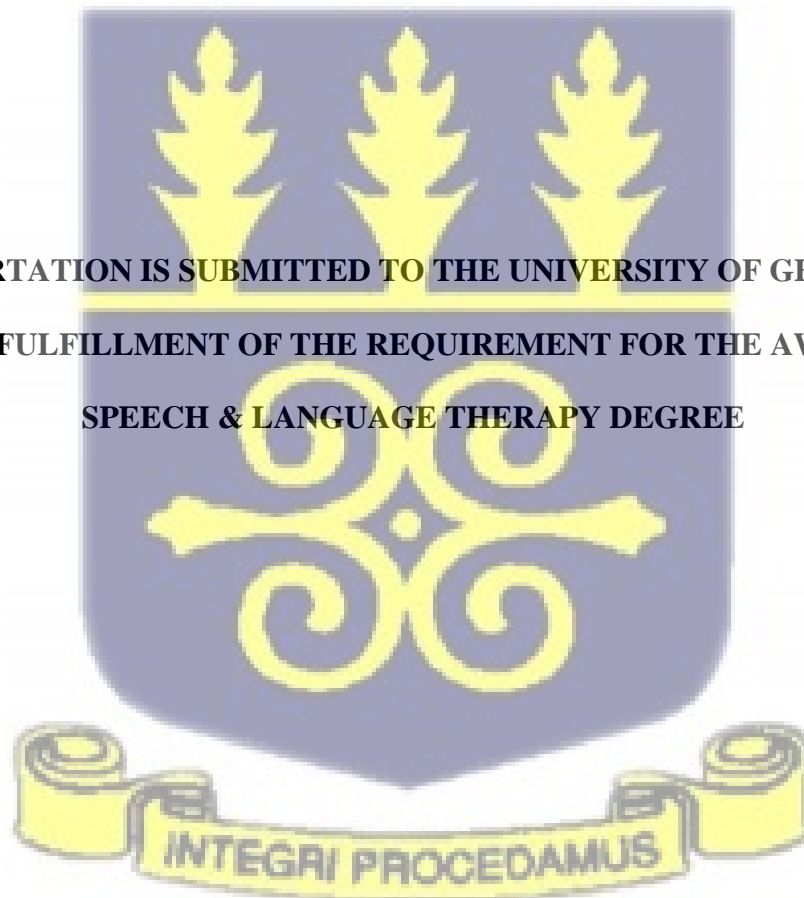


**KNOWLEDGE OF TRAINEE NURSES ON THE ROLE OF SPEECH AND  
LANGUAGE THERAPISTS**

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**(10294901)**

**THIS DISSERTATION IS SUBMITTED TO THE UNIVERSITY OF GHANA, LEGON  
IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF MSC  
SPEECH & LANGUAGE THERAPY DEGREE**



## DECLARATION

I Belinda Boye hereby declare that, except for references to other people's work which have been duly acknowledged, this work is the result of the original independent work done by me under supervision. I further declare that it has neither in whole nor in part been submitted for any degree in this university or elsewhere

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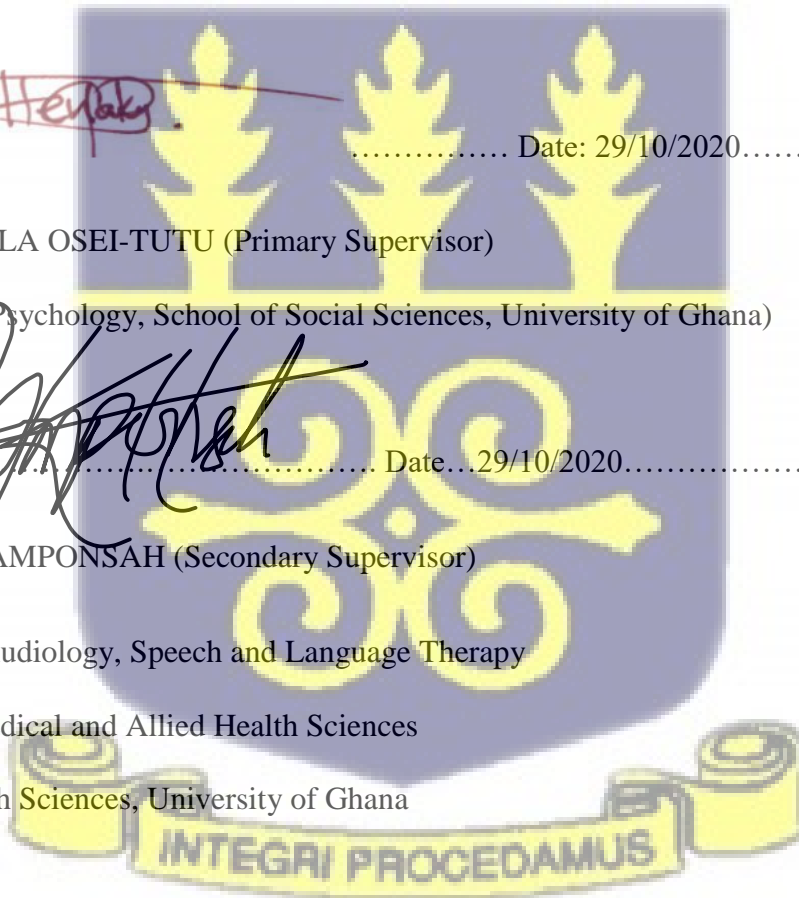
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HEAD OF DEPARTMENT



## **DEDICATION**

This work is dedicated firstly to the Almighty God, who has been my rock. It is also dedicated to my dear husband who encouraged me in the course of the work.



## ACKNOWLEDGEMENT

This work couldn't have been possible without the grace of the Almighty God.

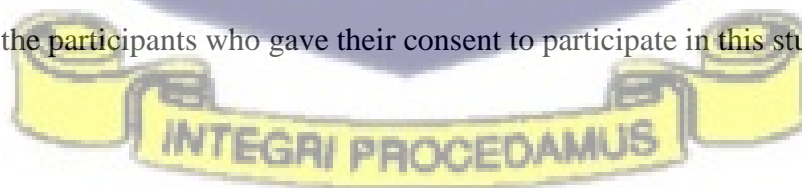
My profound gratitude also goes to my academic supervisors, Dr. Annabella Osei-Tutu from the Department of Psychology, University of Ghana and Mr Clement Amponsah from Department of Audiology, Speech and Language Therapy, School of Biomedical and Allied Health Sciences, College of Health Sciences, University of Ghana for their fruitful supervision, support, and encouragement in the entire execution of this work.

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I would like to thank the principal and staff of the Korle-Bu Nursing and Midwifery Training School for their cooperation and support during the data collection stage at the school.

