

**THE PERCEIVED ROLES OF SPEECH AND LANGUAGE  
THERAPISTS IN THE MANAGEMENT OF CLEFT LIP AND/OR  
PALATE IN ACCRA, GHANA.**

**BY**

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**THIS RESEARCH DISSERTATION IS SUBMITTED TO THE  
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**DECLARATION**

I **JAMILA ABDULAI** do hereby declare that this dissertation which is being submitted in fulfillment of the requirements for the Master of science degree in Speech and language therapy is the result of my own research performed under supervision, and that except where otherwise other sources are acknowledged and duly referenced, this work has not previously been accepted in substance for any degree and is not being concurrently submitted in candidature for any degree.

I hereby give permission for the Department of Audiology, Speech and language therapy, to seek dissemination/publication of the dissertation in any appropriate format. Authorship in such circumstances to be jointly held between me as the first author and the research supervisors as subsequent authors.

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## **DEDICATION**

This study is dedicated to God, for being my rock throughout all these milestones. Also, to my family and closest friends.

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## TABLE OF CONTENTS

<b>DECLARATION</b> .....	<b>i</b>
<b>DEDICATION</b> .....	<b>ii</b>
<b>ACKNOWLEDGEMENTS</b> .....	<b>iii</b>
<b>TABLE OF CONTENTS</b> .....	<b>iv</b>
<b>LIST OF TABLE(S)</b> .....	<b>vii</b>
<b>LIST OF FIGURES</b> .....	<b>viii</b>
<b>LIST OF ABBREVIATIONS AND DEFINITION OF TERMS</b> .....	<b>ix</b>
<b>ABSTRACT</b> .....	<b>x</b>
<b>CHAPTER ONE</b> .....	<b>1</b>
<b>BACKGROUND</b> .....	<b>1</b>
1.1 INTRODUCTION .....	1
1.1.1 Cleft Lip and/or Palate: Epidemiology .....	1
1.2 PROBLEM STATEMENT .....	3
1.3 SIGNIFICANCE OF THE STUDY .....	4
1.4 AIMS .....	5
1.5 OBJECTIVES .....	5
1.6 RESEARCH QUESTIONS .....	5
<b>CHAPTER TWO</b> .....	<b>6</b>
<b>LITERATURE REVIEW</b> .....	<b>6</b>
2.1 INTRODUCTION .....	6
2.2 CLEFT LIP AND/OR PALATE .....	6
2.3 ASSOCIATED SPEECH PATHOLOGIES .....	7
2.4 MANAGEMENT OF CLEFT LIP AND/OR PALATE .....	9
2.5 THE ROLE OF THE SPEECH AND LANGUAGE THERAPIST .....	11
<b>CHAPTER THREE</b> .....	<b>13</b>
<b>METHODOLOGY</b> .....	<b>13</b>
3.1 INTRODUCTION .....	13
3.2 STUDY DESIGN .....	13
3.3 STUDY SITES .....	13

3.4 STUDY POPULATION.....	14
3.4.1 Inclusion criteria .....	14
3.4.2 Exclusion criteria .....	14
3.5 SAMPLING SIZE AND TECHNIQUE.....	14
3.6 PROCEDURE FOR DATA COLLECTION .....	15
3.7 DATA HANDLING.....	16
3.8 DATA ANALYSIS .....	17
3.9 TRUSTWORTHINESS.....	17
3.10 ETHICS .....	19
<b>CHAPTER FOUR.....</b>	<b>21</b>
<b>RESULTS .....</b>	<b>21</b>
4.1 INTRODUCTION.....	21
4.2 KNOWLEDGE FOR ALL THROUGH EDUCATION. ....	22
4.2.1 Training other healthcare workers .....	23
4.2.2 Creating awareness/ public sensitization .....	24
4.2.3 Availability and multidisciplinary management.....	25
4.3 POSTING FUTURE CLINICIANS .....	27
4.3.1 Distribution/coverage.....	27
4.3.2 Representation .....	29
4.4 KNOWLEDGE AND ENGAGEMENT WITH SLT AS A PROFESSION, AND THE ROLES OF THE SLT.....	30
4.4.1 Contact with SLTs .....	31
4.4.2 Perceived roles.....	31
4.4.3 General knowledge .....	33
4.4.4 Referrals.....	34
4.4.5 Early intervention .....	35
<b>CHAPTER FIVE.....</b>	<b>37</b>
<b>DISCUSSION .....</b>	<b>37</b>
5.1 INTRODUCTION.....	37
5.2 RESEARCH QUESTIONS .....	37

5.2.1 What do specialist doctors, NICU nurses and speech assistants involved in the multidisciplinary team management of CL+/-P believe speech and language therapists do currently in Accra?.....	37
5.2.2 What do the specialist doctors, neonatal intensive care unit (NICU) nurses and speech assistants involved in the multidisciplinary team management of CL+/-P believe speech and language therapists should do once SLT is available in future to support speech development in Accra? .....	41
<b>CHAPTER SIX .....</b>	<b>43</b>
<b>CONCLUSIONS, RECOMMENDATIONS AND LIMITATIONS .....</b>	<b>43</b>
6.1 INTRODUCTION .....	43
6.2 CONCLUSION .....	43
6.3 RECOMMENDATION.....	44
6.4 LIMITATION OF THE STUDY .....	44
<b>REFERENCES .....</b>	<b>45</b>
<b>APPENDICES .....</b>	<b>50</b>

**LIST OF TABLE(S)**

Table 4.1: Themes and sub-themes identified in data analysis .....21

**LIST OF FIGURES**

Figure 1. 1: Types of cleft lip and/or palate..... 7

Figure 4.1: Theme 1 with subthemes .....22

Figure 4.2: Theme 2 with subthemes .....27

Figure 4.3: Theme 3 with subthemes .....30

**LIST OF ABBREVIATIONS AND DEFINITION OF TERMS**

ASHA	American Speech Language and Hearing Association
CL+/-P:	Cleft lip and/or palate
ENT	Ears, nose and throat
GRAFT:	Ghana Reconstruction of Anomaly and Trauma Fund
MDT:	Multidisciplinary team
NHIS:	National Health Insurance Scheme
NICU:	Neonatal intensive care unit
SLP:	Speech and language pathology/pathologist
SLT:	Speech and language therapy/therapist
VPI:	Velopharyngeal insufficiency
VPD	Velopharyngeal dysfunction

## ABSTRACT

**Background:** Cleft lip and/or palate is a craniofacial abnormality, usually congenital, which occurs when the oral and nasal tissues do not merge during the development of the fetus. Research has shown that it has adverse effects on the child's feeding, dentition, respiration, hearing which in turn, affects speech.

For effective long term outcomes, research from developed countries show that cleft lip and/or palate management requires, a multidisciplinary approach involving plastic surgeons, maxillofacial surgeons, anesthetists, dentists, audiologists, dieticians, pediatricians and speech and language therapists amongst others.

**General Aim:** The aim of the study was to explore the perceptions of specialist healthcare professionals, involved in the management of cleft lip and/or palate in Accra-Ghana about the roles that speech and language therapists play within the multidisciplinary team.

**Methodology:** The purposive sampling technique was used to obtain nine (9) participants for the study. The inclusion criteria for participants included being specialist healthcare professionals involved in the management of cleft lip and/or palate. All participants undertook a semi structured interview, using a topic guide. The interviews were recorded and transcribed verbatim. Thematic analysis was used to analyze the data.

**Results:** Using thematic analysis, three (3) emergent themes, comprised of seven (7) sub-themes that addressed the research questions for the study were attained. The overarching themes were "knowledge for all through education", "posting future clinicians", "speech and language therapy as a profession and the roles of a speech and language therapist". The findings and implications for the development of speech and language therapy as part of the multidisciplinary cleft lip and/or palate care in Accra, Ghana are discussed.

## **CHAPTER ONE**

### **BACKGROUND**

#### **1.1 INTRODUCTION**

This chapter will focus briefly on the epidemiology of cleft lip and/or palate (CL+/-P) and discuss the prevalence rate, the multidisciplinary approach to the management of CL+/-P and the roles of the speech and language therapist (SLT). Additionally, the problem statement, significance of the study, aims and objectives of the study will be addressed.

##### **1.1.1 Cleft Lip and/or Palate: Epidemiology**

Cleft lip and/or palate are facial and/or oral malformations that occur when the tissues in the baby's face and mouth do not fuse properly during the embryonic stage (Buchman, Kasten, & Walborn, 2011; Boorman, 2007). Currently, there are no known causes however, CL+/-P maybe linked to a complex range of risk factors. These include maternal rubella, vitamin A and C deficiencies and irradiation (Akpuka, 2009). Cleft lip and/or palate can also be one of the signs associated with a range of congenital syndromes (Boorman, 2007). Cleft lip and/or palate maybe unilateral or bilateral, complete or incomplete, or primary or secondary (Peterson-Falzone, Hardin-Jones, & Karnell, 2010). Global estimates of CL+/-P suggests an incidence of 1:700 livebirths (Mossey et al., 2009), and Akpuka (2009) reports that the rate of CL+/-P varies from about 1:2000 in Africans; 4:1000 in Caucasians and 2-3:1000 in Japanese live births. Quantifying cases of CL+/-P in developing countries is complex, due to under-reporting and use of a range of diagnostic criteria (Mossey, Little, Munger, Dixon, & Shaw, 2009). Rates of CL+/-P vary around the globe, with some reported influence of race. In Ghana, currently there is no information on the incidence rate as no study is available to provide the numbers.

Persons born with CL+/-P have various associated complications, which affect their quality of life. Firstly, children with CL+/-P frequently undergo a series of reconstructive surgeries to repair the cleft. They may develop speech disorders, hearing impairment, breathing difficulties and incomplete or impaired dentition (Akpuka, 2009; Buchman, Kasten, & Walborn, 2011). They may also experience psychosocial difficulties, which may lead to difficulties with school achievement and self-esteem (Peterson-Falzone, Hardin-Jones, & Karnell, 2010). The complexity of CL+/-P requires that a multidisciplinary approach be adopted in its management.

