low cost, it helps lay the foundation of a research, which can lead to further research, It enables the researcher understand at an early stage, if the topic is worth investing the time and resources and if it is worth pursuing and it can assist other researchers to find out possible causes for the problem, which can be further studied in detail to find out, which of them is the most likely cause for the problem **(**Mayer, 2015).

Study Area

The study was conducted in the Cape Coast Metropolis in the Central Region of Ghana (See Figure 3). The information on study area is needed to appreciate the findings. The Metropolis is found on longitude 1^0 15^0W and latitude 5^0 06^0N and bounded to the south by the Gulf of Guinea, to the west by the Komenda-Edina-Eguafo-Abrem Municipality, to the east by the Abura Asebu Kwamankese District and to the north by the Twifo Heman, Lower

Denkyira District. There are 84 communities in the Metropolis. The Metropolis stretches over a total land area of about 122 square kilometres (GSS, 2013).

The population size was 169,894 consisting of 82,810 males (48.7%) and 87, 084 females (51.3%). Of the total population, 17, 539 are children under age five (0-59 months), comprising 8,859 (50.5%) males and 8,680 (49.5%) females, implying male dominance over the females at birth to 59 months. Three-quarters (130, 348) of the population live in urban areas (GSS, 2013).

The indigenes of Cape Coast are part of a larger group of people known as Fantes found in the central part of Southern Ghana and are among the Akan ethnic group. The language spoken by the people is Fante. People belonging to other ethnic groups are also found in the Metropolis. The entire Metropolis constitutes one traditional area, with the Oguaa Omanhen as the Paramount Chief. The matrilineal system of inheritance is practiced by the people and the extended family, otherwise known as "ebusua" or clan, is the basis of the social structure. The "odikro" or chief is the political head of a town or village. The main festival celebrated in the Metropolis is the "Oguaa Fetu Afahye", which is celebrated in the first Saturday of September every year, and usually attracts people from all walks of lifes, both far and near (GSS, 2013).

Christianity is the main religion (85.1%), followed by Islam (9.7%). Traditionalist constitutes only 0.3 percent of the population. However, four percent of the population have no religious affiliation. Christians are further categorised as Catholics (17.8%), Protestants including Methodist, Anglican, and Lutheran (28.3%), Pentecostal/Charismatic (28.7%). Other Christians constitute 10.3 percent of the population (GSS, 2013).

Nine out of 10 persons in the Cape Coast Metropolis who are 11 years and older are literate, that is, they can read and write. Literacy is nearly universal among the youth population of the Metropolis. The population in the age group 11-24 years have a literacy rate of about 97 percent. Except in the older ages of 60 years and beyond, the Metropolis has a high literate population where four out of every five persons can read and write in one language or the other (GSS, 2013).

Among the population currently in school, more than one third (34.4%) are in tertiary institutions, 27 percent in primary, 13.1 percent in JHS and 11.4 percent in SHS education. This confirms the earlier suggestion that most of the migrants in the Metropolis are students. While there are currently more males (40.4%) in tertiary institutions in the Metropolis, a relatively smaller proportion of the females (28%) are in this level of education. Contrarily, the proportion of females in primary, JHS and SHS is higher. It shows that for those who have been to school in the past, slightly more females have had basic education than males. The highest level attained by most of those who attended school in the past is Middle/JSS/JHS (46.1%), while 16 percent attained secondary /SSS/SHS level. The data also shows that 11.7 percent of males who attended school in the past had primary level of education, compared to 16.5 percent of females. Contrarily, 17.3 percent of males attained tertiary education, compared to 10.5 percent of females (GSS, 2013)

The Cape Coast Metropolis is endowed with many schools across the length and breadth of the Metropolis, ranging from basic to tertiary institutions. These schools attract people from all over the country and the West Africa Sub-region, who pursue various levels of academic and professional education. The

Metropolis is endowed with a regional hospital, a district hospital and various clinics that provide health care to the population. The regional hospital, one of three such facilities in the country, serves as a referral centre for the region. The Cape Coast Metropolis served not only as historical sight for the slave trade but also as a centre for the early Christian missionaries, notably the Basel Missionaries. Christianity, which is the dominant religion in Ghana, started in Cape Coast (GSS, 2013).

The 2010 population and housing census report further indicates that 121,654 persons, made up of 54.7 percent persons who are economically active and 45.3 percent persons who are economically active. The economically active population (66,497) is made up of 90.7 percent employed and 9.3 percent unemployed persons. Similar proportions are observed for both the male and female population. While 62.9 percent of the unemployed males are first time job seekers, the corresponding proportion of females is 55.9 percent. This implies that 44 percent of the currently unemployed females had ever worked, compared with 37 percent of their male counterparts.

Approximately thirty-three (32.5) percent of the employed 15 years and older are service and sales workers, 23.6 percent are craft and related trades workers, and 13.2 percent are professionals. Other occupational categories include elementary occupation (8.2%), skilled agricultural, forestry and fishery workers (6.8%), plant and machine operators and assemblers (4.9%), managers (3.7%), clerical support workers (3.5%) and technicians and associates professionals (3.5%). The main occupation of employed males is craft and related trades (27%) while that of females is service and sales (47.5%) (GSS, 2013).

There are 33 health facilities in the Cape Coast Metropolis. Out of this, one is a teaching hospital, two hospitals and eight health centres. There are also fifteen clinics, five Community-Based Health Planning and Services (CHPS) Compounds, one maternity home and one healing home (Metropolitan Health Directorate, 2018).

The Metropolis is grouped under-five (5) health care zones according to the distribution of health facilities for health administration purposes. These are the Reproductive and Health Centres (RCH) health care zone, University of Cape Coast (UCC) health care zone, Ewim health care zone, Adisadel health care zone and Efutu health care zone (Metropolitan Health Directorate, 2018). About one third (29.8%) of the population aged 12 years and older are married, 55.5 percent have never married, 4.9 percent are in consensual unions, 4.2 percent are widowed, 3.9 percent are divorced and 1.7 percent are separated. The detailed map showing where the hospitals the study took place is presented in Figure 3.