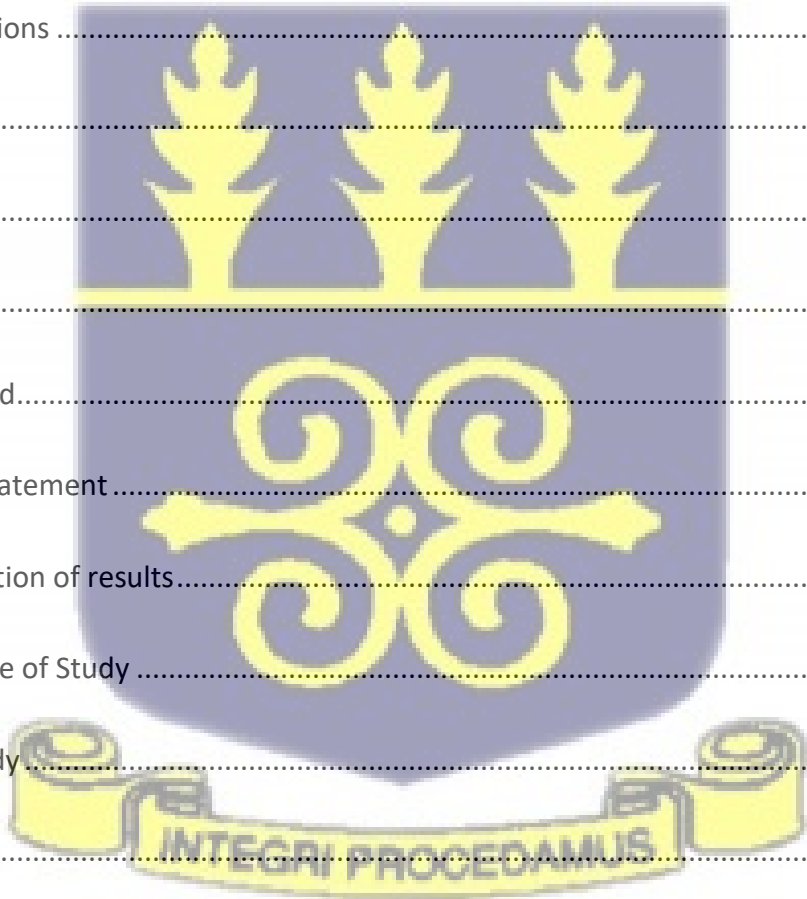
I am grateful to the participants who gave their consent to participate in this study.



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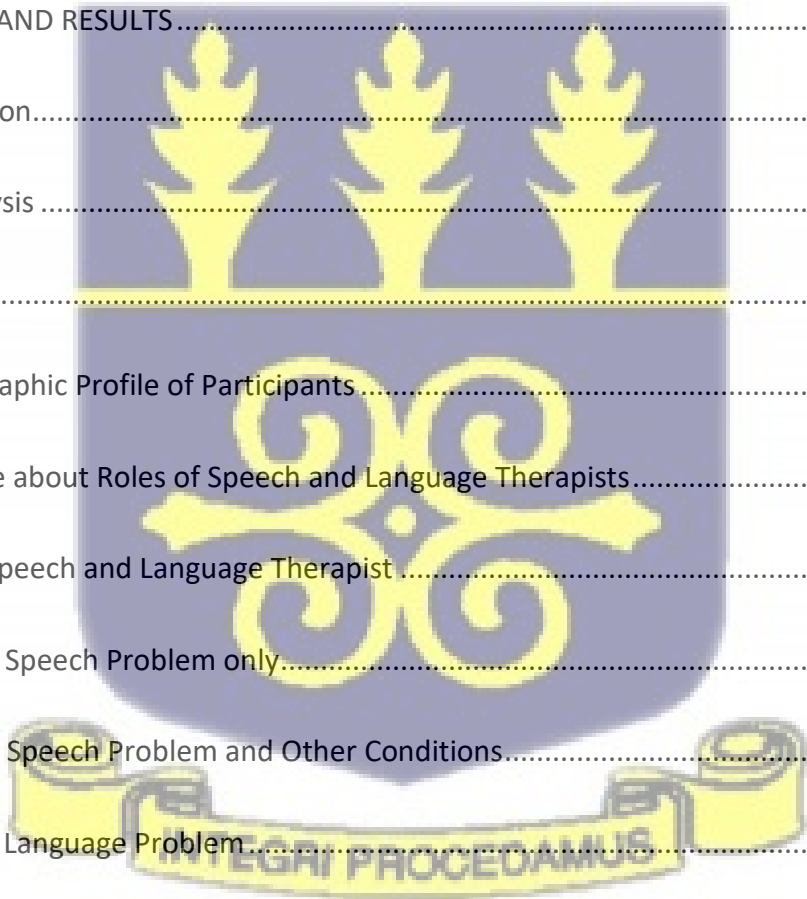
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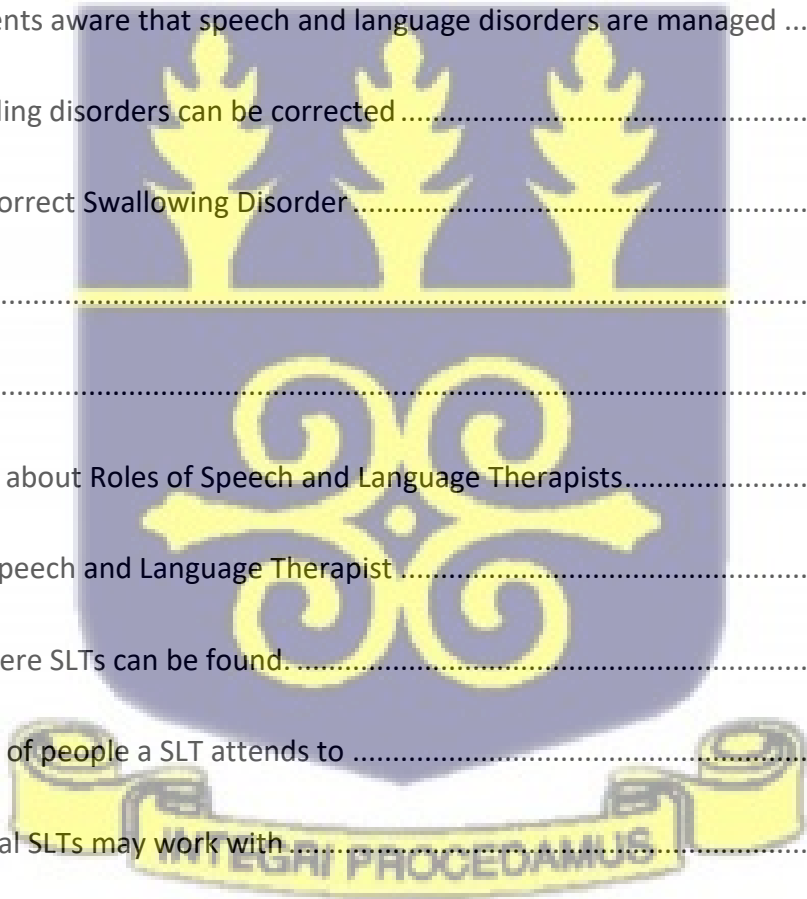