The most favorable environment to care for persons with CL+/-P is a multidisciplinary cleft clinic, which hosts team members necessary in its management (Robin et al., 2006). It is provided to enable holistic management of the surgical repair and necessary follow up rehabilitation. Multidisciplinary teams commonly include a range of team members from the following disciplines: reconstructive plastic surgeons, maxillofacial surgeons, audiologists, speech and language pathologist (Furr et al., 2011; Peterson-Falzone, Hardin-Jones & Karnell, 2010; Phua & de Chalain 2008).

There is a high likelihood for children born with this anomaly to develop atypical speech patterns (Hogdkinson et al., 2005; Sell, 2008). Speech and language therapy (SLT) is needed to provide the necessary interventions to improve speech (Sell, 2008). Kesave, Punn, & Bedi, (2012) state that the aim of such interventions is to improve speech quality, including reducing airflow escape through the nasal cavity due to velopharyngeal incompetence (VPI).

Research from developed countries explores the various roles of speech and language therapists in CL+/-P management. The American Speech and Hearing Association (n.d), states that the primary roles a speech and language therapist brings on board include

screening, diagnosing and treating speech, language and feeding difficulties associated with CL+/-P.

According to Crowley et al. 2013, there are less than 10 speech and language therapists in Ghana with the majority residing in Accra, the capital city. As a result, SLT services within multidisciplinary rehabilitation teams for CL+/-P in Ghana have been limited. Services for CL+/-P management are generally poorly developed in low and middle income countries (Sell, 2008). D'Antonio and Nagarajan (2003), describe barriers to SLT services in India. They found that some of these were: misconceptions about causes of cleft; no or very few professionals, the existence of many languages and dialects and poor availability of resources. However, the barriers identified in India resonate with the current situation in Ghana from anecdotal evidence. In Ghana, some barriers to SLT services include: poor transportation systems, financial constraints, stigmatization due to religious and cultural beliefs, ineffective communication amongst healthcare professionals and a poor ratio of speech and language therapists to a population of nearly 26 million. (Owusu, 2016).

## **1.2 PROBLEM STATEMENT**

Cleft lip and/or palate results in a complex range of speech difficulties which include hypernasality, nasal emission, compensatory and maladaptive articulatory patterns impacting speech intelligibility and feeding (Peterson-Falzone, Hardin-Jones & Karnell, 2010). In many developed countries, a multidisciplinary cleft team is currently the most appropriate approach to the management of CL+/-P, and a speech and language therapist is vital to this team (Hodgkinson et al., 2005). Ghana, however, with a population of almost 26 million has extremely limited SLT services. According to a more recent study by Owusu (2016), there are approximately 5 speech and language therapists in the country, with most of them in the capital city. With few speech and language therapists available to provide services; healthcare providers involved in CL+/-P management are likely to have little or

no knowledge about the potential contribution and role that these professionals play in providing evidence-based treatment. As the profession of SLT is growing, with the first cohort of speech and language therapists almost trained to practice, their perceived understanding of the roles of the speech and language therapists in the holistic management of CL+/-P needs to be known, to improve the referral process and SLT services.

In many developed countries, a multidisciplinary cleft team is currently the most appropriate approach to management of CL+/-P, and a speech and language therapist is vital to this team (Hodgkinson et al., 2005). Research from developed countries and minority countries such as India, explore the various roles of speech and language therapists in cleft lip and palate management. Those studies have created some advancement in the delivery of services for persons with CL+/-P. Ghana, currently has no research available on the roles of speech and language therapists in cleft lip and palate management and hence, it is vital to conduct this study to improve our multidisciplinary service delivery.

### **1.3 SIGNIFICANCE OF THE STUDY**

It is expected that this study will provide data on what multidisciplinary service providers believe that speech and language therapists are, and should be doing to support the speech development for persons with CL+/-P in Ghana. It may further describe the perceived importance of SLT in CL+/-P, and raise awareness about the long term effects of communication disabilities in general on an individual's participation in the society. It is also expected that this this research will support the need for healthcare institutions to include speech and language therapists in CL+/-P management; to develop ways to improve the referral systems/ process and raise the awareness of SLT as the profession takes shape in this country. Finally, this research may be instrumental in assisting policy-makers to allocate resources to promote access to SLT services and facilities.

#### **1.4 AIMS**

The aim of the study was to:

1. Explore the roles that speech and language therapists play in CL+/-P management, as seen by other specialist healthcare professionals treating CL+/-P in Accra-Ghana.
2. Investigate the ways to promote SLT in healthcare facilities in Ghana.

#### **1.5 OBJECTIVES**

The following specific objectives were used to achieve the aim of the study:

1. To determine the knowledge of specialist healthcare professionals in CL+/-P management have of SLT roles and services.
2. To determine ways to increase effective multidisciplinary management of CL+/-P in the future essentially SLT services.

#### **1.6 RESEARCH QUESTIONS**

What do multidisciplinary service providers believe that speech and language therapists are and should be doing for speech development for persons with CL+/-P in Ghana?

1. What do multidisciplinary service providers, including specialist doctors, neonatal intensive care unit (NICU) nurses and speech assistants, believe that speech and language therapists currently do for speech development for persons with CL+/-P in Accra?
2. What do multidisciplinary service providers, including specialist doctors, neonatal intensive care unit (NICU) nurses and speech assistants, believe that speech and language therapists should do for speech development for persons with cleft lip and palate in Ghana as the profession grows?

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 INTRODUCTION**

In this chapter, CL+/-P and the accompanying speech defects and the need for SLT will be described in detail. Additionally, the holistic management of CL+/-P will be discussed, as well as the roles of the speech and language therapist in the management of CL+/-P.

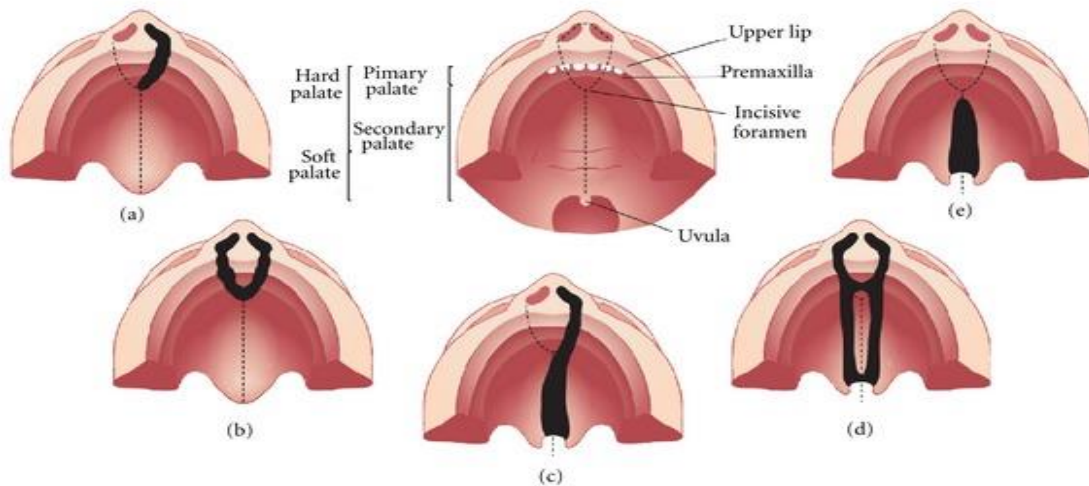
#### **2.2 CLEFT LIP AND/OR PALATE**

A cleft lip and/or palate is a common congenital birth defect found around the world (D'Antonio and Nagarajan, 2003). Cleft of the lip and/or palate may be a

Unilateral or bilateral: A unilateral cleft appears only on one side (left or right) and a bilateral cleft is on both sides.

Complete or incomplete: A complete cleft extends from the lip into the nose while an incomplete cleft does not extend into the nose from the lip.

Primary or secondary: A primary cleft palate affects the lip and/or alveolus and a secondary cleft palate is a cleft in the hard and or soft palate (Peterson-Falzone, Hardin-Jones, & Karnell, 2010).



Extracted from Brito, Meira, Kobayashi, Passos Bueno, 2012)

**Figure 1. 1: Types of cleft lip and/or palate.**

Figure 1.1 represents images of the common types of CL+/-P. (a) unilateral cleft lip with alveolar involvement; (b) bilateral cleft lip with alveolar involvement; (c) unilateral cleft lip associated with cleft palate;(d) bilateral cleft lip and palate; (e) cleft palate only.

The clefting may be accompanied with syndromes which arise as a result of genetic abnormalities (Hopper, Cutting, & Grayson, 2007)

Rates of CL+/-P vary around the globe, with some reported influence of race. Akpuka (2009) reports that the rate of CL+/-P varies from about 1:2000 in Africans; 4:1000 in Caucasians and 2-3:1000 in Japanese live births. However, there are no current published population studies of the incidence or prevalence of CL+/-P in Ghana. Cleft lip and/or palate is known to lead to some speech sound disorders due to malformations of the oral structures.

### **2.3 ASSOCIATED SPEECH PATHOLOGIES**

Speech outcomes depend on the timing of surgical intervention with the chances of an individuals' speech being disordered, increasing with late surgical intervention (Hopper,

Cutting & Grayson, 2007). Some compensatory articulation skills are also adopted prior to the reconstructive surgery, which need to be corrected through rehabilitative processes.

Children with CL+/-P encounter a range of difficulties both pre- and post-surgery. There is a complex and interconnected range of issues that children with CL+/-P can face. Some of these areas of difficulty, include speech disorders, hearing impairment, breathing difficulties, impaired facial growth, incomplete, or impaired dentition and issues with psychosocial wellbeing (Akpuka, 2009; Habel, Sell & Mars, 1996).