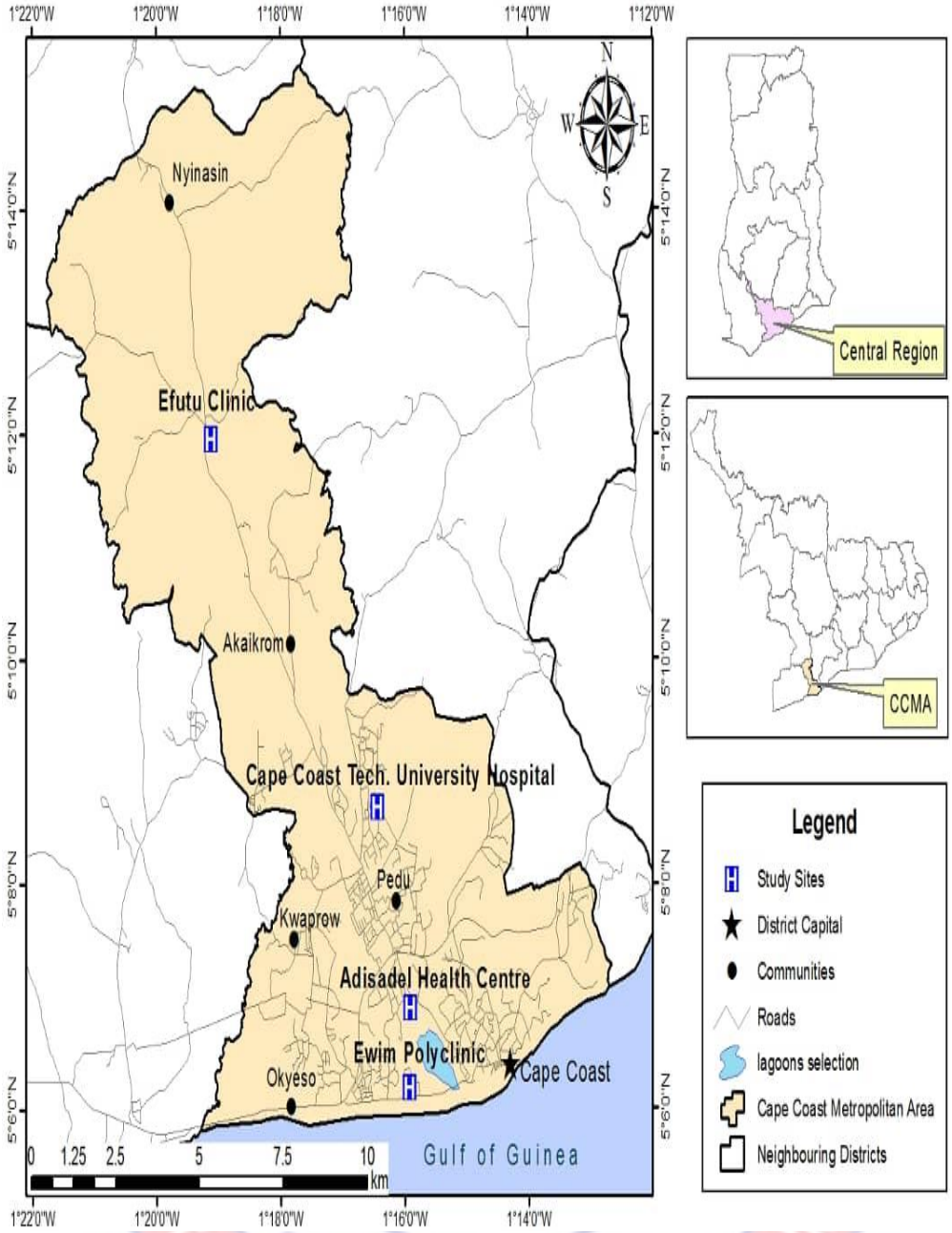


Figure 3: Map of Cape Coast Metropolis Showing the Study Sites

Source: Remote Sensing and Cartographic Unit, Dept. of Geography and Regional Planning, UCC, Cape Coast (2018)

Trend of Malnutrition in Cape Coast Metropolis

Table 1 shows the trend of malnutrition in the Cape Coast metropolis from 2015 to March 2018. It has been observed that in 2015 the number of children who were malnourished were 41 and 2018(march) the number of malnourished children were 32.

Table 1: Trend of malnutrition in the Cape Coast Metropolis

Age	2015		2016		2017		2018(March)	
	Male	Female	Male	Female	Male	Female	Male	Female
0-6	5	5	1	4	15	15	6	5
7-12	11	17	7	7	0	2	2	6
13-24	0	2	5	11	2	1	4	4
25+	0	0	0		1	0	2	3
Total	**17**	**24**	**13**	**22**	**18**	**18**	**14**	**18**

Source: Cape Coast Metropolitan Health Directorate (2018)

Target Population

The target population for this study were mothers(caregivers) with children under-five years. A mother in this study was someone who lives with children at least a child under-five. This population with children less than five years (0-59 months) was targeted because they are primarily those who take care of children under-five years in Ghana (Tolhurst et al., 2008).

Sampling and Sample Size

Purposive sampling technique was employed to select participants for the study. The purposive sampling technique was used due to the fact that the study was interested in mothers with malnourished children who were under-

five years of age. The choice of a sample size for the in-depth interview was guided by the need to obtain rich data. A sample frame of 32 malnourished cases was obtained from the Cape Coast Metropolitan Health Directorate from January to March 2018 (Cape Coast Metropolitan Health Directorate, 2018). The bases for the time duration was that since some of the children are under monitoring if the duration was longer they might have recovered from the malnutrition. The information was obtained from the various health facilities within the metropolis where the children were examined and declared as malnourished. The information was used to trace the mothers to the various health facilities where the cases were recorded. At the 18th respondent, new ideas and themes stopped emerging from the data. As such, this study considered views from a total of 18 respondents, drawing on the principles of saturation.

Source of Data

The study made use of primary data obtained from mothers with children under-five years with the help of an in-depth interview guide. In instances where the child was being taken care of by a caregiver, the person was also interviewed.

Data Collection Instrument

The research instrument that was used for this study was an in-depth interview (IDI) guide**.** The IDI guide consisted of four sections. The first section looked at the socio-demographic background of mothers such as mothers' age, occupation, income level, ethnicity, place of residence, marital status and number of children. The second section focused on the social factors and how

they influenced malnutrition among children under-five years old in the Cape Coast Metropolis. The section three looked at the cultural beliefs and practices and how they influence malnutrition among children less than five years old in Cape Coast Metropolis and the final section looked at the feeding practices and malnutrition among children under-five.

Pre-Testing of the Data Collection Intrument

The in-depth interview guide was pre-tested among mothers with malnourished children at Elmina health centre, in a town located in the Komenda-Edina-Eguafo-Abrem Municipality on 25th February, 2018. The town and the facility were used for the pretesting because it exhibits similar characteristics compared to the study area. The pre-testing was done to ensure the comprehensiveness of the in-depth interview guide and also to ensure that it seeks to measure what it intends to measure. Necessary corrections were made. For example, the section on the feeding practices was modified to incorporate the type food they are children are fed with, use of complementary feeding as well as how and who feed children. The in-depth interview guide was modified based on the pre-test findings.

Data Collection Procedure

Data on children who were malnourished were obtained from four health facilities in the Metropolis (Cape Coast Technical University Hospital, Adisadel Health Centre, Ewim polyclinic and Effutu Clinic) and their mothers were interviewed. The data on the list of children who were malnourished were obtained from the health facilities and the mothers were contacted through phone calls. Appointments were made with the women for them to be

interviewed. Four women were interviewed in their houses while the remaining 14 were interviewed in the health facilities. A graduate student also with the Department of Population and Health, from the Faculty of Social Sciences, University of Cape Coast assisted in the data collection exercise. The field assistant has been engaged in fieldwork since 2012 and has gained considerable experience in research work. A day training was organised for him to acquaint himself with the instruments. The issues in the instruments were discussed thematically and thoroughly. The content the instrument, were translated from English to the local languages (Fante and Twi).

The data collection started on the 5th of March 2018 and ended on the 27th of April 2018. On the average each interview lasted one hour 14 minutes. An electronic recorder was used to record the interview. Daily coding and transcription of responses were done to allow for further responses or clarifications on the responses whenever the need arose. This enhanced effective cleaning of the data (Babbie, 2004).