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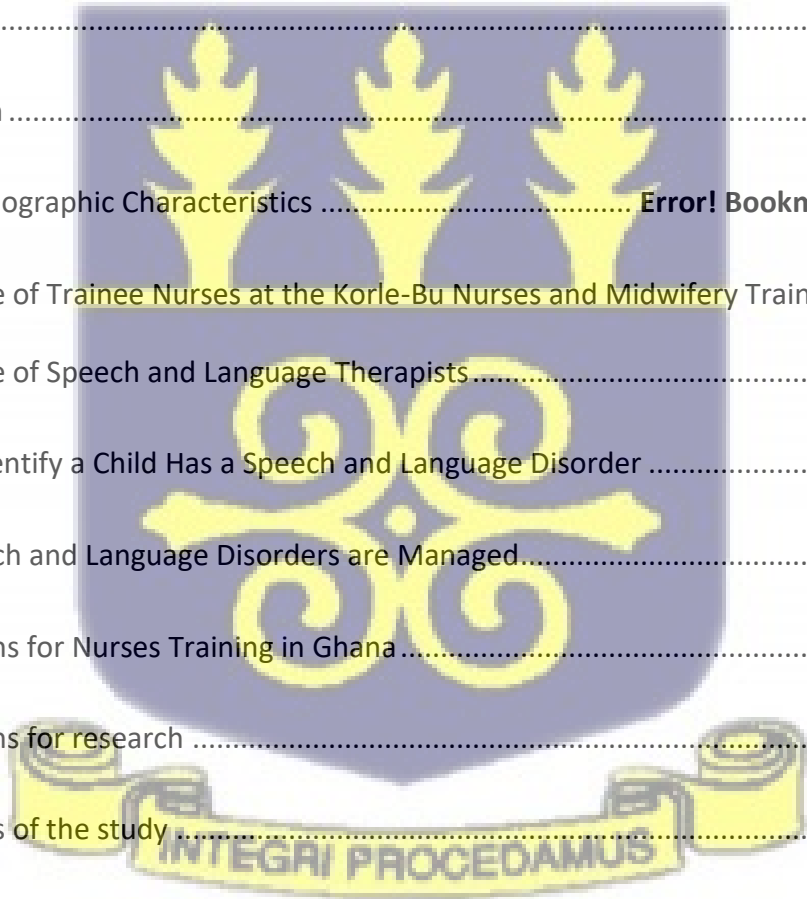
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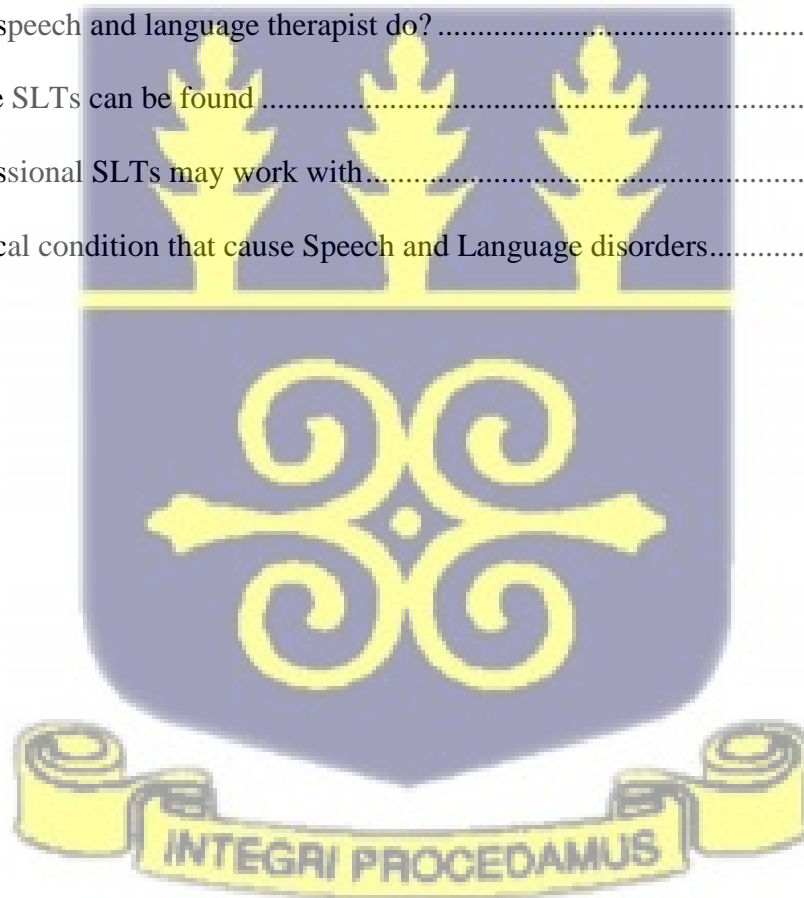
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### List of Abbreviations