Typically speech and language therapists are involved in the management of both speech and feeding disorders for children with CL+/-P. The lips, nose, alveolus, teeth, hard palate, soft palate may all be involved in the condition (Akpuka, 2009). These articulators in the oral and nasal cavity are essential for speech production and efficient suction during feeding. Peterson-Falzone, Hardin-Jones, & Karnell (2010) outline a complex range of speech difficulties resulting from cleft palate, including hypernasality, nasal emission, compensatory and maladaptive articulatory patterns. These speech difficulties include disordered resonance, occurring due to the velopharyngeal sphincter's inability to adequately close (Hodgkinson et al., 2005). In speech production, the velum (soft palate) elevates and touches the pharyngeal wall (back of throat), this interaction seals the oral cavity from the nasal cavity, hence the accurate production of oral sounds and nasal sounds. A velopharyngeal dysfunction is when the velum cannot make complete/total contact with the pharyngeal wall, and allows air to escape via the nasal cavity causing speech to have nasal sounding speech. Velopharyngeal impairment is common, and often unresolved completely after surgery. To highlight this information:

“Even after surgery to close the cleft in the palate, approximately 20% of children will continue to have VPI and may require another surgery and/or speech therapy. The team’s

speech-language pathologist will determine if VPI is present and recommend appropriate management for your child." (American Speech and Hearing Center, n.d).

## **2.4 MANAGEMENT OF CLEFT LIP AND/OR PALATE**

Surgical interventions are the primary means of managing a CL+/-P (Boorman, 2007). Surgical interventions aim to normalize the facial appearance and speech to reduce stigmatization (D'Antonio and Nagarajan, 2003). Surgical intervention is necessary to tackle anatomical malformations in the facial and oral regions. Whilst surgery addresses the facial appearance quickly, addressing speech disorders which result from clefting can be more complex. The needs of a child with a CL+/-P extend beyond surgical repair; they also require rehabilitation and follow up to address their ongoing needs, including speech (Sell, 2008).

Managing the CL+/-P is important to address issues of stigma and promote inclusion and participation in the community. The inclusion and exclusion criteria for persons with disability may vary amongst societies (Wickenden, 2008). In Ghana, religious and cultural beliefs causes stigmatization (Owusu, 2016). Many families hide children with disabilities such as cerebral palsy, CL+/-P, to avoid being ridiculed, or alienated from their families (Stephens & Owusu, 2015). Cultural and religious myths on disability are due to generational curses and sins, only widens the gap for inclusion of persons with CL+/-P. The World Health Organization's (WHO) classification of disability, the International Classification of Functioning (ICF-CY), (WHO, 2007) is a framework that highlights a complex interaction of contextual factors, and participation. It urges healthcare workers to look beyond the physiological and anatomical aspects of an impairment. Fixing the cleft alone, without subsequent improvements in communication are unlikely to fully address stigma and inclusion. This conceptual framework aims to show the importance of environmental and personal factors on the person's quality of life. It shows a health

condition as an interaction between the impairment, restricted activities due the impairment and the ability to participate in the society. Clefting affects the face, which is an important contributor to an individual's concept of appearance and self-esteem (Sinko et al., 2005). Psychological care for persons with a CL+/-P begins even before birth, when families require counselling if the CL+/-P is identified in-utero (Hodgkinson et al., 2005). Once children with CL+/-P are born, parents may not freely venture outdoors with children with a craniofacial anomaly. Children with an unrepaired CL+/-P may have psychological difficulties which affects relationship building. According to Peterson-Falzone, Hardin-Jones, & Karnell (2010), the presence of a CL+/-P can affect parent-infant bonding, school achievement, self-concept and self-esteem across the lifespan. The rehabilitation process is dedicated to maximizing the functioning and health of a patient (Stucki et al., 2001).

The multidisciplinary team management of people with CL+/-P is "widely accepted as standard in most regions of the developed world" (Furr et al., 2011, p. 237). There are a number of important advantages of team care in CL+/-P which include: (1) the ability for professionals to directly consult one another on site before a conclusion is made, (2) increasing the chance of optimum care and outcomes and (3) offering a more practical and economical service model for the family, as being seen by the whole team is more convenient than individual healthcare appointments at different times (Peterson-Falzone, Hardin-Jones, & Karnell, 2010). The multidisciplinary team for cleft palate care typically encompasses a range of health professionals including reconstructive plastic surgeons, maxillofacial surgeons, audiologists, speech and language pathologists (Furr et al., 2011; Mossey et al., 2009; Peterson-Falzone, Hardin-Jones & Karnell, 2010). These many professionals must come together to work effectively as a team to make decisions about optimal care, both pre-surgery and for post-surgical rehabilitation.

Some international and local non-government organizations (NGOs) provide visiting services for short periods of time. Non-government organizations (NGOs) are significant contributors of healthcare provision in the developing world (Sell, 2008). Non-government organization (NGOs) typically bring in multidisciplinary healthcare teams for short-term missions, to provide services to persons with CL+/-P (Sommerland, 2009). In Ghana, these visiting organizations include Smile Train (Smile Train, 2013), Operation Smile and the Ghana Reconstruction of Anomaly and Trauma Fund (GRAFT foundation). These teams typically spend brief periods of time in host countries and address mainly surgical repair of the cleft (Antonio and Nagarajan, 2003). The short duration of the visits, coupled with a focus on surgical repair leaves little time for rehabilitation post operation, which often requires frequent intense work with clients for optimal outcomes (Sell, 2008).

## **2.5 THE ROLE OF THE SPEECH AND LANGUAGE THERAPIST**

According to the American Speech and Hearing Association (n.d), it is the primary role of a speech and language therapist to screen, diagnose and treat the speech, language, feeding and swallowing difficulties associated with CL+/-P. The first responsibilities of a speech and language therapist are assessing feeding, referrals, follow ups as well as counselling parents regarding the potential impact of CL+/-P (Peterson-Falzone, Hardin-Jones, & Karnell, 2010). In Ghana, there are very few speech and language therapists (Crowley et al., 2013). The way in which the speech and language therapists work in Ghana, may differ from the roles described in other higher income countries, as there are insufficient services to provide regular and ongoing therapeutic relationships with families (Wylie et al., 2018). It should be noted however, that to the speech and language therapist, the disfiguration to the palate are more considered than the lip. According to the American Speech and Hearing Center (n.d), speech development is usually not or almost not affected with a cleft lip. Children with a cleft lip and palate, or a cleft palate, are seen by a speech and language

therapist either to observe their speech development or to work on the compensatory strategies adapted to the anomaly. Some children will need further surgery, which maybe a recommendation given by the speech and language therapist after an assessment. Even though this is a necessary service, there are many difficulties related to service availability.

D' Antonio and Nagarajan (2003), describe barriers to SLT services in India, including social beliefs or misconceptions about causes of cleft; none or very few professionals; many languages and dialects and poor availability of resources. There is little research which reports the barriers to SLT services specifically in Ghana for people with CL+/-P. However, the barriers identified in India resonate with the current situation in Ghana. Owusu (2016) suggests that barriers to SLT services, in Ghana, generally include: poor roads to travel to the capital city Accra for services, cost as services are not covered by the National Health Insurance Scheme (N.H.I.S.), stigmatization due to religious and cultural beliefs, poor internet connectivity, and ineffective communication amongst healthcare professionals. One major barrier to services described by Owusu (2016) was the limited availability of speech and language therapists, with approximately 5 speech and language therapists to provide services for all people with communication disabilities in Ghana, not just those of CL+/-P. These barriers need to be addressed to promote speech and feeding rehabilitation post-surgical intervention and improve outcomes and the quality of life of persons with CL+/-P.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.1 INTRODUCTION**

This chapter discusses the method used in this study; the sites chosen for the study, the participants, inclusion/exclusion criteria, the sampling technique, the data gathering procedure, the instrument used, the data analysis and validation processes.

#### **3.2 STUDY DESIGN**

This study adopted a qualitative, exploratory study design using semi structured interviews and thematic analysis. An exploratory research was used because it is the approach that is likely to address novel area with little to no prior research (Brown, 2006). This method was chosen to explore the topic of perceived roles of SLT of healthcare professionals involved in the multidisciplinary management of cleft lip and palate in Accra, Ghana. A qualitative methodology was used in this study because it provides in depth descriptions of experiences (Creswell, 2007).

#### **3.3 STUDY SITES**

The study was conducted in Accra, Ghana. Data was collected from two sites: 37 Military Hospital and the Speech and Hearing Centre. The 37 Military Hospital is a United Nations (U.N) certified level 4 support facility within the sub region, which is the highest level of medical care facility, providing complete specialist treatment in the fields of medicine and surgery (37 Military Hospital, 2017). The Speech and Hearing Centre is a private practice in Accra, specialised in the provision of audiological and SLT services. Speech services for children with CL+/-P are provided at the Speech and Hearing Centre for a number of families. This center was chosen as there are currently no speech assistants of speech and language therapists currently practicing at 37 Military Hospital. Speech assistants are ...

### **3.4 STUDY POPULATION**

The population for this study were health professionals working in cleft lip and palate. The sample were healthcare professionals working in CL+/-P management in Accra.

#### **3.4.1 Inclusion criteria**

Inclusion criteria for the study included:

- (i) Being a healthcare professional from one of the professions identified in the sampling criteria. Sampling criteria were: speech assistants, neonatal intensive care unit (NICU) nurses, plastic surgeons, maxillofacial surgeons, pediatricians, E.N.T surgeons, and allied health staff (such a dietitians or audiologists).
- (ii) Healthcare professionals currently engaged in clinical services for CL+/-P management care Ghana
- (iii) Being employed, contracted to or having formal professional links with 37 Military Hospital or the Speech and Hearing Centre, Haatso.

#### **3.4.2 Exclusion criteria**

Exclusion criteria for the study included:

- (i) Healthcare professionals who were commencing work for the first-time within a multidisciplinary team for cleft lip and palate in the past 3 months.