In-depth interview is a technique designed to elicit a vivid picture of the participant's perspective on the research topic. In other words, it is a type of interview which researchers use to elicit information in order to achieve a holistic understanding of the interviewee's point of view or situation; it can also be used to explore interesting areas for further investigation (Creswell, 2012). The in-depth interviews were considered appropriate due to the following reasons: the researchers established rapport with the participants to make them feel more comfortable and at-ease, which generated more insightful responses; the interviewers had much more opportunity to ask follow-up questions, probe for additional information, and go back to key questions later on in the

interview; interviewers could monitor changes to tone and word choice to get a deeper understanding (Jamshed, 2014).

Data Management and Analysis

After each day's interviews, the recorded interviews as well as the field notes were kept confidential. Two research assistants who were experienced in transcription and qualitative data analysis helped to transcribe the interviews. The assistants systematically read the transcripts independently. After this was done, they generated themes and subthemes and assigned codes to them (See Table 2). The codes developed were combined into set of codes. The recorded interviews and the soft-copy version of the transcription were stored safely to prevent a third party from having access to them. This was done using 'my lock box' app on my personal computer while the field notebooks were also kept in a locker.

The data were analysed with Nvivo Version 11. It was guided by an inductive content analysis approach. This approach involves thorough reading of data before analyses (Thomas, 2006). It helped to identify the major themes as well as sub-themes that emerged from the data. First of all, the recorded interviews were transcribed. The transcripts were studied and, subsequently, organised into four main sections similar to the sections in the instrument. Secondly, general themes that emerged were developed. After that, sub-themes were created and assigned codes. Both similar and different views and experiences on the subject were identified under sub-themes to aid comparison. Finally, quotations from the respondent were used to support the views they raised on the various issues.

How Trustworthiness was Maintained

Trustworthiness was upheld by outlining the finding's according to the views of the participants on the factors contributing to malnutrition among children under-five. This is supported by the postulate by Lietz, Langer and Furman (2006) who indicated that trustworthiness is established when findings are closely as possible reflect the meaning given by the participants. To ensure that trustworthiness was maintained, the following steps were followed. There was freedom for the study participants to agree or not agree to take part in the study and can withdraw at any time from the study. The researchers adopted various tactics to ensure honesty in information the participants were given. This was ensured by asking the respondents to be frank in their responses. Again, there was the use of probes and iterative questioning and the development of early familiarity with them (Shenton, 2004). Finally, multiple researchers and research assistants did the coding of the data and compared the codes and this increased the inter-rater reliability.

Ethical Considerations

The following ethical guidelines were followed to be consistent with all ethical standards required to conduct a research. Firstly, copies of the research proposal were submitted to the University of Cape Coast's Institutional Review Board (UCC-IRB) and Ghana Health Service (GHS-IRB) for assessment and clearance (See Appendix B & C). Again, to ensure informed consent and participation in the recruitment processes, the mothers were briefed about the purpose of the study. Also, before any interview commenced, a mother who can read and write in English was given a written consent form (to read and freely decide to participate in the study by signing). Nonetheless, with those who

cannot read the informed consent form, the researcher read it and interpreted it to them in Fante for them to best understand before participation. Those who cannot write and agreed to take part in the study were asked to thumbprint on the consent form. Further, consent was sought from the mothers before every interview was tape-recorded. Also, no information that has tendency to reveal the identity of the respondents were included in the study report so as to ensure anonymity.

Challenges in Fieldwork

There were some challenges and limitations that need to be acknowledged in the fieldwork and the study in general. Firstly, getting the mothers of the malnourished children was a challenge because some of the mothers were not bringing their children to the health facilities for check-up. This was addressed by obtaining the contact information of the mothers and calling them to booking appointment for the interviews. Also, the researcher and the field assistant joined the community health nurses for community outreach and they helped in locating the mothers whose contact numbers were not reachable. Another challenge was that although the data obtained from the health facilities indicated the children were malnourished, some of the women did not accept the malnourished status of their children. This was addressed by the help of the community health nurses who explained to the mothers before they agreed to be interviewed.

Summary of Chapter Three

The chapter three of the thesis focused on research philosophy, research design, study area, trend of malnutrition in Cape Coast metropolis, target population, sampling and sample size, source of data, data collection instrument, pre-testing, data collection procedure, data management and analysis, how trustworthiness was maintained, ethical considerations and the challenges in fieldwork

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

This chapter presents results from the study on socio-cultural factors affecting malnutrition among children under-five in the Cape Coast Metropolis. It provides an overview of the socio-demographic characteristics of the respondents, comprising age, level of education, monthly income, religion, marital status, occupation, place of residence, ethnicity, number of children and age of current child. The chapter also presents information on the socio-economic, cultural and feeding practices affecting malnutrition.

Results

Table 2: Socio-Demographic Characteristics of Respondents

Variables	Frequency	Percentage
Age		
Less than 20	1	5.6
20-24	11	61.1
25 and above	6	33.4
Level of Education		
No formal Education	1	5.6
Primary	5	27.8
JHS	12	66.7
Monthly income (GHC)		
Less than 150	1	5.6
150-250	6	33.4
251 and above	4	22.3
Unemployed	7	38.9
Religion		
Christian	15	83.3
Moslem	3	16.7
Marital status		
Married	5	27.8
Never married	9	50.0
Cohabiting	2	11.1
Widow	1	5.6
Divorce	1	5.6

Table 2 continued

Occupation		
Fish monger	2	11.1
Food seller	5	27.9
Seamstress	1	5.6
Petty trader	3	16.8
Unemployed	8	38.9
Place of residence		
Agona	1	5.6
Cape Coast	16	88.9
Jukwa	1	5.6
Ethnicity		
Dagomba	1	5.6
Fante	16	88.9
Kusasi	1	5.6
Number of children		
1-3	13	94.2
4 and above	5	5.8
Age of current child		
1year	4	22.22
< 1 year	1	5.56
2 years	6	33.3
3 years	6	33.3
4years	1	5.6

Source: Field Work (2018)

Socio-Demographic Characteristics of Respondents

Table 2 shows that 61 percent of the respondents were aged 20-24 while 22 percent were aged 30-34 years. Among the respondents, almost sixty-seven percent had attained formal education up to the Junior High School level and 5.6 percent had no formal education. Eighty-three percent of the caregivers were Christians and 17 percent were Muslims. Half (50%) of the respondents were never married and 6 per cent were widows. With the monthly income of the respondents, 33 percent indicated they get about GHC150-GHC250 while 5.6 percent said they get less than GHC150. In terms of occupation, 4 out of ten (39%) of the respondents interviewed were unemployed and 28 percent were food sellers. Approximately, eight out of ten of the respondents resided at Cape Coast with the rest being residents of Agona, Elmina and Jukwa. Almost ninety

percent (88.9%) of the respondents were Fantes and the remaining were Dagombas and Kusases. Less than half of the women had 2 children and 6 percent had seven children. Thirty three percent of the respondents indicated their children were aged 2 and three years while 22 percent said their children are aged 1 year.

Thematic Framework

The study took a thorough reading of the transcripts to aid in identification of the basic themes that emerged from the transcripts. Issues were summarised, explained and organised to demonstrate the paramount issues that were identified from the data. Based on the analysis, the themes that emerged are presented under thematic framework (See Table 3).