ASHA American Speech-Hearing Association

CASLPA Canadian Association of Speech Language Therapists and Audiologists

FGD Focus Group Discussion

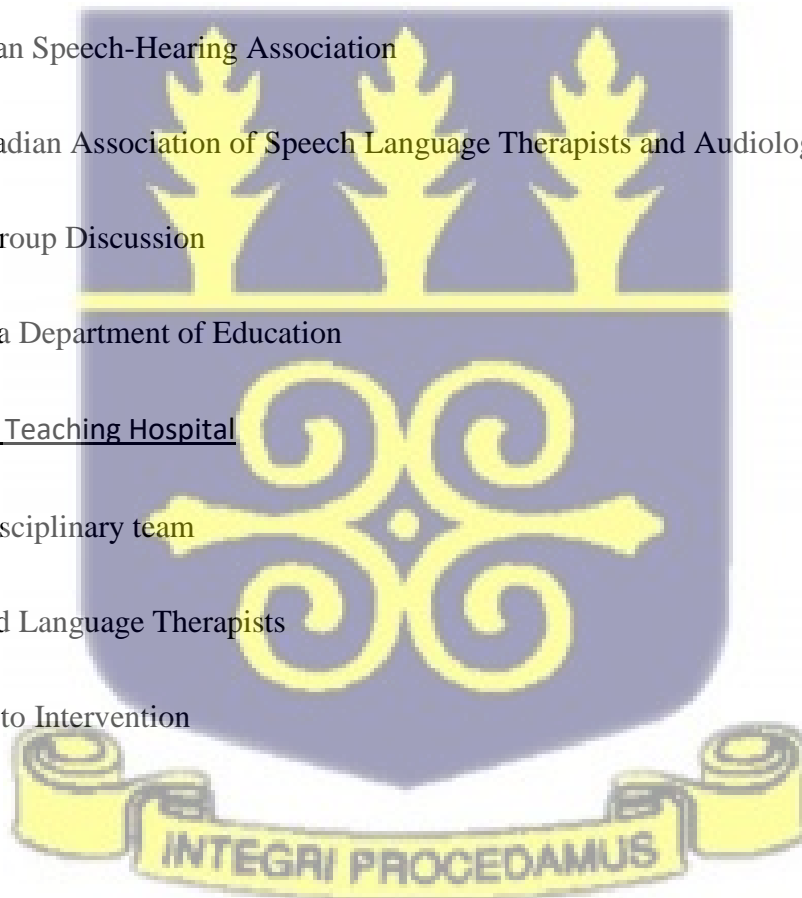
GDOE Georgia Department of Education

KBTH Korle-Bu Teaching Hospital

MDT multidisciplinary team

SLTs Speech and Language Therapists

RTI Response to Intervention



## Abstract

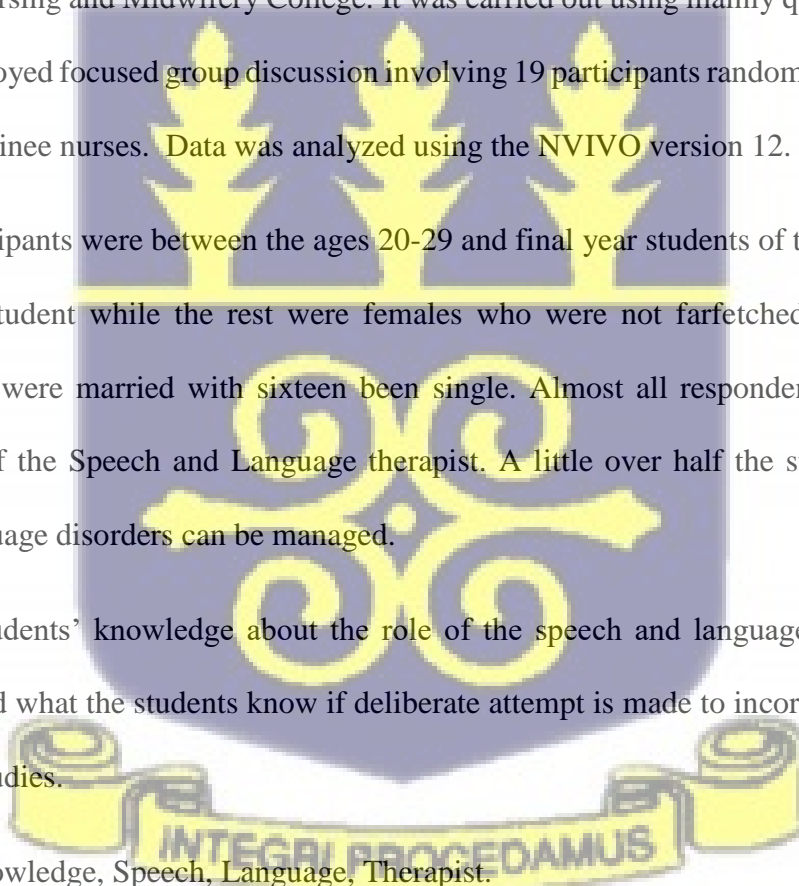
**Background:** Specialists who manages communication and swallowing disorders are often refer to as Speech and Language Therapist. A few of these professionals are however part of the team responsible acute and community specialist palliative care. Speech and Language Therapist (SLT) provide intervention for life challenging health issues like dementia and Head and Neck cancer. With the gradual numerical increase of SLTs, there is still the need for further education and research to create and enhance understanding of their role and services.

**Aim & Method:** The study assessed the knowledge of Training Nurses about the role of SLT at the Korle-Bu Nursing and Midwifery College. It was carried out using mainly qualitative research design that employed focused group discussion involving 19 participants randomly selected among the third-year trainee nurses. Data was analyzed using the NVIVO version 12.

**Findings:** Participants were between the ages 20-29 and final year students of the college. There was one male student while the rest were females who were not farfetched from the school statistics. Three were married with sixteen been single. Almost all respondent had knowledge about the role of the Speech and Language therapist. A little over half the students knew that speech and language disorders can be managed.

**Conclusion:** Students' knowledge about the role of the speech and language therapist can be enhanced beyond what the students know if deliberate attempt is made to incorporate it into their curriculum of studies.

**Keywords:** Knowledge, Speech, Language, Therapist.



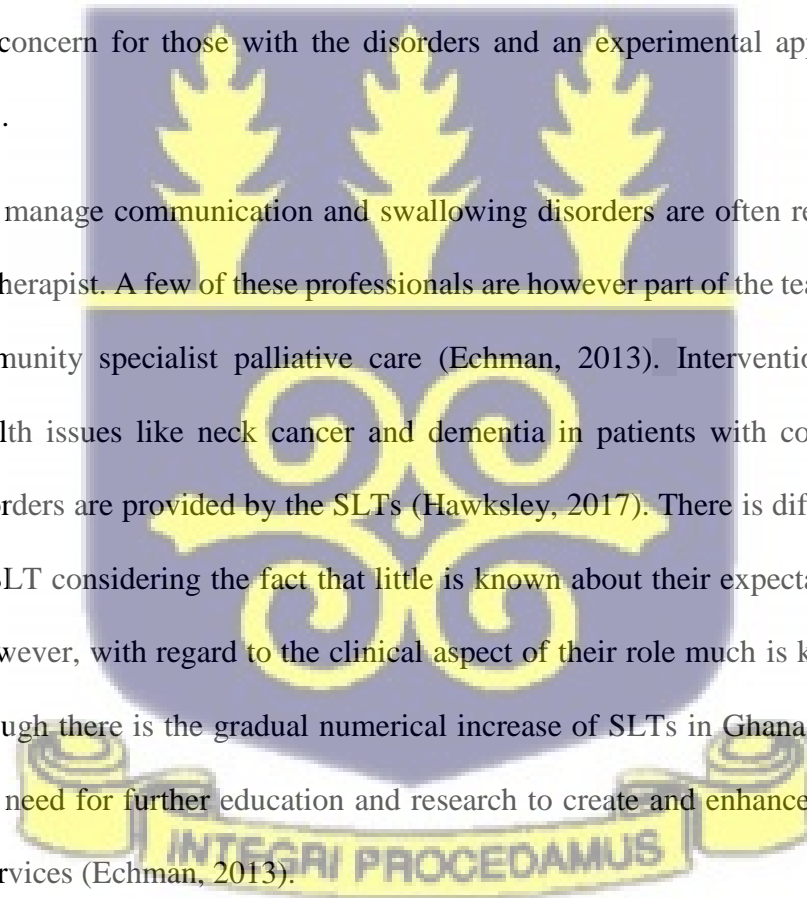
## CHAPTER ONE

### INTRODUCTION

#### 1.0 Background

Speech and language therapy can be said to be an emerging discipline that is only about 50 years old which started with those managing soldiers returning from the Second World War with head injuries. As at the time, interest in communication was led by Ear, Nose, and Throat (ENT) surgeons, neurologists, and teachers. As in many other disciplines, the foundations of the SLT were based on concern for those with the disorders and an experimental approach to remedy (Enderby, 1996).

Specialists who manage communication and swallowing disorders are often referred to as Speech and Language Therapist. A few of these professionals are however part of the team responsible for acute and community specialist palliative care (Echman, 2013). Interventions for some life challenging health issues like neck cancer and dementia in patients with communication and swallowing disorders are provided by the SLTs (Hawksley, 2017). There is difficulty in defining the role of the SLT considering the fact that little is known about their expectations, beliefs and core values. However, with regard to the clinical aspect of their role much is known (Hawksley, 2017). Even though there is the gradual numerical increase of SLTs in Ghana (refer to Table 1), there is still the need for further education and research to create and enhance understanding of their role and services (Echman, 2013).