### **3.5 SAMPLING SIZE AND TECHNIQUE**

Nine (9) participants from a cross section of occupations involved in the multidisciplinary management of CL+/-P were included in the study. Small subject numbers are frequently used in qualitative exploratory research to enable more detailed investigation with each participant (Crouch & McKenzie, 2006; Robinson, 2014). Participants were selected using purposive sampling. Purposive sampling is commonly used in qualitative research, particularly during early exploration of a topic (Oliver, 2006). This sampling technique was

chosen because, the researcher was looking for a particular population with certain characteristics (healthcare workers, managing CL+/-P, in Accra). Participants were selected from a subset of the general population of healthcare providers based on the objectives of the study. A sampling criteria was used to select participants from a range of occupational groups. Sampling criteria enable clear and visible choices about the sample in purposive research and are used to ensure a range of participants of interest are included in the study (Robinson, 2014). Sampling criteria for inclusion were: speech assistants, neonatal intensive care unit (NICU) nurses, plastic surgeons, maxillofacial surgeons, pediatricians and E.N.T surgeons currently involved in the multidisciplinary management of CL+/-P in Accra, Ghana. A minimum of one participant and maximum of two participants from each category were sampled. These categories were selected based on existing knowledge of the structure of the current structure of multidisciplinary teams in Accra (see table in APPENDIX III). Multidisciplinary teams commonly include team members from the following disciplines: plastic surgeons, maxillofacial surgeons, E.N.T. surgeons, pediatricians, nurses, audiologists, and speech and language pathologists (Furr et al., 2011; Peterson-Falzone, Hardin-Jones, & Karnell, 2010; Phua & de Chalain 2008).

### **3.6 PROCEDURE FOR DATA COLLECTION**

The nine (9) in depth interviews were conducted from June to July 2018. Eight (8) of the interviews were conducted at the 37 Military Hospital and the other at the Speech and Hearing Center.

Copies of the research proposal were submitted to the Institutional Review Board of the 37 Military Hospital to obtain clearance for the study (APPENDIX V) while permission was sought at the Speech and Hearing Center with letters from the department of Audiology, SLT. The purpose of the study was verbally discussed with participants who fit the inclusion/exclusion criteria and those who showed interest in partaking in the study booked

times and places suitable for them. Many participants, however, rescheduled twice or thrice due to the nature of their occupation. On the appointed day of the interview, participants were asked to read through the participant information sheet (PIS) and sign a consent form (APPENDIX I), indicating that they were providing informed consent, including an audio recording of the interview, before it began. Some participants upon reading the PIS refused to partake in the study. The participants then undertook, a semi structured interview, with the researcher, in a private setting of their choosing, using a topic guide (APPENDIX II). Topic or interview guides are used in semi structured interviews to ensure consistency in interviewing and in exploring areas related to the research questions (Flick, 2007)

During the interviews, participants were allowed to answer the questions in an open ended format. Probes were accompanied with questions asked and clarifications were sought by the researcher during the interviews. Also, interview sessions involved some level of education on the requirements to enter the newly developed SLT program, institutions where SLT services are available, warning signs for communication deficits in newborns and feeding assessments.

The interviews lasted between of 15 and 20 minutes. The audio recordings were saved with the corresponding unique identification number on the signed consent form and the response sheet. Data was transcribed verbatim into a response sheet. All data were collated and analyzed thematically.

### **3.7 DATA HANDLING**

Data was audio recorded, transcribed and organized into themes on a personal computer in an encrypted file and backed up on a weekly basis. All electronic files are password protected. Only the researcher and the research supervisors had access to the data. All hard

copies of data are being kept under lock and key. Unique identification codes were used on the consent form, response sheets and used to name audio recordings.

### **3.8 DATA ANALYSIS**

Thematic analysis was used. Thematic analysis is a commonly used method for identifying and analyzing patterns in qualitative data (Braun & Clarke, 2013). Braun and Clarke (2006) outline 6 phases in thematic analysis, which were used in the analysis of the data. The stages of thematic analysis used in this research were:

- (1) Familiarisation and data immersion, by repeated reading and re reading;
- (2) Coding by generating succinct labels for important structures of the data which are of relevance to the research question guiding the analysis;
- (3) Searching for themes by reflecting and reviewing significant, rational patterns in the data, then collating those relevant to the research questions;
- (4) Reviewing themes and ensuring that the themes correspond with the coded and complete data-set;
- (5) Defining and naming themes by writing a detailed analysis of each theme and formulating informative names for each theme and;
- (6) Writing up through telling a coherent story with the data in relation to existing literature by merging the analytic narrative and data extracts.

### **3.9 TRUSTWORTHINESS**

Trustworthiness is an important term in qualitative research, and is considered to be the equivalent of the concept of validity used within quantitative research. Lincoln and Guba (1985) proposed four measures for assessing trustworthiness: credibility, transferability, dependability and confirmability. These elements are considered below and include a

description of how these processes were used in this study, in attempts to address the issues of trustworthiness:

- *Credibility: truth value of your data and findings.*
  - In this study, member checking and peer examination was used to address credibility. Member checking involved revisiting some participants in the study to ensure the results tally with results of the researcher. Two participants were revisited and discussed the summary of their interview, none of these participants however, made any revisions to the previous results from the previous interview.

With peer examination, the evolving themes were audited by 2 peers with knowledge in qualitative research and healthcare, including SLT. Upon a peer examination, a new sub theme was found and one merged to another subtheme. To reach a consensus, members met to go through transcripts and discuss changes suggested.

- *Transferability: this is the applicability of the study findings to another population and over a timeframe.*
  - This study is a small exploratory study and is open to further extensive research. The study results are limited to the sample in this study, hence inferences aren't beyond this sample.
- *Dependability: the consistency of your findings.*
  - In this study, a code recode procedure was used, followed by a peer examination. Using code recode procedure, the researcher performed the analysis procedure and leaves them for some days. Without looking at the previous analyzed transcripts, the analysis process is done again and then

compared to assess its consistency. After this, a peer review of the coding and themes were undertaken.

- *Confirmability: which is the researchers' ability to be neutral, to avoid incidences of bias and or distortion.*
  - The researcher performed a confirmability audit, where selected members of the research team critically read the entire study, provided feedback on the coding and themes and discussed any possible bias emerging in the analysis. Creswell and Miller (2000) suggests that having several assessors, reduces the likelihood of biases. The research was read by 2 research supervisors to detect errors and bias of the study over the period of 6 months.

### **3.10 ETHICS**

This study adhered to the ethical standards provided by Ethics and Protocol Review Committee (EPRC) of the School of Biomedical and Allied Health Sciences (SBAHS) (APPENDIX IV), University of Ghana. Permission to carry out the study was sought from the study sites: 37 Military Hospital Institutional Review Board, Accra (APPENDIX V) and the Speech and Hearing Center. Information about the participants were kept confidential and their rights respected. Unique identification codes were generated and used on consent forms, response sheets and audio recordings to ensure complete anonymity of participants. An explanation of the study was given prior to the scheduling of appointments. A participant information sheet (PIS) was attached to the consent form and handed out prior to the interview: there was an explanation of the research, and participants were informed of their right to end their participation if they did not feel comfortable, although they were encouraged to participate. Those unwilling to give written consent were excluded from the study. Informed consent was obtained from participants before their enrollment into the study (see APPENDIX I). A purpose designed topic guide was used to interview the

participants. All hard copies are being kept under lock and key. Results were grouped according to themes, if any data is segmented, no identifiable quotes were used. No incentives were given. Venue, for the interview were chosen by the participants to ensure their comfort. There were few associated risks with the study.

## CHAPTER FOUR

### RESULTS

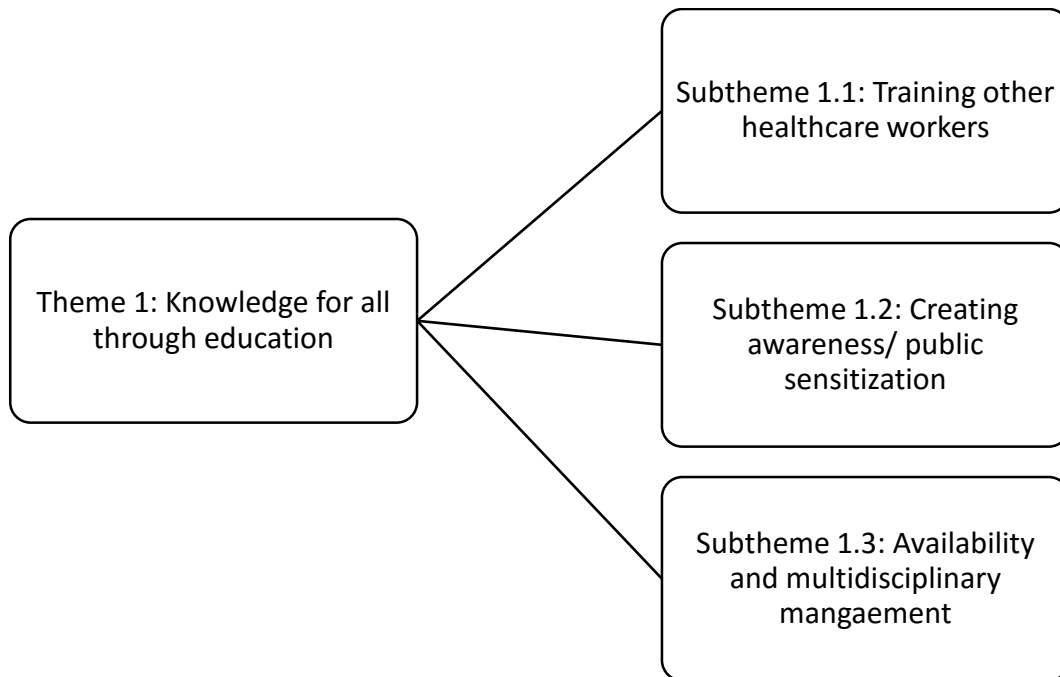
#### 4.1 INTRODUCTION

Thematic analysis, as described by Braun and Clarke (2006), was used to identify recurrent patterns within the transcribed interview data set. These recurrent concepts were then grouped into themes to represent the underlying thoughts, understandings and perceptions of the participants. Three (3) overarching themes were evident in the data. Each theme was comprised of a number of related sub themes, which made up the main theme. The main themes identified were Theme 1: “Knowledge for all through education”, Theme 2: “Posting/placement of future clinicians” and Theme 3: “speech and language therapy as a profession and the roles of the speech and language therapist”. Table 4.1 summarizes the themes and identifies the sub themes which made up each theme. The sections following describes each of the themes and sub-themes in more detail.