Table 3: Thematic Framework

Themes	Sub themes
Social factors	Occupation
	Marital status
	Educational level
	Big family size
Cultural beliefs	Spiritual causes of diseases
	Food taboos
Feeding practices	Giving of colostrum
	Type of food given to children
	Frequency of breastfeeding

Source: Field Work (2018)

Social Factors Influencing Malnutrition

Several social factors have been identified as contributing to malnutrition among children under-five. From the study the social factors that were mentioned by the respondents are educational level of the mother, marital status and the occupation of the mother.

Low Educational level

There was generally low level of education among the respondents. The highest level of education was Junior High School. Five respondents had only primary level of education and one had no formal education. Generally, the respondents indicated that their low level of education has contributed to the malnourished status of their children because they could not understand the causes of their child's health condition and not knowledgeable on how to appropriately feed their children. This view is consistent with the literature that low level of education is a contributory factor to malnutrition (Babatunde & Qaim, 2010; Olwedo et al., 2008; Shrimpton et al., 2001; Webb & Block, 2004). These were some of the views that were shared by the respondents during the in-depth interviews:

A 31-year-old woman had this to say:

> *Madam you see… as an uneducated mother, I am not able to take good care of the child compared to how an educated mother will take care of her child. I am uneducated so I don't understand how to appropriately mix food to attain all the nutritional benefits in all the foods I give to my child (31-year-old woman).*

Another woman had this to say:

> *For me because I am not well educated that is why I cannot take good care of my children. My younger sister who is highly educated and a nurse is able to feed her children well and her children are looking nicer always. So I think education is very key since I don't understand how best to take care of the food needs of my baby (24 year old seamstress).*

To confirm this, a 27-year-old mother with JHS level of education said this:

> *Because I am not an educated mother I cannot understand what the nurses say very well when I send my child for weighing. And again, because I am not educated when I send the child to the hospital I sometimes don't remember how to mix the medicines they asked me to give to the child. So as for me I know because I am not educated that is why I find myself in this situation with a malnourished child (27-year-old unemployed).*

Marital status

In the literature, it has been established that marital status can influence the nutritional status of children (Abuya, Ciera, & Kimani-Murage, 2012). From the study, there were different views from the respondents on how marital status affects the nutritional status of their children. Some of the women had the conviction that if a woman finds herself in a happy marriage, then the children can enjoy but if a woman is not found in a happy marriage, then it is even better she stays alone and fends for her and her children.

The following quote illustrates what the women said concerning marital status and malnutrition:

> *For me I can say if I was married at least my husband would have been supporting me to take care of this baby and I am sure her health would have been better (34-year-old single lady). I can say because I am single that is why my baby is malnourished.*

Another woman said this:

> *Although I am married but my husband is not supporting me to take care of the child, My children don't get the kind of care they need. As for my husband he does not care whether the children have even eaten or not. He will go outside and eat and come and sleep. But if I was in a better marriage at least my child would have been enjoying and will not be looking thin like this (32-year-old married woman).*

A divorcee had this to share:

> *I divorced and when this happened sometimes I am unable to, provide what the child wants because the father has not provided the resources to feed them and I am not also having job and money. So, the child goes hungry most of the time (31-year-old Divorcee).*

Occupation

The occupation of a mother has been established as a contributory factor in the malnutrition status of children (Dapi, Monebenimp & Äng, 2018). The respondents expressed their views on occupation and malnutrition. They

indicated that the type of occupation could either have a positive or negative impact on the child. Again, the occupation status of the woman can also determine the nutritional status of the baby. Some of the mothers believed that being employed made it easier to be able to buy nutritious foods for the child. One of the women had this to say:

> *My daughter I am not working ooo…so I really find it difficult to take good care of him. Just last week we sent him to the hospital and they even told us to come back for review but I am not working so I could not get money to go. The father's work too is not that good so we are just managing small small (35-year-old woman, unemployed).*

A 46-year-old fishmonger– caretaker also had this to share:

I nearly gave up on taking care of this baby since the mother passed on. I am a fishmonger. If I don't do that we cannot eat. It is not even my own business. So even if this baby is sick sometimes I just have to close my eyes and pray that it doesn't get worse. And more to the point the fish I sell too I don't get enough time to take care of the baby like if I am someone who is doing my own business and it is flourishing (46-year-old fish monger).

As some of the women indicated, the kind of occupation can be a contributory factor. Others also looked at it from the general point of view. They were explaining that because they are working, there are two ways it affects malnutrition. It is either she will be too busy or she will get resources to take care of her children.

A petty trader said this:

> *Occupation can affect the nutritional status of the child in various ways. Me for example I am a petty trader I have to send these things around to even see whether people will buy it or not. Sometimes I roam around with this child almost the whole day and I will get just 3 Cedis which I have to use for us to eat. So, if I was gainfully employed I am sure my child will not be malnourished (28-year-old unemployed mother).*

A 33-year-old food seller also had this to share:

> *...As for occupation and malnutrition is very true it can affect it. As for me I sell food so it should not have been a big deal for me. But the challenge I have is that sometimes the child will be hungry and there are more people on me to buy the food so I have to serve them before I can get time to feed her. So, I am sure that is also a reason why she is not weighing how she should have weighed (33-year-old food seller).*

Big size of the family

According to Prvana et al. (2017), big family size can also affect the nutritional status of children under-five. Some of the respondents also indicated that the big size of the family they find themselves in is also a contributory factor to the malnourishment of their children. The respondents were of the view that because there is the need to feed more people, sometimes, the children do not get the required amount of food they are supposed to get. Others also

said that because they stay in a family house, the nutritious foods they buy for their children are taken by other family members.

The following quote confirms what the women said:

> *I have found myself in a bigger household and as a result sometimes the milk I buy meant for the child if I use some to prepare her food the rest get missing from the fridge. Due to that I stopped buying milk for the baby and I believe that is also affecting my baby but what can I say sister (24-year-old woman petty Trader with 3 children).*

This was also supported by another respondent:

> *If I tell you the things I go through in this family house is it not easy. The food that I cook for the children when I am not at home some of the children will take it and eat and my children will be starving. But what can you do. I am just praying we get some place and move so that my children will enjoy small. It is too much a problem for me (39 years old woman with 7 children).*

Another woman said:

> *Because we are in a large household there have been instances I cook and have to share it to all the members and children will not be satisfied. And all these affect their growth (33 years old woman).*

Cultural Beliefs and Practices Affecting Malnutrition

Cultural beliefs and practices have been shown as having an influence on malnutrition among children under-five (Boatbil, Guure & Ayoung 2014). From the study, the respondents expressed their views on the cultural beliefs and practices affecting malnutrition. The views they shared are family beliefs system, food taboos and spiritual beliefs on the causes and treatment of malnutrition.

Causes of malnutrition

Some of the participants expressed that malnutrition is caused by spirits and bad 'eye' from other people who can see in the spiritual realm.

Spiritual beliefs-'Bad Eye'

Some of the women explained that sometimes people who can see in the spiritual realm and are able to detect that the child will prosper in future try as much as possible not to let the child achieve the good things God has purposes for the child and the family at large.