Year	Number of SLTs
Up until 2010	5
2010-2019	12

### 1.1 Problem Statement

In Ghana, there are currently 19 practicing SLTs. These SLTs provides services at 3 schools, 10 public hospitals, 2 NGOs and 5 private clinics.

Health delivery is generally a collective effort from different professionals and the lack of understanding of each professional along the chain is a single most glaring barrier to effective team work (Byrne & Pettigrew, 2010). To ensure adequacy in referrals and consistency in the health care delivery system, SLT's role must be widely acknowledged by all professions including nurses who work with persons with speech and language disorders (Byrne & Pettigrew, 2010).

The interwoven functions of professionals within the health care and educational settings have necessitated the realization that an individual cannot meet all the complex needs of a patient. Therefore, promoting team work involving professionals from different background maximize the efficiency of the service delivery (Sullivan & Cleave, 2003).

One of the major challenges to the effective management of persons with speech and language disorders is the finding of new or worsening cases which is central to timely referral to SLT survives (Egan, 2020). Nurses play a cardinal role in this case-finding process because of their

constant availability in providing health care to patients of varying ages (Park, 2015). Niezgoda (2014) suggest that many health care providers including nurses are not very equipped to recognized and managed signs of speech and language disorders.

According to Morris (2019), there are wide research gaps when it comes to the knowledge regarding patient-specialist interactions of clients with speech and language difficulties in healthcare settings. To bridge this gap, a number of suggestions have been propounded by researchers to address this issue and among these are; communication and collaboration, need for information and training, and need for care coordination and systemic changes (Morris, 2019).

A research by Hawksley, (2017) found that health professionals have a very weak understanding of the SLT's role. Most health care professionals especially nursing trainees do not have adequate knowledge on the role of SLTs. This inadequate knowledge of the role of SLTs by trainee nurses can have on the quality of life of an individual in later life. Therefore, assessing the knowledge of these trainees' nurses on the role of SLTs provide information on how to integrate proper interventions that can help to properly management conditions of sort for possible corrections (Hawksley, 2017).

A study by Egan (2020) found that even where some training is delivered, learning was not translated into practice and this has led to all the emerging issues with case finding and SLT referrals (Egan, 2020). Therefore, assessing the knowledge level of nursing trainees on the role of SLTs will help integrate proper interventions that can help bridge the inter-professional gap.

## 1.2 Dissemination of results

The findings from the study will be submitted as a Master of Science degree in Speech and Language Therapy Dissertation to the Department of Audiology, Speech and Language Therapy College of Health Sciences, University of Ghana. The findings will also be presented to the Korle-Bu Nurses and Midwifery Training College and the Ministry of Health. Findings from the study will be published in a local and international peer-reviewed journal.

## 1.3 Significance of Study

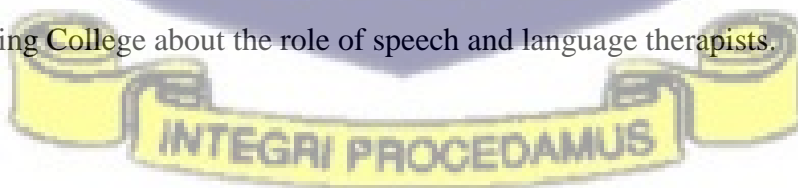
Data that will be derived from this study will help to assess nursing trainees' knowledge on speech and language therapy and management. It will also provide guidance for educating nursing trainees on the work and the need for incorporation of speech and language therapist in the hospital environment. That apart, it will also provide research data that might help in deriving policies, protocols, and internal guidelines on the assessment and management of the condition.

## 1.4 Aim of Study

The aim of the study is to assess knowledge of trainee nurses at the Korle-Bu Nursing and Midwifery Training College about the role of speech and language therapists.

## 1.5 Objectives

The objectives of the study are as follow;



1. What knowledge do trainee nurses at the Korle-Bu Nurses and Midwifery Training College have about the role of speech and language therapist?
2. How do student nurses identify if a child has a speech and language disorder?
3. What knowledge do trainee nurses have about how speech and language disorders are managed?



## CHAPTER TWO

### LITERATURE REVIEW

#### 2.0 Definition of Speech and Language

According to Mclaughlin et al., (2011), Language can be said to be the theoretical indulgence of communication. Language comes in two forms; the understanding which can also be referred to as the receptive language and the ability to convey ideas, thoughts, feeling and information mostly referred to as the expressive language. It may commonly be considered in the spoken form, but may also take a visual form as in the case of sign languages. Speech on the other hand refers to the verbal construction of language (Mclaughlin, 2011). Speech can be said to be the medium for language where sounds are combined phonetically to convey meaning (O'Hare, 2016). According to O'Hare (2016), speech production involves a collection of systems like praxic (planning/programming of spatiotemporal parameters of movements of the articulators for speech), prosodic (stress, intonation and voice quality that conveys meaning and affect) and phonological (cognitive and linguistic) articulatory (sensorimotor). Problems such issues with reading and spelling, among other learning difficulties are directly related to Speech development.

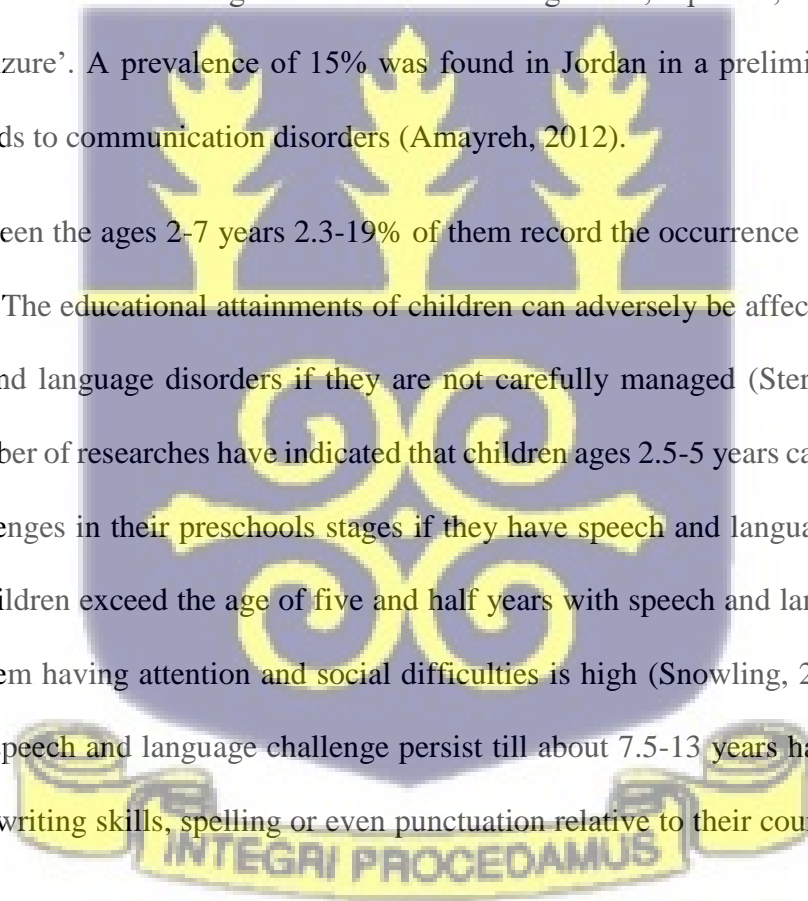
#### 2.1 Prevalence and Prognosis of Speech and Language Disorders