**Table 4.1: Themes and sub-themes identified in data analysis**

Theme	Sub-themes
Knowledge for all through education	Training other healthcare workers Creating awareness/ public sensitization Availability and multidisciplinary management.
Posting/ placement of future clinicians	Distribution and coverage Representation
Speech and language therapy as a profession and the roles of a speech and language	Contact with SLTs Perceived roles General knowledge Referrals Early intervention

#### 4.2 KNOWLEDGE FOR ALL THROUGH EDUCATION.



**Figure 4.1: Theme 1 with subthemes**

This theme, knowledge for all through education, represented the ability of a wide range of people to understand the roles of the speech and language therapist, not only when faced with a CL+/-P but with all speech and language deficits.

There appeared to be a general consensus amongst participants in this sample that, there is inadequate information about SLT and speech and language therapists in Accra, Ghana

The sub-themes within this broader theme describe the need for public knowledge about SLT, channels through which this knowledge may be imparted and the need for making known the availability of speech and language therapists/ and SLT services to help build knowledge of the profession and the work it undertakes. Subthemes comprising this overarching included training others, creating awareness/public sensitization and emphasis on availability of speech and language therapists.

#### 4.2.1 Training other healthcare workers

This sub theme reflected the belief of participants about the need for training other healthcare workers about a range of key elements related to SLT. Participants indicated that this type of training was integral to improving SLT access for people with CL+/-P. Specific elements that participants reported requiring training on, included: the roles of the speech and language therapist, and also, what and when to refer as recognition of early warning signs.

This criterion was limited to clinicians within the institution.

Participants identified a range of ways this education could be undertaken, including such as attendance at ward rounds, participation in clinical meetings, as well as lectures. This is illustrated by quotes from participants:

*‘So, what we can do, like this institution, so if you are here then the continuous lectures, you can do it yourself and announce your presence’ (ID 008, LINES 74-76)*

*‘opportunities to talk to medical groups like clinical meetings. Surgery clinical department meetings in 37 or at Korle-bu medical meetings, medical department meetings, pediatric units’ (ID 002, LINES 36-38)*

*‘If we have training, it will at least help those who will need your services. But in the absence of that, it will be better if such people are also within the facility so that day in, day out they can be involved with the care and serve as continuous resource for learning’(ID 001, LINES 52-54)*

Overall, participants appeared to be open to education about communication and SLT. Many appeared to welcome opportunities to broaden their knowledge to improve clinical outcomes in children with CL+/-P.

*'Maybe there are certain things we shouldn't do, or we are supposed to do. We may not know, with our general knowledge. But you have, I think being the specialist, I think you will know more and help us' (ID 005, LINES 26-28)*

#### **4.2.2 Creating awareness/ public sensitization**

Participants also indicated the need to increase public awareness of not only the availability of speech and language therapists, but also what services they offer in relation to CL+/-P, management.

This subtheme consists of nationwide education and advocacy initiatives to sensitize the public, such as SLT week, radio and television outreaches, as well as on social media. Some statements to illustrate are as follows:

*'So, awareness creation, radio programs, television programs, social media...stuff... write ups about it in the daily graphic for instance you can have one page' (ID 003 LINES 21-22)*

*'going to schools and colleges to let students be aware that there is this profession and its very new, so more people can go into that profession, so the numbers will improve.' (ID 003, LINES 23-25)*

The aim of these outreaches and sensitization initiatives is to create awareness in the public, such that parents and relations of affected children may know what sort of help is available to them, and also to make this help readily accessible. This is evident in a response illustrated below:

*'...I think create awareness so at least they know there is help because most of these children don't know there is help, so they just keep these kids inside. There is not much awareness about children with cleft and they don't think... you can see adults with cleft when you go for those missions and its very very very alarming that WOW...so all these, it's not only adult but children too. So, when you come in, your awareness will really help them' (ID 009 LINES 25-30)*

#### **4.2.3 Availability and multidisciplinary management**

This subtheme represented the view that an important step was education for the community and service providers that about the availability of speech and language therapists in institutions. This subtheme represented the view of participants that limitations in the availability of SLTs in institutions and workplaces, subsequently limited the knowledge and education about the role of the profession and hence, I major area in educating both the healthcare workers and the general public.

As participants described the need for educating the entire population and continues training of healthcare staff, most participants confirmed speech and language therapists were not available in the institution, and due to this non-availability, they had not had the opportunity to be involved in multidisciplinary management with one.

*'Unfortunately, because they are not readily available, their involvement in some of the care of the babies that I have managed has been very very minimal, if not absent' (001 LINES 13-15)*

*'...because trust me people do not know you're available.'* (ID 002, lines 39-40)

*'we should first get to know that you are around, that you are available. To me, that's the first thing, if people get to know that you are even there at all in the first place'. (ID 002, lines 33-34)*

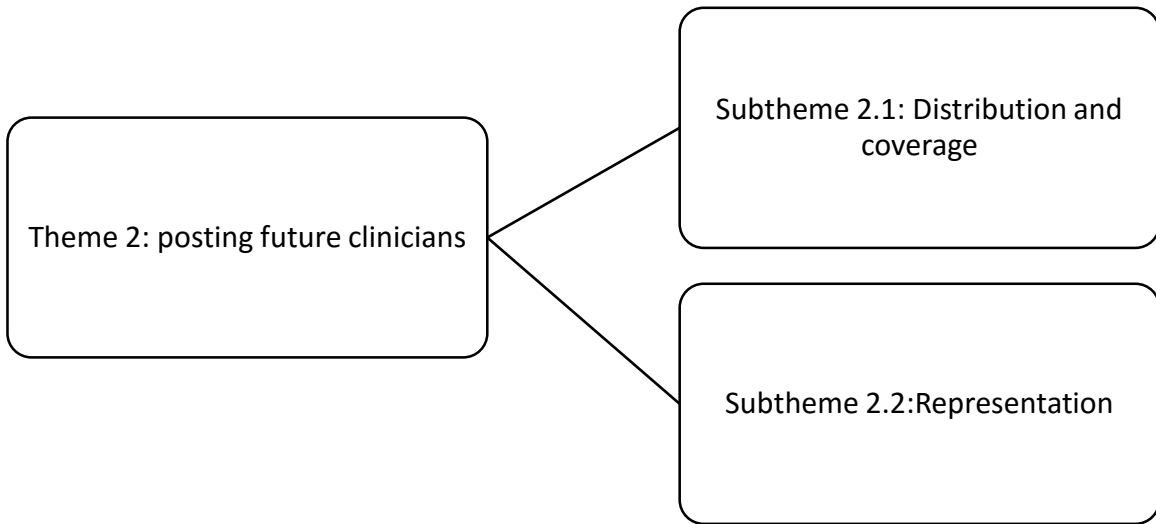
Out of 9 participants, only 2 participants (n=2, 20%), had any experience working with a speech and language therapist. This experience for both was during their residencies in Korle-Bu Teaching Hospital, where as stated earlier, most of the speech and language therapists in Ghana are concentrated.

*'as far as we knew, there was only one person who does it and I was told she has some long appointment book, so the patient I want her to see ASAP will not see her now. Meanwhile, later I heard there were 2/3 others..... And I was even impressed that there was even someone there in the first place' (ID 002, LINES 70-72, 74)*

Even with participants who had experience working with speech therapists in managing children with CL+/-P, this experience was limited by the scarcity of speech therapists.

Therefore, improving the number of speech therapists is therefore vital in improving clinical outcomes in the management of affected children. Additionally, this suggests that is an integral area to give attention to while educating the nation as a set up service/ service in its infancy.

### 4.3 POSTING FUTURE CLINICIANS



**Figure 4.2: Theme 2 with subthemes**

Most participants indicated that they felt that there was a need for the emerging profession to be distributed across the 10 regions in Ghana. Participants talked about the need for SLTs to be included in various departments where necessary, as it will go a long way to improve the perceived ideologies of SLT and improve proper education on SLT and the referral process.

Subthemes included in this overarching theme were the distribution/ coverage of SLTs and representation under this theme.

#### **4.3.1 Distribution/coverage**

Participants expressed a desire for speech and language therapists to be placed in a range of major hospitals across Ghana.

Participants indicated the need to distribute SLT services around Ghana to ensure that children with CL+/-P would not have to travel long distances to the few health institutions

in which the current few are clustered. This is illustrated in the following narratives by different participants:

*'I think if we have enough in each hospital, at least when you get such cases (cleft lip or palate), we can invite them in and also help us with the management' (ID 05 LINES 24-25)*

*'there are a lot of children with cleft problems, but they are outside Accra. So, I think when you come in, those who can't travel all the way to Accra, they can have access to speech therapy' (ID 009 LINES 13-15)*

Participants also identified the potential benefit of posting speech and language therapists to various regions included the potential for SLTS to train other people in regional areas.