A woman had this to say:

> *When the child feels sick I was advised to see a spiritualist or a prophet and if they say the sickness is coming from father's side then you need the father to be close to the child. But as for this child I was told by the spiritualist that the loss of weight is because of some spirit that has looked at my child so I need to let them do some spiritual bath of the child so that the child will be okay (24 years old seamstress).*

A 22-year-old woman also had this to share:

> *...Hmm I really believe someone has looked at her with a 'bad eye' because a man told me that. And I don't really understand what has happened to her and her health has been really poor. So, I strongly believe that is what has happened to my child because she has been falling sick very often. And I have been going to the hospital a lot because of her poor health (22-year-old, food seller).*

Another woman said this:

> *I have taken her to a prayer camp and the man of God told me someone has looked at her with "bad eyes". I was there for almost a month. He gave me some dry leaves that I was supposed to add to her water when bathing her every morning and evening and he gave some to her to drink after eating. He also put something around her waist. I have done all that they asked me to do but her health has not improved much (31-year-old).*

Food taboos

Nankumbi and Muliira (2015) indicated that food taboos have also been found as a factor influencing malnutrition among children under-five. Some of the respondents also indicated that there are food taboos in the family that also affect the nutritional status of the children. For example, some of them indicated that children are not supposed to eat eggs, while others said they forbid the eating of goat meat.

A respondent had this to say concerning food taboos:

> *It is only goat that I do not give to him... In our family we forbid the eating of goat (26-year-old Christian Fante woman, with no formal education).*

Similarly, a 31-year-old petty trader said this:

> *They say when the child is not grown you should not give him egg. And even when you give them some it should not be everyday but once a while. (31-year-old petty trader).*

Another mother said:

> *because she doesn't take certain kind of fish it becomes difficult to give her child those fish and even to use fish powder in the child's daily diets (33-year-old unemployed Christian Kusasi woman with primary level of education).*

In the same vein, a 22-year-old woman had this to say:

> *I was asked not to give my child egg by my mummy. She said eggs are not good for children particularly coming from the family. They end up getting rashes when they are given egg (22-year-old woman, Dagomba Moslem Woman with JHS level of education).*

Feeding Practices Influencing Malnutrition

From the study, it was found that the feeding practices influencing malnutrition are the giving of colostrum, the rate of breastfeeding and the type of food given to children.

Giving of colostrum

Colostrum is an important food component for new born babies as it protects them to get stronger immune system (Karigi et al., 2016). However, in the study, some of the women indicated that they did not feed their children with colostrum with the belief that colostrum is "dirty milk" and "waste" and for that matter should not be fed to infants. The following quote confirms the women's views why they did not give colostrum to their children.

A 22-year-old fishmonger had this to say:

> *When I was pregnant the nurse told me not to give my first breast milk to the baby because that breast milk wasn't healthy for the child. It was later that she asked me to give the breast milk to the baby. Also, I was told by a friend that the first milk that comes out with the yellow color is dirt and it shouldn't be given to a child (22-year-old fishmonger).*

A 33-year old trader also shared this:

> *When I was pregnant one of my colleagues who had just given birth told me that the yellowish breast milk that will come first from my breast I should not give it to the child because it is contaminated. Because of this I did not give the first breast milk to my child (33-year-old trader).*

Another woman had this to share:

> *...As for me the first breast milk that came out was looking yellowish so I saw it to be dirty. As a result of that I didn't give it to my child. It was later that the nurse asked me and*

I said I did not give it to my child and they were mad at me (25-year-old mother).

Frequency of breastfeeding and weaning

Nisar et al. (2016) indicated that breastfeeding is a cost-effective mechanism to reduce malnutrition in developing countries. The World Health Organization recommends that exclusive breastfeeding should be started soon after birth and continued for six months, followed by the addition of complementary food up to two years of age (WHO, 2011). The respondents shared their views on the frequency of breastfeeding and time for weaning their children. Some of them indicated that they stop breastfeeding due to their business and others also said they seldom breastfed their children. A 31-year-old trader shared this:

Because of my business I stop breastfeeding when they are 8 months old. I give them to my mother and I start my selling business because I cannot breastfeed them when I come back else they will have running stomach (31-year-old petty trader).

To reaffirm this, another mother said this:

I breastfeed him but not always. She enjoys food more than the breast milk and I am sure she would have been heavier if she added the breast milk too. The baby did not breastfeed when I tried to put the breast in her mouth petty (22-year-old mother, fishmonger).

Another mother supported this by saying:

> *The baby did not breastfeed when I tried to put the breast in her mouth petty (24 years mother).*

Type of food given to children

The type of food given to the children was also indicated as a reason why most children are malnourished.

Some mothers had these to share:

> *I give her Voltic but when I do not have money l give her sachet water and pour it into the Voltic bottle (22-year-old).*

Another woman shared this:

> *When my children were young l was giving them 'SAMA' but when they reached 1 year we started given them 'Tom Brown' and porridge (27-year-old woman).*

A mother who was also a seamstress said this,

> *I was not getting money to buy lactogen for my baby so the nurses said I could be giving the baby mashed kenkey with milk. But unfortunately, sometimes I cannot afford the milk so I just give the raw mashed kenkey like that to my baby (34-year-old mother).*

Discussion

This section of the Chapter Four discusses the findings of this study in relation to what other researchers have found. Issues discussed in this section include social factors, cultural and feeding practices influencing malnutrition among children under-five. The discussion was done in relation to both theoretical and empirical literature.

Social Factors Influencing Malnutrition

It was found from the study that there are social factors affecting malnutrition among children under-five. From the study, the social factors influencing malnutrition among children under-five are educational level, marital status, occupation and large family size. It was found that educational level of the mother is a social factor that can influence malnutrition among children under-five. The low educational attainment of mothers can result in poor understanding of their children's health-related problems and has been found to be associated with malnutrition of children under the age of five years (Khattak, Iqbal & Ghazanfar, 2017). The possibility of uneducated mothers to be able to clearly explain their child's health conditions to the physician can be problematic since they might not understand the child's health condition. Again, uneducated mothers might not be able to comprehend the health education they receive from health workers concerning how to feed their children with nutritious foods. The findings of this current study are consistent with the findings of studies done in other parts of the world, for example, in Bangladesh (Hasan, Soares, Magalhaes, Williams & Mamun, 2016), Pakistan (Khattak, Iqbal & Ghazanfar, 2017; Mahmood, Nadeem, Saif, Mannan & Arshad, 2016), Nepal (Mahmood, Nadeem,, Saif, Mannan, & Arshad, 2017), Nigeria (Sebanjo, Adeodu, & Adejuyigbe, 2009) and Ghana (Mohseni, Aryankhesal & Kalantari, 2017; Van de Poel, Hosseinpoor, Jehu-Appiah, Vega & Speybroeck, 2007).

According to this study, the occupational status of mothers was also a social factor found to have an influence on the nutritional status of their children. Specifically, mothers stated that when a woman is employed, she could get money and buy nutritious foods for her child. These findings

corroborate other studies on the influence of occupation and malnutrition among children under-five. For example, Fikadu, Assegid and Dubethis (2014) found that children whose mothers were working had easy access to food than children whose mothers were not working. Again, Dapi, Monebenimp and Ang (2018) stated that mothers who were peasant farmers had to sell some of their food in order to afford other needs of the household, rather than cooking it for the entire family to benefit from it. Also, Zaramba (2008), Das and Gulshan (2017), Mengistu, Alemu and Destaw (2013) and Lü, Zhai, Jin and Ge (2009) all found that mothers' occupation influences malnutrition among children under-five.