About 10 percent of the American population was estimated by The National Institution of Health in America (1995) to have a communication disorder (Mahmoud, 2014). In Canada, the Association of Speech Language Therapists and Audiologists (CASLPA) have also indicated that issues of speech and hearing affect individuals in their tens of thousands. Again, a study conducted

in Australia on 14500 primary and secondary school students over a period of 3 years showed a prevalence of 13.04 % and 12.40% for communication disorders in the first and second years respectively (McLeod, 2007).

Another study in Australia which was more specific about communication disorders revealed a prevalence 12 percent to about a quarter of a percentage for voice expressive speech and language disorders (McCormack, 2007). In Iran, Karbasi and Golestan also reported a prevalence of total of 14.8% speech disorders which include speech sound disorders, stuttering and voice among primary school students (Karbasi, 2011). Paul et al., (1992) found in a studied, the ranking of prevalence of disabilities from highest to lowest was 'cognitive', 'speech', 'visual', 'hearing', 'motor' and 'seizure'. A prevalence of 15% was found in Jordan in a preliminary unpublished study with regards to communication disorders (Amayreh, 2012).

In children between the ages 2-7 years 2.3-19% of them record the occurrence of language delay (Burden, 1996). The educational attainments of children can adversely be affected for those with severe speech and language disorders if they are not carefully managed (Stern, 1995). Quite a remarkable number of researches have indicated that children ages 2.5-5 years can have a high rate of reading challenges in their preschools stages if they have speech and language issues (Catts, 2002). When children exceed the age of five and half years with speech and language issues, the possibility of them having attention and social difficulties is high (Snowling, 2006). Also, those whose specific speech and language challenge persist till about 7.5-13 years have been found to have weakened writing skills, spelling or even punctuation relative to their counterparts (Bishop, 2003).



The possibility of difficulties prolonging in children with speech and language problems seem to have a positive correlation to the range of language problems and the delay in speech development (McRae, 1991).

A study conducted in Ghana within a hospital setting and open to the general public reveals an incidence 43.2% children under six years of age who could neither understand nor produce speech and another 32.8% of similar age group who understood speech (partly or totally) but could not produce it (Osie-Bagyina, 2000).

## 2.2 Screening

A research by McLaughlin (2011) showed insufficient evidence that suggest that recommendation for the detection of speech and language delay in children up to five years of age should be based on formal screening instruments used in primary care. The difficulty in developing specific risk factors to guide in screening speech and language delays is due to the inconsistency in the results in studies conducted. The commonest risk factors mostly used were low birth weight, prematurity, male sex, and hereditary. However other less reported risk factors include, Parental educational level, illness during childhood, birth at latter age, and large family sizes. (Force, 2006). The SLT must take recognize the concerns parents raise when it comes to their child's speech and language and even the child's typical behavior at home and the environments. There are guidelines arrayed in the American Academy of Pediatrics Bright Futures that takes into consideration the milestones to be covered at each well-child visit regarding speech and language (Green, 2002).

### 2.3 Normal Development

Green and Palfrey (2002) postulated that there is the necessity for physicians to have knowledge of normal developmental milestones to be able to establish when a child is not attaining age appropriate developmental milestones for speech and language. Speech is developed through a couple of respective progressive stages and these include: cooing, babbling, words and word combinations, expressing complex concepts and understanding. Proficient development in child's vocabulary and language is a direct function of the child's family and early school experiences. According to Green and Palfrey (2002), children can be assisted by their families in language development through the process of storytelling, word playing games, songs and rhymes recitals, engaging in various dialogs through questions and conversation, and collective book reading. As children age, the ability of their speech to be understood by people other than their family or caregivers without any contextual cues increases.

### 2.4 Bilingual Language Learning

Some children happen to grow up in bilingual settings and these children will definitely be tossed between a mixture of the languages which could reduce the rate of language development (McLaughlin, 2011). It is an established fact that these kinds of children will usually pick up both languages by five years of age (Leung, 1999). A child growing up in an environment where two languages are dominantly spoken might not necessarily require the assistance of a language therapist if there are some challenges in speaking the dominant language. Children with two languages should be referred based on the same criteria used for monolingual children.

## 2.5 Nonconforming Development

For children not attaining developmental milestone for speech and language development, a complete evaluation of the child is needed. Development of an unusual language can be an added characteristic of other physical and developmental problems that may first show its symptoms as language problems. Risk factors that leads to speech and language problems can further be divided into two main categories; primary speech and language problems (cannot be said to have been cause by any underlying factor) and secondary speech and language problems ( are usually attributable to some underlying conditions) (McLaughlin, 2011).

## 2.6 Indications for Referral

When signs and symptoms of communication difficulties are identified in children, these children should immediately be referred to the SLT or an audiologist for them to be placed early on an intervention program (Harlor, 2009). Anytime delay in speech and language is suspected in children, a careful monitoring of the issue before referral may be the right thing to do. However, this method should be approached with care as 75% of children below the ages of 3.5 years with the disorder will only need speech therapy after one year without intervention (Roulstone, 2003). There is however no 100 percent guarantee on child's improvement with the carefully monitoring method alone, so the professional assessment of a SLT of the child can be the most significant game changers (Roulstone, 2003).

## 2.7 Parent Counseling

Parents are advised not to make explicit diagnosis without completing a formal evaluation of children specifically for those not meeting the developmental milestone for speech and language. Parents should be made aware that once the appropriate diagnosis has been done, there are specialists who can assist both the child and parents to attain the benefits the intervention. Children with other underlying developmental issues, there is the possibility of the problem persisting or improving as the child's communication skills improves. Physicians following up on children with speech and language issues at homes must assess the children's progress with parent. Focusing on the positive stride made by the child from the previous visit is proven to be more helpful as compare to just noticing the current status of the child. In addition to recommending books for parents, the physician can also focus on educating parents on what can help their children. Two books were recommended in a recent article (Schum, 2007): *The New Language of Toys: Teaching Communication Skills to Children with Special Needs: A Guide for Parents and Teachers* (Schwartz, 1996), which provides specific suggestions for using toys and books in a developmentally appropriate manner to encourage communication.

## 2.9 Speech and Language Delay

Globally, several studies have been conducted on the awareness and knowledge about speech-language therapist, measuring the public awareness of SLTs in general, whereas others were measuring the awareness of the individual disorders associated with speech and language.