One participants expressed herself as follows:

*'And then the when you go to the peripheries too, then they can now send people to you to train them' (ID007, LINES45-46)*

Others noted that SLT services should not only be limited to government institutions, but also be available in other sectors including private institutions, churches and special needs schools. Participants indicated that this was an important part of improving access to services. Two participants described their thoughts as follows:

*'Another aspect is which centers you will be available at, people might want to work in private hospitals... Ghana is not Accra, Kumasi or Cape Coast so it depends' (ID 002, LINE 60-62)*

*'You have to be everywhere, when you finish don't think of only government hospitals, erm, go to as many places, even churches and special needs schools' (003 LINE 37-38)*

#### 4.3.2 Representation

About 30% of the participants suggested that placement of speech and language therapists in particular departments within the institution would be vital in creating an opportunity for ongoing education. This is illustrated by statements from some participants:

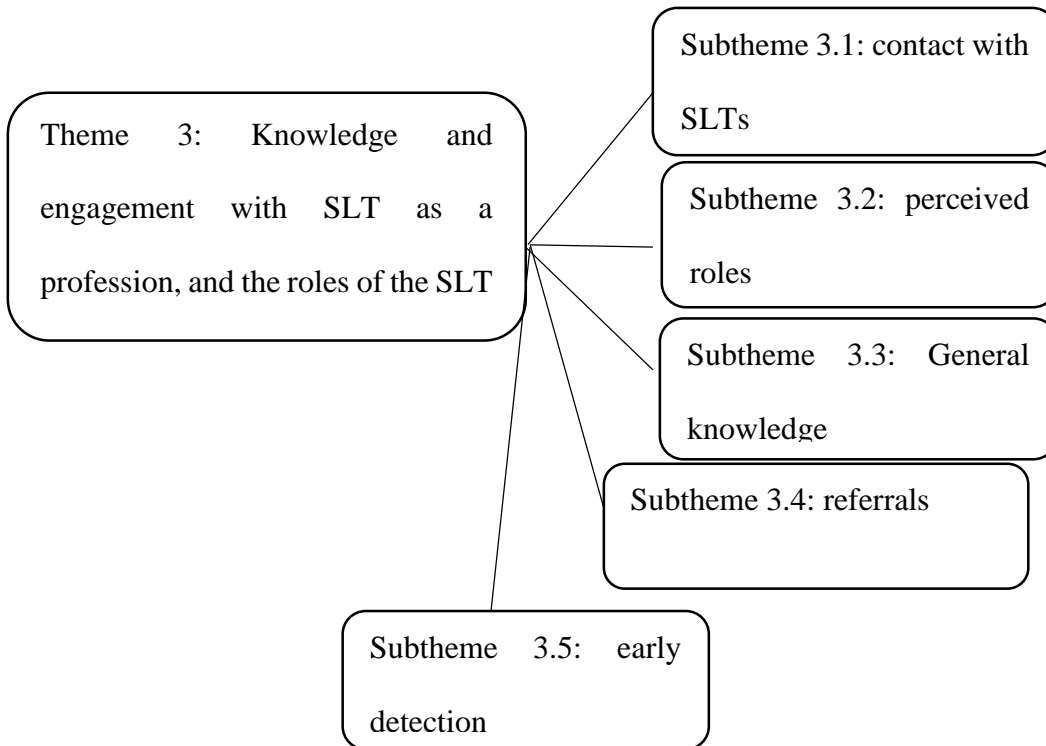
*'Now say if you're placed in any of the hospitals or in the pediatric wards, and day one we have a case of CL+/-P, then we start teaching the parents' right from the word go'(ID 004 LINES 52-54)*

*'it will be better if such people are also within the facility so that day in, day out they can be involved with the care and serve as continuous resource for learning'(ID 001 LINES 52-54)*

*'I think those of the ENT centers are supposed to have a speech and language therapist, who will help them' (ID007LINES 36-37)*

This theme illustrate the participants' perspective that SLTs need to be present in particular departments to enable holistic and early intervention, and is consistent with the

#### 4.4 KNOWLEDGE AND ENGAGEMENT WITH SLT AS A PROFESSION, AND THE ROLES OF THE SLT



**Figure 4.3: Theme 3 with subthemes**

This theme describes the knowledge participants reported to hold about the profession, including ways they interact and aim to engage with SLTs. Additionally, the theme explored the extent to which these service providers have contact with SLTs, in general and specifically, in CL+/-P management. Finally, it explored their perceived knowledge about referrals to the SLT and the importance of SLT in the initial stages of patient care.

This theme was comprised of 2 subthemes which explored their knowledge and actual and hypothetical engagement with SLT services: knowledge, roles, referrals and early intervention

#### 4.4.1 Contact with SLTs

This subtheme participants acknowledging knowing about the SLT profession and its importance in team management, as well as previous reported contact with an SLT. This includes a description of including prior experiences working with the SLT.

All the participants expressed that they knew of SLT as a profession however, many indicated that they had not had personal contacts with an SLT:

*'Yes, I know there is one on-going at Korle-Bu but I have personally not been in a session with patients before' (ID 004, LINES 17-18)*

*'No I haven't worked with one but I have heard about it' (ID 005, LINE 9)*

*'Yes, know about the speech therapist but I have never head the opportunity to work with one' (ID 008, LINE 13)*

When they were asked about working with an SLT however, only 2 of the participants had experience working with a speech and language therapist. With a majority of these participants referring to the Korle-bu teaching hospital, which is one of the very few clinics in Ghana, known to run a 'cleft panel clinic' monthly.

*Yes, I know about them. I've heard about them. I had a privilege of working with one person like that'. (ID 001, LINES 13, 18-19)*

*'Yes. I have worked with (one). When I was doing my residency, we had the multi-disciplinary team' (ID 006, LINE 12)*

#### 4.4.2 Perceived roles

Within this subtheme, participants described their own understanding of the roles of the with respect to cleft lip and palate management.

A number of participants described their view of the importance of SLT as part of CL+/-P management, as follows:

*'I think when we talk about cleft lip you play a very key role. You're so much important, in terms of the management of CL+/-P.'* (ID 006, LINE 30-31)

*'I know that especially in the management of CL+/-P, as part of the treatment, because depending on the timing you either affect the growth of the oral maxillofacial structures or the speech'* (ID 007, LINES 8-10)

*'So I know that even with the repair (that is, cleft palate repair), most at times the surgeon needs to involve the speech therapist'* (ID 006, LINES 26-27)

Many participants described their understanding of some specific roles of speech and language therapist, as shown below:

*'So I think they'll help clients, they'll teach, its either they teach clients how to talk or they'll help them if the speech is not or their talking is not coming out well, they will probably help them in pronunciations, yes! I think that's what they help them to do.'* (ID 004, LINES 20-22)

*'they assist them in terms of the pronunciation of most of the words.... I know your discipline is wide. But in terms of the specifics, I can't'* (ID 006, LINES 17& 21)

*'I know that they help children who have problems pronouncing words or talking. It's like a form of physiotherapy'* (ID 005, LINES 11-12)

*'I know the work with anyone with speech related problems.... They help them with their speech, and also with their feeding too'* (ID 009, LINES 8 & 10)

*'what I believe you do is, you have a major role when it comes to the texture of the food the patient can eat...So swallowing and the consistency of the food.'* (ID 008, LINE 15-16, 21)

In contrast with the responses above, some participants described having limited knowledge about the roles of the SLT due to limited contact with the professionals. This is illustrated in the statements below:

*'because we've not been working with such healthcare professionals, we don't know what their full capacity is and how well they will be able to help'* (ID 001, LINES 25-27)

*'they assist them in terms of the pronunciation of most of the words.... I know your discipline is wide. But in terms of the specifics, I can't.'* (ID 006, LINES 7&21)

When it came to addressing feeding and swallowing, 2 participants identified it as an integral role of the SLT. A few participants indicated surprise that it fell under the jurisdiction of the SLT or didn't identify this at all. A statement to support this is below:

*'you do feeding?'* (ID 004, LINE 24)

#### **4.4.3 General knowledge**

Within this subtheme, participants went beyond discussing the roles of the SLT in CL+/-P management to identify other areas of work in which SLTs work. The commonest condition identified were with accompanying statements to illustrate are given below:

- delayed/ impaired speech

*'maybe a child is of age, and you expect that it should be speaking by now, and he's not able to communicate. So, I think that you play a role in that'* (ID 006, LINES 22-23)

*'And I want to believe you assess the ability (of especially the kids) to speak. Whether it is delayed, whether it is an impaired one' (ID 007, LINES 16-17)*

*'so, children who are not speaking as at when the age they are to start speaking you have delayed development/ delayed milestones' (ID002, LINES 26-27 )*

- strokes

*'it's not only for pediatrics, it could be adults recovering from CVA's' (ID 003, LINES 42-43)*

*'it is not only cleft palate but also, they do CVA management. That is stroke patients.'*  
*(ID 008, LINES 18-19)*

- neuromuscular disorders

*'we had someone who was recovering from a neuromuscular condition and she had to be taught how to speak again, so this lady came from outside and for a short time she was with us, and she did a good job.'* (ID 003, LINES 28-30)

#### **4.4.4 Referrals**

Participants discussed referral to SLT services, both hypothetically, and in desire or when they have felt the need to refer.

*'We start with asking them to go see the ENT, then the ENT would see and bring back that there's nothing wrong, then we send the person to the speech and language therapists' (ID002 LINES 27-29)*

Most participants, not referring casa to the SLT. Limited knowledge of the responsibilities of the speech therapist and or the non-availability of speech and language therapists were

cited as reasons for not referring patients to a speech and language therapist or delayed referrals:

*'People who need you are not referred because they don't even know you exist' (ID 003, LINES 39-40)*

*'we send referrals to various units, so once we know you are available and we know what you can offer, then as soon as the baby comes, we refer such a baby to you' (ID 001, LINES 43-45)*

*'People should know what cases to refer to you' (ID 002, LINE 54)*

Patients in these situations therefore may not be referred for SLT services, even though participants clearly noted that the speech and language therapist was integral to the multidisciplinary team management. This increases the chances that clients do not attain optimal healthcare management. This is illustrated in the narratives by this participants:

*'You don't wait for trial and error, you try, and it doesn't work before you sit down and say eii... aaahh I need to refer this patient to the speech and language therapist. I think the referral system, as soon as a patient comes in, the doctor does his assessment, the speech and language therapist are involved, and the other team players are also involved' (ID 008, LINE 56-59)*

#### **4.4.5 Early intervention**

A recurring theme that was noted during interviews was the emphasis on early intervention by speech and language therapists in the management of CL+/-P, and its importance could not be over emphasized. It discussed the expectations of future clinicians to be included at the earliest possible times to ensure optimal outcome. Some participants described that this gives them better chances to learn about the professionals in this field and what they do,

which in turn sorts out the limited knowledge in the referral systems and processes needed for SLT. The extract below illustrates these responses:

*'as a multidisciplinary team management, the first day the patient comes in either at the OPD, the emergency or at the ward , I think the speech and language therapist needs to be involved right from the beginning' (ID 008, LINES 52-54)*

*'Now say if you're placed in any of the hospitals or in the pediatric wards, and day one we have a case of CL+/-P, then we start teaching the parents right from the word go' (ID 004, LINES 52-54)*

*'at least when you get such cases (cleft lip or palate), we can invite them in and also help us with the management of such babies. Yeah I think it will help them, from the scratch, if you're involved' (ID 005, LINES 24-26)*

*'I think right from the beginning, you have to be involved' (ID 001, LINES 48-49)*

The desire to involve SLT in multidisciplinary early intervention for cleft lip and/or palate was clearly articulated by many participants.