Marital status was found as a social factor influencing malnutrition among children under-five years. The views corroborate the findings of studies done in other parts of the world. For example, in Kenya, Abuya, Ciera and Kimani-Murage (2012) found that marital status could determine a child's nutritional status. The findings are still consistent with the findings of Teller (2000) in Ethiopia who also revealed that under-five malnutrition is influenced by marital status. Similarly, being a married mother was associated with good nutritional status among children under-five years in the Volta Region of Ghana (Appoh & Krekling, 2005). On the contrary, Nyaruhucha et al. (2006) in Tanzania revealed that mothers who are married were more likely to have undernourished children unlike those who were unmarried. This was explained that perhaps because of the cost of maintaining families, hence sometimes these families fail to produce nutritious supplements to the under-five children. Another possible explanation why children from married women are not malnourished could also be that the mothers in marital union are able to cater

for the children due to the support they get from their partners and this usually protects the children against malnutrition. Again, the women in marital union might also be monitored by their partners to feed their children well, unlike those who are single parents and will not necessarily be monitored by any person.

As found by Thuita, Martin, Ndegwa, Bingham and Mukuria (2015), fathers also play a key supportive role, providing financial and logistical resources for health care, and resources needed to ensure greater dietary diversity which can invariably reduce malnutrition among children. Again, Kansiime, Atwine, Nuwamanya Bagenda, (2017) indicated that most women in marital union usually get support from their husbands in buying food for their children and providing money for transport to young child clinics and this lead to a reduction in malnourished cases among children under-five. In addition, Nguyen, et al. (2017) also indicated that women who are in marital unions are able to provide good nutrition to their children.

It was found that large family size is also an important factor in malnutrition. This finding corroborates studies done elsewhere. For example, a study done in India showed that the overall prevalence of protein-energy malnutrition was significantly higher in infants from joint families than those from nuclear families (Nanada, 1999). Another study in Pakistan (Nisar et al., 2016) also found similar results. The possible reasons could be that those in large (extended) families, when they prepare their food for the children, other family members also tend to feed from the same food, which does not make the child to enjoy the right amount of food he or she is supposed to eat. Other children tend to share their food with colleagues.

The findings of this current study can be situated within the Ecosystems model of malnutrition, which states that children are not isolated beings; they exist not only as individuals, but also as members of families, as members of peer groups, and as members of general social systems and for that matter they depend on their parents. Due to this, mothers' social factors such as low level of education, unsupportive marital partner, big family size and occupational status have been found to be influencing the nutritional status of their children (Golden & Earp, 2012).

Cultural Beliefs and Practices Affecting Malnutrition

It was found from the study that the cultural beliefs and practices affecting malnutrition are the belief in spirits as the cause of malnutrition and food taboos. It was realised from the study that mothers attributed the malnourished status of their children to spiritual beliefs. This finding conforms to what was found in other studies. For instance, according to Boatbil, Guure and Ayoung (2014), people in the northern part of Ghana believed that child malnutrition was as a result of offending a 'Tobig god' by eating dry flour, eating meat sacrificed to 'Tobig god', sucking of 'bitter breast milk, eating chicken though he/she prohibits it, and 'Sama' (living things blocking breast milk). They believed that to be able to treat malnourished children, then it is imperative to consult the soothsayers to be able to know the exact cause of the child's problem and some of the ways to treat malnutrition was to pacify the offended gods, drinking water with fowl droppings in it and smearing grinded guinea corn malt on mothers' breasts.

This study found a common taboo that most infants and young children were not fed on eggs as it was believed that the eggs made the "tongue heavy"

hence would cause the child not be able to talk quickly or would delay. This belief compromised appropriate child-feeding as children missed on the nutrients provided by the eggs (Karigi, Mutuli & Bukhala, 2016; Martínez Pérez, & Pascual García, 2013).

The findings still substantiate the findings of Maduforo (2010) in Nigeria. Furthermore, Ekwochi et al. (2016) and Abdulai et al. (2017) have reported that cultural beliefs that prohibit the eating of eggs among children with the belief that it leads children to be thieves when they grow older have been a major contributory factor to child malnutrition. All these food restrictions and traditional beliefs have a negative effect on the nutritional status of the child. At that age, the child is supposed to eat a lot of food that are rich in protein and calcium to be able to grow well. Where there is shortage of food, there is bound to be problems of malnutrition. The optimal growth and development in childhood requires good nutrition as well as adequate health protection (Ogbeide, n.d). The possible reasons accounting for these findings could be the value some Ghanaian societies attach to their cultural values without pointing out what is good or bad.

As indicated in the conceptual framework that was used for the study, cultural beliefs and Taboos, such as the prevention of children from eating eggs and meats is a major factor accounting for malnutrition in some indigenous communities as well as communities who uphold these cultural beliefs and practices.

Feeding Practices

From the respondents' view, the feeding practices associated with malnutrition were not giving of colostrum to the infants, type of food given to children and exclusive breastfeeding as well as frequency of breastfeeding. According to Nisar et al. (2016), breastfeeding is a cost-effective mechanism to reduce malnutrition in developing countries. The World Health Organization recommends that exclusive breastfeeding should be started soon after birth and continued for six months, followed by the addition of complementary food up to two years of age (WHO, 2011). A previous study in Pakistan showed that about smaller portion of infants started breastfeeding within one hour of birth.

Another study in Pakistan showed that almost all infants are breastfed, but that inadequate feeding practices led to poor nutrition and child mortality (Pakistan Demographic and Health Survey, 2007). Exclusive breastfeeding for the first six months is the single most important factor in decreasing child morbidity and mortality (Nisar et al., 2016). Improving feeding practices will contribute to the achievement of the sustainable development goals. Hizel et al. (2006) established that mothers stopped breastfeeding because of the belief that their own milk wasn't useful for their babies. It caused diarrhoea and prevented baby's growth. In the same study, it was found that among the reasons mothers started complementary food was the belief that babies were still hungry or the babies did not suck breast milk.

The study revealed that some mothers regarded colostrum as bad or dirty, something which is not healthy for the new baby. This made the children miss the opportunity of receiving the anti-infective property of colostrum milk, hence undermining optimal infant feeding practices. In this study, there was a

noticeable practice of late initiation of breastfeeding and the giving of colostrum. This was as a result of cultural beliefs held against colostrum where the colostrum had to be first expressed several times and discarded and this delayed breastfeeding and also pre-lacteal feeding delayed initiation of breastfeeding. This reflects the findings of Karigi et al. (2016) who indicated that some women do not feed their children with colostrum with the belief that colostrum is "dirty milk" and "waste" and for that matter should not be fed to infants. Also, lack of knowledge led the mothers not feeding their infants on colostrum. This made the children miss the opportunity of receiving the anti-infective property of colostrum milk, hence undermining optimal infant feeding practices. In this study, there was a noticeable practice of late initiation of breastfeeding. This was as a result of cultural beliefs held against colostrum where the colostrum had to be first expressed several times and discarded and this delayed breastfeeding and also pre-lacteal feeding delayed initiation of breastfeeding.

The results on the feeding practices are also in line with UNICEF's (2004) framework on malnutrition. From the framework it is established that adequate supply of nutrients is especially important in early childhood, when many of the body's immune and cognitive functions are being developed. Adair et al (2013) added that once these systems are compromised, repair and catch up are very difficult and can lead to malnutrition.

Summary of Chapter Four

The chapter four presented the results of the study. Specifically, it presented the results on the social, cultural and feeding practices related factors affecting malnutrition among children under-five in the Cape Coast metropolis.