Recently, American Speech-Hearing Association [ASHA], 2013 according the results of the surveyed, speech language pathologist and audiologist members of ASHA, almost half of the members indicated lack of awareness as number one barrier to early detection of communication disorders (Mahmoud, 2014)

In every 5 to 10 children of preschool age, speech delay has been identified as the single most common developmental disorder occurring more in male children as compared to females (Mahmoud, 2014). Speech delay is evident when a child exhibits slower than the norm in the development of speech skills even in the absence of developmental disorders. One thing that must be noted clearly when evaluating children is that, speech and language delays are two technically distinct disorders. Speech delay is basically the challenges with fluency and articulation which are all components of words production. Language delay a global problem is referred to as the inability in understanding and using of words. Sawyer (2007) revealed that when speech and language disabilities are not detected early enough in children, it becomes difficult to even identify students with speech and language difficulties.

## 2.10 SLTs

Speech-language therapy as discipline that concern itself with the study and understanding of human communication and its disorders, assessment and treatment of swallowing, speech-language, and cognitive-communication disorders that result in communication disabilities, the specialist responsible for treating these disorders is called a speech-language therapist ( SLT) (Mahmoud, 2014).

Patients with life-challenging conditions, such as dementia and head and neck cancer are cared for by speech and language therapists (SLTs). The SLTs also provide health interventions for patients with communication and swallowing disorders. SLTs assess children and/or adults with specific speech, language and communication problems and provide treatments to enable them to communicate to the best of their ability. Unlike in children, adults with speech and language difficulties may be due to age-related or acquired conditions such as head and neck cancer, Parkinson's disease, stroke, or dementia. In providing the appropriate support for effective communication, the SLTs usually work alongside the patients' families, and the wider multidisciplinary team (MDT), to identify communication difficulties which is essential for facilitating and advocating patient choice (Hawksley, 2017).

The SLT as an allied health professional works directly with professionals from other background such as occupational therapists, teachers and nurses by providing support to them and their carrier. The role of SLTs however have been expanded to include working in settings like the hospitals, nursing homes, communities, hospices and palliative patients in recent years(Pollens, 2012).

Other professionals that the SLT can work with are special education teachers, literacy coaches and reading specialists. For students with disabilities, the Georgia Department of Education (GDOE, 2007) recommends a teaching method that complies with Georgia's Performance Goals and Indicators for Students with Disabilities. ASHA's (2010) view of collaboration is similar to that of GDOE in that SLTs are required to work with other professionals of the school system to meet students' needs. The two organizations again recommended that SLTs should be a vital aspect of the school learning environment which looks at response to intervention (RTI). There might be a challenge when SLTs are not included to the collaboration and the RTI processes.

### **2.11 SLTs Team Work with Other Professionals**

If SLTs is to be fully integrated into the MDT, the other members of the team must have an appreciable knowledge about their role and capabilities so as to be able to make appropriate referrals. It not a deniable fact that training, resources, time and the lack of referrals are the major challenges confronting SLTs in their service delivery. One major example of this is when Public Health England (2015) acknowledged that the general lack of palliative training and inconsistencies in understanding of what palliative care entails, might be the reason why there are no inter-professional understanding of the SLT's role in the health care delivery system.

### **2.12 Integration of SLTs in MDT**

Chahda et al., (2016) revealed that, SLTs will feel needed and be willing to do more if their inputs are well implemented by other members of MDT. The scope of their work poses changes when it comes to drawing a unique set of guidelines to inform their work (Chahda et al, 2016). A possible option can be to formulate guidelines that are broad enough to accommodate all segments of their role. Any developed guidelines must take into consideration the flexible nature of SLTs' role, as well as the diverse exhibition of patients with life challenging conditions. Due to the severity and impact of communication disorders, its managerial guideline can vary significantly. When it comes to adults with learning challenges, a more general approach can be adopted by SLT with the aim of working towards quality of life, wellbeing, independence, inclusion and civil rights (Chahda,

2016). Guidelines developed for SLTs working in palliative care may do well to follow this flexible model.

### 2.13 Health Professionals and Management of Speech and Language Disorder

Issues regarding quality of life play a crucial role in the management practices of speech and language therapy. It is however not very clear as to where it fits in the line of practice or even the kind of factors that inhibits the attainment of good quality of patients. One challenge to tackle when it comes to quality of life is the difficulty in defining and measuring of many factors that comes to play. Originally, factors determining quality of life relates to social conditions. However, it's been opened up to include individual's goals, standards, expectations and concerns (WHO Quality of Life Group, 1998). Furthermore, there is the emergence of another aspect of quality of life which takes into consideration health related issues (Brumfitt, 2013).

Delay in speech and language is a common occurrence in childhood development. In some cases its underlying cause can be known while in other cases the underlying cause is not known. The ones whose underlying causes are known are often referred to as a secondary difficulty while those underlying causes which are not known are called the primary difficulty (Law, 2005). SLTs are generally challenged by the lack of awareness of children with speech and language difficulty. (Edelman, 2013).

Children with delay speech and language have an immersed challenge of reading, paying attention in class or even play with their age mate. There might be some form of pressure from parents to seeing improvements in their children's condition. However, there are no significant evidence to

recommending for or against formal instrument used in primary care to detect the condition. When children are not meeting the expected development of speech and language for age, it becomes essential to adequately evaluate the child's developmental process because delay in language development can be the manifestation of some underlying problem (Mclaughlin, 2011).

## CHAPTER THREE

### STUDY DESIGN AND METHODS

#### 3.0 Introduction

In this chapter, the methodology employed in the data collection for the study would be explained to include the design of the research, population of the research, sample size, technique used in sampling, method of data collection, research instrument and data analysis. Research methodology is essential because it describes the laid down procedure to be adopted in solving a research problem, including the form in which the problem is formulated, the definition of terms, the subject choice for investigation, data gathering tool validation, the collection, analysis and interpretation of data and the processes of inference and generalization (Lokesh, 2009).

#### 3.1 Study Area

The Korle Bu Nurses Training College is a public tertiary health institution in Accra in the Greater Accra Region of Ghana. The college is in the Accra Metropolitan Assembly and can be found few



meters from the Korle-Bu Teaching Hospital (KBTH) down the Alexandra Street. The Kwame Nkrumah University of Science and Technology awards a Diploma in Nursing after students from the institution have successfully completed a three-year nursing training program. The institution is accredited by the National Accreditation Board. The college runs two main programs, Nursing and Midwifery. The Nursing program was first established in 1945 as the first state registered nursing institution (SRN) in the gold coast, and the first of its kind in the whole of West Africa. The SRN was established with the aim of producing high caliber local nurses to replace the foreign ones. It started with just 6 students and grew into largest diploma awarding nursing institution in Ghana since 1999.

All midwives who qualified from 1930-1932 were issued with certificates in 1932 when the first midwives' ordinance was passed and the board was constituted. Training continued until the entry requirement for training was persons with the SRN certificate or the qualified Registered Nursing Certificate (QRN). The period for the training was one and half years respectively, but the training period for the QRN was phased out in 1979. Registered midwifery started in 2003 for applicants with SSCE. The period of training is 3 years (6 semesters).