## CHAPTER FIVE

### DISCUSSION

#### 5.1 INTRODUCTION

The study aimed to explore the roles that speech and language therapists play in CL+/-P management, as perceived by other specialist healthcare professionals treating CL+/-P in Accra-Ghana.

The results provided in the previous section highlights how various healthcare professionals perceive the roles of speech and language therapists in the multidisciplinary management of CL+/-P and outline a range of suggestions about the ways to improve SLT services.

#### 5.2 RESEARCH QUESTIONS

##### **5.2.1 What do specialist doctors, NICU nurses and speech assistants involved in the multidisciplinary team management of CL+/-P believe speech and language therapists do currently in Accra?**

Speech and language therapy as a profession, has not fully attained recognition in the medical fields, where they complement each other: giving rehabilitation after the surgery and medication. As a result, the wide scope of the speech and language therapist in the team members, necessary management of CL+/-P have restricted knowledge on the roles and the scope of the speech and language therapist. The lack of knowledge is most likely linked to the limited size of the profession until now, as the available literature suggests that there are there are very few speech and language therapists (Crowley et al., 2013). There are approximately 5 speech and language therapists to provide services for a population of 26 million (Owusu, 2016). The ratio of speech and language therapist to the number of people in the country is overwhelming, and possibly way they are unavailable for education using a public health approach. Time may not be available to hold training sessions and outreaches

to continuously educate the public and healthcare professionals, as their caseload may be overwhelming.

There was, thus, an obvious gap in knowing of speech and language therapists in general and having had the opportunity to work with one. This gap could possibly be due to the small number of speech and language therapists currently, leading to a lesser need to find out what this healthcare professional does.

It is apparent that the participants are knowledgeable in their fields of work, however, it is also apparent that each healthcare professional has limited knowledge of the wide scope/roles the speech and language therapist plays. Their perceptions of the roles of speech and language therapist are mostly around their field of work usually due to single/ very few privileges of working with a speech and language therapist, attending conferences or training sessions with speech and language therapists in attendance or reading about them when gathering information on managing the patient. However, without regular contact with the SLT, they do not gain continuous hands on education on the appropriate roles and/or accurate perceived knowledge of what an SLT does in CL+/-P management or what this professional does generally. This hinders referrals because again, knowledge is limited, the healthcare workers related to the management do not have to know how on referring to the SLT.

There is a need for service providers to have a full scope of SLT to ensure appropriate and timely referrals as the profession grows. This maximizes early intervention and positive effects of therapeutic intervention.

Currently, the healthcare providers involved in the management of CL+/-P understand the importance and the members necessary to make up the multidisciplinary team. Available research on the multidisciplinary management of CL+/-P list professionals that make up the

team, and a speech and language therapist is always in the listed professionals. The multidisciplinary team for cleft palate care typically encompasses a range of health professionals including reconstructive plastic surgeons, maxillofacial surgeons, audiologists, speech and language pathologist (Furr et al., 2011; Mossey et al., 2009; Peterson-Falzone, Hardin-Jones & Karnell, 2010). Naturally, they have more information knowledge of their roles than other members. However, though a few could mention some perceived roles, they were non-specific. Mostly, their perception was working on sounds, teaching to speak or talk and helping with development of speech. Feeding, a specialty for speech and language therapists in the management of cleft palate was one area that many of the healthcare providers failed to mention or had no knowledge of. According to Peterson-Falzone, Hardin-Jones & Karnell, (2010), feeding and swallowing is an integral role of the SLT. This seems to be mainly attributed to lack of awareness of clinicians and where to find them. There are so few clinicians available for an overwhelming population, there are not enough resources to give in depth knowledge from health facility to health facility. Clinicians are not representative with regards to the number of major hospitals available.

However, the fact that a few were aware of other roles such as feeding/swallowing, is encouraging, and presumes that with enough education, most clinicians will be able to appreciate the spectrum of roles of a speech and language therapist and thus, speech and language therapists would be of more use in multidisciplinary team management of various disorders, and not just be limited to speech disorders.

A positive sign to note was that, the service providers were aware of the importance of multidisciplinary teamwork. Furr et al., (2011) suggests that multidisciplinary team management for persons with CL+/-P is a gold standard in most parts of the developed world. But until the profession grows sufficiently, enacting effective teamwork on a larger scale may prove challenging due to the pressure for services and frequently generalist nature

of speech and language therapists in situations where services are limited (Wylie et al., 2018).

Service providers also understood the need for the speech and language therapist to be involved in the management of persons with CL+/-P. This maximizes the outcomes intervention success. It makes the work of other team members convenient as they don't have to struggle to do the duties of another specialty they may not be fully knowledgeable off, as expressed by some participants.

It is interesting to note that, in seeking participants for the study, a few departments expressed their discomfort as CL+/-P was an area which is for plastics (plastic surgery), while others suggested that the plastic surgery unit was the area to go for information pertaining to this area. This backs the literature, which lists surgery as primary intervention but with limitations. According to Sell (2008), the needs of a child with a CL+/-P extend beyond surgical repair; they also require rehabilitation and follow up to address their ongoing needs, including speech. It does not give the holistic healthcare needs of the individual which the ICF-CY framework aims for, which is to urge healthcare workers to look beyond the physiological and anatomical aspects of an impairment but focus on the complex interaction of contextual factors, and participation (WHO, 2007). Many families hide children with disabilities such as cerebral palsy, CL+/-P, to avoid being ridiculed, or alienated from their families (Stephens & Owusu, 2015), hence surgery is necessary. However, the overall management of the client, including the psychosocial aspect of must be addressed to ensure that quality of life is be prioritized, rather than focusing on aesthetics.

**5.2.2 What do the specialist doctors, neonatal intensive care unit (NICU) nurses and speech assistants involved in the multidisciplinary team management of CL+/-P believe speech and language therapists should do once SLT is available in future to support speech development in Accra?**

In the future, all healthcare professionals believe that ongoing further education about the scope of SLT and availability of SLT services by presenting in their clinical meetings to give them a better understanding of when speech and language therapists should be called, consulted and when to refer patients to them. Participants described the need for training of this nature within and without the discipline of CL+/-P. Training of the healthcare workers will bring about great change, the family and clients may not willing attend after being referred, or understand that these services. Additionally, although training healthcare workers will bring about great change in increasing access of children born with CL+/-P to speech and language therapists, the family and clients may not willing attend after being referred, or understand that these services. Hence, educating for all is necessary.

Educating the public on SLT was also seen as an important step. It included the need to raise awareness of the existence of speech and language therapists: who they are, what roles they play and where to locate one. If public knowledge about SLT and it can offer is improved, then it is likely that, as services grow, children with CL+/-P would access services more frequently. A combination of factors need to be implemented in the near future to boost SLT in Accra, Ghana. This includes advocacy for people with communication disability and their rights to healthcare by not only the speech and language therapist but other professionals, who identified receiving tremendous help with clients having impaired communication. It is interesting to note that, the specialists were open to attending training sessions from speech and language therapists and were willing to book future sessions.

Owusu (2016) states an ongoing training of speech and language therapists in Ghana. As these future speech and language therapists commence duty, considering on the placements of the clinicians to vast geographical locations should be made. Future clinicians should be spread widely across the regions and involved in the multidisciplinary management of CL+/-P in these area or visit rural areas to provide care. A nationwide distribution of speech therapists will ensure ready availability of speech and language therapists to children born with cleft lip and palate. It will ensure holistic management without these children having to travel long distances to tertiary centers in the capital in order to receive care, or having to wait till an outreach program is brought to their region, by which time the help may be coming too late for them.

It would also be an added advantage if assistants from various backgrounds are being trained to improve accessibility to speech and language therapists and thus improve speech and language therapist to patient ratios across the nation

The literature suggests some limitations to NGO's such residing in host countries for short time spans and mainly addressing surgical intervention of the CL+/-P (Antonio and Nagarajan, 2003). With more speech and language therapists available in the future, local SLTs can partner with visiting CL+/-P teams to ensure people have access to ongoing SLT services after visiting NGO's have left. This may offer better long term holistic care.

Personally, I believe that training up and coming medical professionals, developing courses for medical schools, nursing schools and rotations in hospitals will go a long way in improving the knowledge base of the up and coming healthcare professionals.

In the long term, it's the patients who lose the benefit of a speech and language therapist and hence a more comprehensive care

## **CHAPTER SIX**

### **CONCLUSIONS, RECOMMENDATIONS AND LIMITATIONS**

#### **6.1 INTRODUCTION**

This chapter is a summary of all the findings, recommendations and the limitations associated with this study.

#### **6.2 CONCLUSION**

Speech and language therapy is a new field of study in Ghana. Studies in developed countries provide general roles of the speech and language therapist in the general context and in areas of specialty.

However, Ghana and many parts of Africa have little research into the field of the SLT and their roles in CL+/-P. This study aimed to understand the roles of the speech and language therapists in cleft lip and or palate management, as perceived by other healthcare professionals in the multidisciplinary team and investigate ways to improve SLT services.

Findings explored the perceived understanding of healthcare professionals on the current roles and future of SLT and generate opinions on how to improve access to SLT services for clients who need it. The study findings included the need for the speech and language therapists to educate both health professionals and the public, to ensure appropriate geographical distribution and coverage of the future SLT services. This will ensure roles of the speech and language therapists and referral systems for SLT services are clarified to guarantee services across the scope of practice are utilized and well-integrated into health care systems.

### **6.3 RECOMMENDATION**

With the findings from this study, both newly qualified and the few existing speech and language therapists should be further informed about the need for both training and advocacy. As the profession of SLT grows, regular training should be a focus to ensure both health professionals and the community are well informed about the scope of practice and the availability of services.

Secondly, this research supports the need for stronger backing from both the education and health sector to give more attention to communication disabilities and rehabilitation: to ensure that training of more professionals continues, and financial backing to ensure they reach the peripherals of the country.

Lastly, the findings from this research seeks to understand the perceived roles of SLT currently while this area of study is in its infancy and to find out ways to improve the services in the future as it grows. While these professionals will want these SLTS to perform these roles, if they do not fit in the scope of SLT practice, then said roles will not be done. Rather education on appropriate roles should be given.