It also discussed the findings of the study in relation to the empirical studies and the theoretical and conceptual framework.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

This chapter outlines the summary of the major findings of the study. Conclusions are then drawn based on the major findings made. Based on the major findings made, recommendations are also made for policy and practice. Suggestions are then made for further research on social factors influencing malnutrition among children under-five.

Summary

Undoubtedly, the pervasiveness of child malnutrition in Ghana is high compared to the WHO benchmark. The Ghana Statistical Service (GSS), Ghana Health Service (GHS) and the ICF international (2015) state that children under-five classified as based on three anthropogenic indices of nutritional status (height-for-age, weight-for-height, and weight-for-age) reveals that 19 per cent of children were stunted, five percent were wasted, and eleven percent were underweight.

Notwithstanding the numerous studies conducted in Ghana on malnutrition among children under-five, the majority of such studies are quantitative in nature (e.g. Boatbil, Guure & Ayoung, 2014; Darteh, Acquah & Kumi-Kyereme, 2014; Darteh, Acquah, & Darteh, 2017; Poel et al., 2007; Rikimaru, et al., 1998) and none of these studies looked at how socio-cultural factors influence malnutrition among children under-five. This study, therefore, sought to explore how socio-cultural factors influence malnutrition among children under-five in the Cape Coast Metropolis one of the malnutrition endemic regions in Ghana. The study was guided by the Ecosystem Model of

Nutrition and the UNICEF Framework on Malnutrition. The study was qualitative in nature. The sample size used for the study was eigtheen women with malnourished children in the Cape Coast Metropolis seeking care for their children in the various health facilities. They were selected using the purposive sampling technique.

Summary of Key Findings

The main findings of the study relate to socio-cultural factors affecting malnutrition among children under-five. Firstly, it was revealed from the study that mothers with low educational level perceived that their low educational level caused their children to be malnourished. It was also evident that mothers reported marital status to be affecting the nutritional status of their children.

The present study also found that mothers perceived their occupational status as well as big family size to be affecting the nutritional status of their children negatively. Again, it was found that mothers perceived the cause of malnutrition to be spiritual. Also, food taboos such as the prohibition of children from eating eggs was a contributing factor to malnutrition. Furthermore, it was observed that poor feeding practices such as not giving of colostrum, the rate of breastfeeding and the type of food given to children are the feeding practices factors affecting malnutrition among children under-five.

Conclusions

Based on the results, it can be concluded that, some socio-cultural factors influence malnutrition among children in the Cape Coast Metropolis. The social factors affecting malutrition among children under-five are education, marital status, occupation and large family size. The cultural factors

influencing malnutrition among children under-five include food taboos and poor feeding practices.

Recommendations

Following on from the key findings and conclusions of the study, the following recommendations are made;

1. There should be intensification of child health education by community health nurses on the causes of malnutrition among children under-five.
2. Mothers should be empowered by the Ministry of Gender and Social protection to get themselves employed to be able to take good care of their children.
3. The Cape Coast Metropolitan Health Directorate should intensify public education on the need to send children to health facilities but not prayer camps when they are sick.
4. Mothers should be educated on cultural practices that forbid the eating of eggs and other nutritious foods.

Suggestion for Further Studies

5. Further studies should be conducted to assess the determinants of malnutrition at the district levels of the central region so as to broaden knowledge on the risk factors of malnutrition among children at the district and sub-district.

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APPENDIX A

INTERVIEW GUIDE

UNIVERSITY OF CAPE COAST

COLLEGE OF HUMANITIES AND LEGAL STUDIES

FACULTY OF SOCIAL SCIENCES

DEPARTMENT OF POPULATION AND HEALTH

TOPIC: SOCIO-CULTURAL FACTORS INFLUENCING MALNUTRITION AMONG CHILDREN UNDER-FIVE YEARS IN THE CAPE COAST METROPOLIS

Preamble:

This study generally seeks to explore how socio-cultural factors influence malnutrition among children under-five years in the Cape Coast metropolis. The information is required for purely academic purposes and nothing else. Information provided would be accorded the maximum confidentiality it deserves. Kindly be candid with your responses.

Time of interview [Begins]..... [Ended].....Date.....

SECTION A: BACKGROUND INFORMATION

As a way of starting our conversation, I want to know certain basic things about you by seeking your responses to the following questions.

1. What is your age? …….
2. What is your educational level? ……
3. What is your income level (monthly)?……
4. What is your religious affiliation? ……

5. What is your current marital status? ……
6. What is your occupation? ……
7. Where is your place of residence?……
8. Which ethnic group do you belong to?……
9. Number of Children ever born? [Probe for number of children surviving]
10. How old is/are your children?……

SECTION B: SOCIAL FACTORS INFLUENCING MALNUTRITION AMONG CHILDREN UNDER-FIVE YEARS

At this section, I want you to share your views about social factors influencing malnutrition among children less than five years.

11. How is your child health? (Describe elaborately the health condition of the child, disease frequency etc.)
12. What is the meaning and indicators of malnutrition in your community?
13. What are the major social factors influencing malnutrition?
    a. Probe marriage related issues (type of marriage, family composition etc.)
    b. Probe employment related issues (employment status, type of employment, feeding of child while at work)
    c. Probe educational related issues (literacy level, knowledge on malnutrition and personal hygiene)
    d. Probe living arrangements (probe single parenting)
    e. Probe income related factors (basic utilities, buying capacity/income)

f. Probe social amenities related factors (source of drinking water, health facilities in the community/society)

SECTION C: CULTURAL BELIEFS INFLUENCING MALNUTRITION AMONG CHILDREN UNDER-FIVE YEARS

At this section, I will like to ask you for your views on cultural beliefs and practices influencing malnutrition among children less than five years.

14. Which cultural practices are common in your community?

15. What is the major Cultural belief and practice influencing malnutrition?

a. Probe believes concerning the causes of childhood illness/malnutrition
b. Probe taboos (food taboos e.g not giving eggs to children)
c. Probe religious beliefs about certain foods (e.g Moslems not eating pork)
d. Probe social norms (time for weaning)
e. Means of treating malnutrition probe [Reliance on traditional healers for medication for malnourished children,]

SECTION D: FEEDING PRACTICES INFLUENCING MALNUTRITION AMONG CHILDREN UNDER-FIVE YEARS

Lastly, please I want you to share your views on feeding practices influencing malnutrition among children under-five years

16. Please say something about the feeding of your child

a. Probe (when you gave birth did you breastfeed immediately, did you give colostrum, did you practice exclusive breastfeeding, how do you feed your child while you are at work.

b. Probe (What type food they are fed?, Use of complementary feeding)

c. Probe (exclusive breastfeeding if less than 6 months)

d. Probe [What type of food do you prepare for your child (ren)]

e. Probe How and when they are fed?, Who feed them?

f. Probe **[**Whether additional and special food stuffs and types are provided for children less than five years?]

g. Probe [fruits and vegetables]

17. In your opinion, how can malnutrition be prevented?

Thank You.

APPENDIX B

ETHICAL CLEARANCE LETTER FROM UCC

UNIVERSITY OF CAPE COAST
INSTITUTIONAL REVIEW BOARD SECRETARIAT
TEL: 0332-133720 / 0207355653/ 0244207814
E-MAIL: irb@ucc.edu.gh
C/O Directorate of Research, Innovation and Consultancy
OUR REF: UCC/IRB/A/2016/200
YOUR REF:
OMB NO: 0990-0279
IORG #: IORG0009096
1ST FEBRUARY, 2018

Ms. Judith Arhin
Department of Population and Health
University of Cape Coast

Dear Ms. Arhin,

ETHICAL CLEARANCE –ID: (UCCIRB/CHLS/2017/29)

The University of Cape Coast Institutional Review Board (UCCIRB) has granted **Provisional Approval** for the implementation of your research protocol titled '***Socio-cultural factors influencing malnutrition among children under five in the Cape Coast metropolis***'. This approval requires that you submit periodic review of the protocol to the Board and a final full review to the UCCIRB on completion of the research. The UCCIRB may observe or cause to be observed procedures and records of the research during and after implementation.

Please note that any modification of the project must be submitted to the UCCIRB for review and approval before its implementation.

You are also required to report all serious adverse events related to this study to the UCCIRB within seven days verbally and fourteen days in writing.

Always quote the protocol identification number in all future correspondence with us in relation to this protocol.

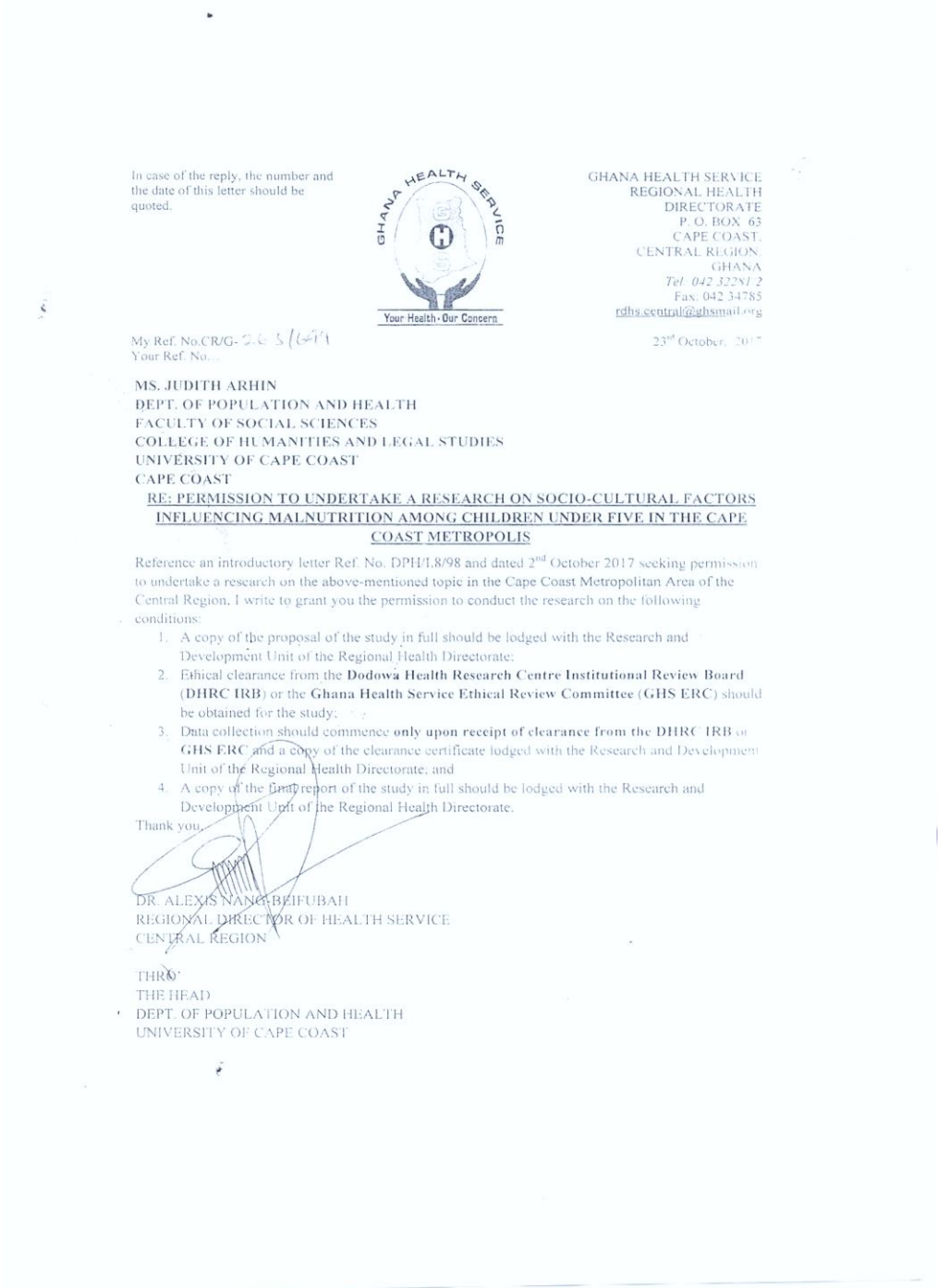
Yours faithfully,

Samuel Asiedu Owusu (PhD)
UCCIRB Administrator

ADMINISTRATOR
INSTITUTIONAL REVIEW BOARD
UNIVERSITY OF CAPE COAST
Date: 05/02/2018

APPENDIX C

ETHICAL CLEARANCE LETTER FROM GHS



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

GHANA HEALTH SERVICE
Your Health · Our Concern

GHANA HEALTH SERVICE
REGIONAL HEALTH
DIRECTORATE
P. O. BOX 63
CAPE COAST.
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My Ref. No.CR/G- 26 3/649
Your Ref. No...

23rd October, 2017

MS. JUDITH ARHIN
DEPT. OF POPULATION AND HEALTH
FACULTY OF SOCIAL SCIENCES
COLLEGE OF HUMANITIES AND LEGAL STUDIES
UNIVERSITY OF CAPE COAST
CAPE COAST

RE: PERMISSION TO UNDERTAKE A RESEARCH ON SOCIO-CULTURAL FACTORS INFLUENCING MALNUTRITION AMONG CHILDREN UNDER FIVE IN THE CAPE COAST METROPOLIS

Reference an introductory letter Ref. No. DPH/1.8/98 and dated 2nd October 2017 seeking permission to undertake a research on the above-mentioned topic in the Cape Coast Metropolitan Area of the Central Region, I write to grant you the permission to conduct the research on the following conditions:

1. A copy of the proposal of the study in full should be lodged with the Research and Development Unit of the Regional Health Directorate;
2. Ethical clearance from the **Dodowa Health Research Centre Institutional Review Board (DHRC IRB)** or the **Ghana Health Service Ethical Review Committee (GHS ERC)** should be obtained for the study;
3. Data collection should commence **only upon receipt of clearance from the DHRC IRB or GHS ERC** and a copy of the clearance certificate lodged with the Research and Development Unit of the Regional Health Directorate; and
4. A copy of the final report of the study in full should be lodged with the Research and Development Unit of the Regional Health Directorate.

Thank you.

DR. ALEXIS NANG-BEIFUBAH
REGIONAL DIRECTOR OF HEALTH SERVICE
CENTRAL REGION

THRU'
THE HEAD
DEPT. OF POPULATION AND HEALTH
UNIVERSITY OF CAPE COAST