### **6.4 LIMITATION OF THE STUDY**

This study is a qualitative enquiry with a narrow sample and findings, hence cannot be generalized to all healthcare practitioners in the management of CL+/-P. The study also targeted healthcare workers in two institutions institution and hence, it cannot be used to measure the beliefs of others in the various healthcare organizations equipped with the resources to manage CL+/-P.

Secondly, being a new speech and language therapist and researcher, the research may be subjected to some level of researcher bias and gaps in data analysis and presentation of results.

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## APPENDICES

### APPENDIX I: CONSENT FORM

Title: the perceived role of speech and language therapists in the management of cleft lip and/or palate in Accra, Ghana.

Principal investigator: Jamila Abdulai

Address:

Department of Audiology, Speech and Language Therapy

School of Allied Health Sciences

College of Health Sciences

The University of Ghana

PO Box KB 143

Korle Bu

Accra, Ghana

#### **General Information about Research**

Dear Sir/Madam,

Please take some time to read through this information. If there is a need for clarification, please feel free to ask the researcher.

I am a graduate student of the Department of Audiology, Speech and Language Therapy within the School of Biomedical and Allied Health Sciences, University of Ghana. I am undertaking a research on the perceived roles of speech and language therapists in the management of cleft lip and/or palate. This research project is part of my Master of Science degree studies in speech and language therapy.

The purpose of this study, is to explore the roles that speech and language therapists play in cleft lip and/or palate management as seen by other specialist healthcare professionals treating cleft lip and/or palate in Accra-Ghana.

The research will ask to you to spend 45 minutes to answer a few questions in a confidential face to face interview session. The interview will be arranged for at date, time and place which is suitable to you. The interview will be audio recorded to help the accuracy of our research. Only the researcher and her supervisors will have access to the audio recordings.

### **Possible Risks and Discomforts**

There are no risks for participants in this study.

### **Possible Benefits**

This study will provide data on what multidisciplinary service providers believe that speech and language therapists are, and should be doing, to support the speech development for persons with cleft lip and palate in Ghana. It will provide further information about the importance of speech and language therapy in cleft lip and/or palate and raise awareness about the long term effects of communication disabilities in general on an individual's participation in the society. It will suggest to healthcare providers to add speech and language therapists in cleft lip and/or palate management and ways to improve the referral systems/ process and raise the awareness of speech and language therapy as a profession as it takes shape in this country. This research work will help to establish the need for policy-makers to allocate resources to promote easy access to speech and language therapy services and facilities.

### **Voluntary participation and right to leave the research**

Being in this study is completely voluntary. You do not have to participate. You can stop the questions at any time during the interview without any ill feeling. If you do not wish to finish answering the questions, please tell the interviewer that you wish to stop. The information that you have given will then not be included in the study and you will be free to go.

### **Confidentiality**

Once you have finished answering the questions and left the place of interview, the interview will be transcribed and stored in an encrypted file. No-one other than the research team will see the transcripts.

The information collected from individuals in the study will remain confidential. The findings of the study may be published, but no one person who has participated in the study will be able to be identified. The data gathered will be discarded after 2 years.

### **Compensation**

No form of compensation will be provided in this study.

### **Contacts and Additional Information**

If you would like to know more about the study, or have any questions, please ask the interviewer.

Please feel free to contact: Jamila Abdulai 0208505739 or via email: [jabdulai003@st.ug.edu.gh](mailto:jabdulai003@st.ug.edu.gh)

Karen Wylie (principal supervisor): +233244332822 or via email: [publichealth.slt@gmail.com](mailto:publichealth.slt@gmail.com)

Nana Akua Victoria Owusu(secondary supervisor): +233244028346 or via email: [navowusu@gmail.com](mailto:navowusu@gmail.com)

Prince. Y. Ashitey (IRB Administrator)- 024 300 4247

### **Your Rights as a Participant**

This research has been reviewed and approved by the 37 Military Institution Review (37MH-IRB). If you have any questions about your rights as a research participant, you can contact the IRB Office between the hours of 7:30am – 3:00pm through the landline 0302 769 667 or IRB Administrator (Prince Yaw Ashitey- 024 300 4247) or email: [irbmilhosp@gmail.com](mailto:irbmilhosp@gmail.com)

### **VOLUNTEER AGREEMENT**

The above document describing the benefits, risks and procedures for the research title the perceived roles of speech and language therapists in the management of cleft lip and/or palate in Accra, Ghana has been read and explained to me. I have been given an opportunity to have any questions about the research answered to my satisfaction. I agree to participate as a volunteer.

\_\_\_\_\_

\_\_\_\_\_

Date

Name and signature or mark of volunteer

If volunteers cannot read the form themselves, a witness must sign here:

I was present while the benefits, risks and procedures were read to the volunteer. All questions were answered and the volunteer has agreed to take part in the research.

\_\_\_\_\_

\_\_\_\_\_

Date

Name and signature of witness

I certify that the nature and purpose, the potential benefits, and possible risks associated with participating in this research have been explained to the above individual.

\_\_\_\_\_

\_\_\_\_\_

Date

Name and signature of Person Who Obtained Consent

## APPENDIX II: TOPIC GUIDE

### Section 1 (introduction- settling in)

1. What is your area of specialty?
2. What hospital do you practice in?
3. What is your role in relation to the management of cleft lip and/or palate?

### Section 2 (current knowledge of SLT)

1. Do you know about speech-language therapy as a profession?
2. What do you believe they do generally?
3. Currently, what do you believe they do for persons with cleft lip and/or palate?

### Section 3 (improving SLT- involvement in future)

1. In future, when there are more trained speech-language therapists, how do you believe they can support in managing speech/ feeding development of persons with cleft lip and/or palate?
2. How do you believe they can facilitate speech-language therapy involvement
3. How do you believe they can facilitate the referral process?

### Section 4 (conclusion)

Is there any other relevant information you wish to add?

APPENDIX III: SPECIALIST HEALTH PROFESSIONS AND NUMBER OF PARTICIPANTS

NUMBER	HEALTH PROFESSIONS	NUMBER OF PARTICIPANTS
1.	PLASTIC SURGEONS	1
2.	PEDIATRICIANS	1
3.	N.I.C.U NURSES	2
4.	DIETICIAN	1
5.	ANESTHETIST	1
7.	ORTHODONTIST	1
8.	MAXILLOFACIAL SURGEON	1
9.	SPEECH ASSISTANT	1
		TOTAL=9

APPENDIX IV: ETHICAL CLEARANCE FROM THE SCHOOL OF BIOMEDICAL  
AND ALLIED HEALTH



**UNIVERSITY OF GHANA**  
**SCHOOL OF BIOMEDICAL AND ALLIED HEALTH SCIENCES**

30<sup>th</sup> January, 2018.

Ref. No.: .....

Ms. Jamila Abdulai  
Dept. of Audiology, Speech and Language Therapy  
SBAHS,  
Korle-Bu.

Dear Ms. Jamila Abdulai,

**ETHICS CLEARANCE**

Ethics Identification Number: SBAHS – ASLT/10385175/SA/2017-2018.

Following a meeting of the Ethics and Protocol Review Committee of the School of Biomedical and Allied Health Sciences held on Tuesday 30<sup>th</sup> January, 2018. I write on behalf of the Committee to approve your research proposal as follows:

**TITLE OF RESEARCH PROPOSAL: THE PERCEIVED ROLES OF SPEECH AND LANGUAGE THERAPISTS IN THE MANAGEMENT OF CLEFT LIP AND/OR PALATE IN ACCRA, GHANA.**

This approval requires that you submit three-monthly review reports of the protocol to the Committee and a final full review to the Committee on completion of the research. The Committee may observe the procedures and records of the research during and after implementation.

Please note that any significant modification of the research must be submitted to the Committee for review and approval before its implementation.

You are required to report all serious adverse events related to this research to the Committee within seven (7) days verbally and fourteen (14) days in writing.


As part of the review process, it is the Committee's duty to review the ethical aspects of any manuscript that may be produced from this research. You will therefore, be required to furnish the Committee with any manuscript for publication.

This reviewed report is valid till 31<sup>st</sup>. August, 2018.

Please always quote the ethical identification number in all future correspondence in relation to this protocol.

Thank you.

Yours sincerely,

  
Dr. S. D. Amanquah  
(Chairman, Ethics and Protocol Review Committee)

Cc: Dean  
Head, Dept. of Audiology, Speech and Language Therapy  
School Officer

**COLLEGE OF HEALTH SCIENCES**

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P. O. Box KB 143, Korle Bu, Accra, Ghana.  
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• Website: [www.chs.ug.edu.gh](http://www.chs.ug.edu.gh)

APPENDIX V: ETHICAL CLEARANCE FROM THE 37 MILITARY HOSPITAL



**Institutional Review Board**  
37 Military Hospital  
Neghelli Barracks  
ACCRA  
Tel: 0302 769667  
Email: irbmilhosp@gmail.com

18 June 2018

**37MH-IRB IPN 266/2018**

**ETHICAL CLEARANCE**

On 5<sup>th</sup> June 2018, the 37 Military Hospital (37MH) Institutional Review Board (IRB) at a Board Meeting reviewed and approved your protocol.

**TITLE OF PROTOCOL: The Perceived Roles of Speech and Language Therapists in the Management of Cleft Lip and/or Palate in Accra, Ghana.**

**PRINCIPAL INVESTIGATOR: Jamila Abdulai**

Please note that a final review report must be submitted to the Board at the completion of the study.

Please report all serious adverse events related to this study to 37MH-IRB within seven (7) days verbally and fourteen (14) days in writing.

This certificate is valid until 4<sup>th</sup> June 2019.

  
**DR EDWARD ASUMANU**  
(37MH-IRB, Vice Chairman)

**37 MILITARY HOSPITAL**  
**INSTITUTIONAL REVIEW BOARD**  
DATE 18-06-18

Cc: Brig Gen MA Yeboah-Agyapong  
Commander, 37 Military Hospital

APPENDIX VI: RESPONSE SHEET