The activities, curriculum and examination of the Korle-Bu Nursing and Midwifery College are regulated by the Nurses and Midwifery Council (NMC). Section 4(1) of the N.R.C.D 117. The first woman medical doctor from West Africa, Dr. Agnes Yewande Savage became it first supervisor.



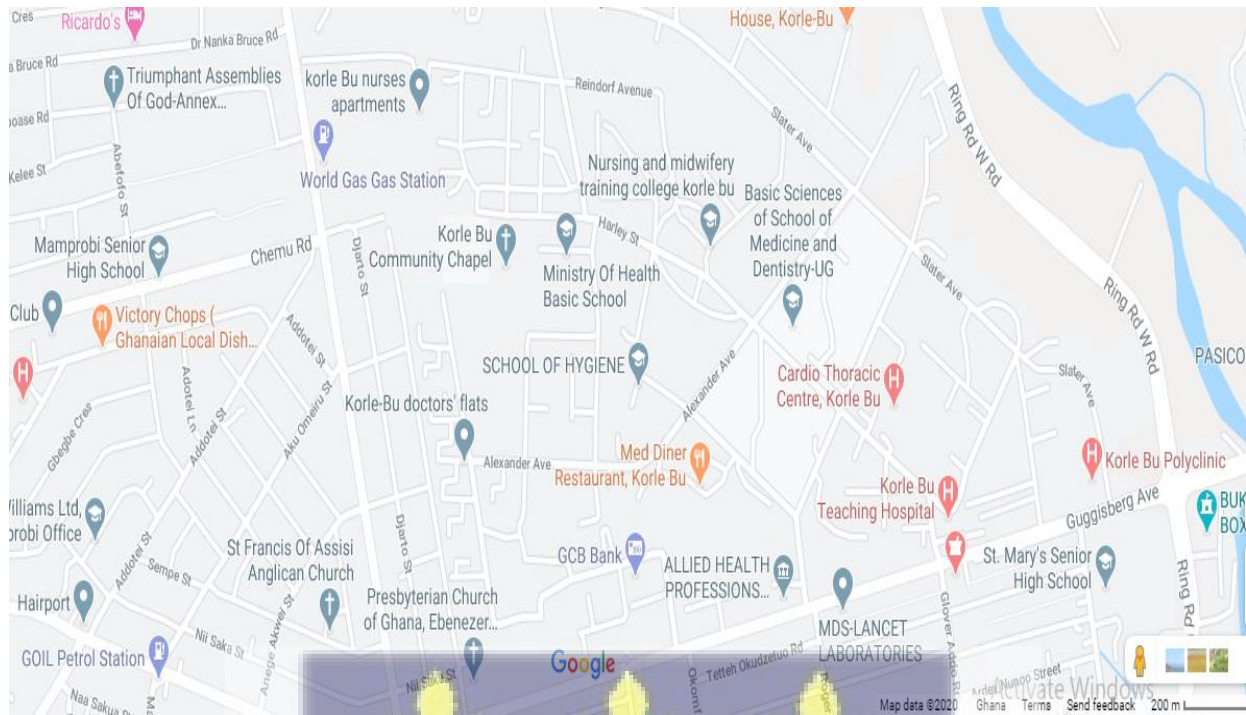


Figure 1. Google map of the study area



Figure 2. Satellite Google map of the study area.

### 3.2 Research Approach and Design

This is an exploratory study; it employed the qualitative ground theory research approach/principles that made use of primary data to assess the knowledge of nursing trainees on the role speech and language therapist. “Qualitative research is characterized by its aims, which relate to understanding some aspect of social life, and its methods which (in general) generate words, rather than numbers, as data for analysis” (Patton & Cochran, 2002). Bamfo, 2017 affirms the fact that a “qualitative research focuses on the understanding of an aspect of life in a flexible fashion in a text which is assumed to be its natural setting and is produced in words rather than numbers for data analysis”. Detailed observation and explanation are needful through interviews, focus groups sampling among others so as to adequately explain and have a deeper understanding of the phenomenon being studied. According to Patton & Cochran, (2002) qualitative methods is rightly used for research topics that seeks to understand the attitudes and experiences of people, the community from different perspectives as its objective is to answer questions about the ‘what’, ‘how’ or ‘why’ of a phenomenon rather than ‘how many’ or ‘how much’, which are answered by quantitative methods” (Patton & Cochran, 2002) . Anderson, (2010) indicated that the reason for using the qualitative method is its ability to live the participant’s view intact hence generating a rich detailed data and presents several possible contexts for understanding the phenomenon under study. This therefore implies that, qualitative research can be used to precisely describe an event, phenomena or even conduct cross-case comparisons and analysis of individuals or group. Lindegger, 1999 also defined case study as a thorough investigations of individuals, single families, units, organizations, communities or social policies. The Merriam Webster dictionary (2017) simply puts that a case study is an intensive analysis of an individual unit (such as a person or community) stressing development factors in relation to the environment.

Also, the study employed a descriptive research design concentrating on what rather than why. Kothari (2005) reveals that one research that can be used to describe phenomenon as they appear in their original states is the descriptive research method. Polit and Hungler (1999) added that “descriptive research describes what exists and may help to uncover new facts and meanings”. Kombo and Tromp (2006) indicated that descriptive investigation engages a procedure of gathering evidence through interviewing or administering of a questionnaire to sampled individuals. Descriptive technique was engaged in this study to describe the level of knowledge of trainee nurses on the subject. Focused group discussion, was employed by the researcher in collecting the relevant information for the study.

### 3.3 Sources of Data

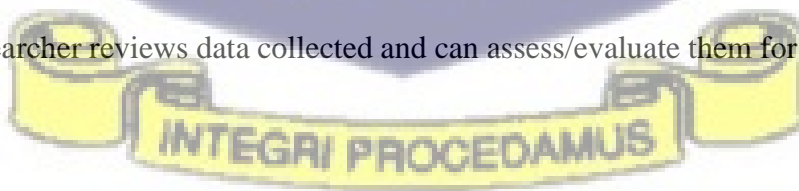
Primarily, data was obtained from focus group interviews conducted from the selected nursing trainees. The research used findings from the focus group interviews as primary data. Kothari (2008) defined primary data as actual information gotten from a research. The benefit of using primary data would be that, it presents data collected in direct relation to specific objectives of the study. The questions for this study were modified to obtain the specific data that answered the research questions of this study in order to achieve the specific objectives. A digital voice recorder was used.



### 3.4 Focused Group Discussion

Transparent criteria, such as persons knowledge, life-experience, particular characteristics or role in a group/community are relevant in the selection of participants for focused group discussion (Khan & Manderson, 1992). This approach to sampling is usually called 'purposive'. However, in some instances, 'random' sampling can be used (though not often applied in FGDs), to select out of the bigger group with similar characteristics (van Eeuwijk & Angehrn, 2017). It appears in literature that normal size of focus group can be between 6 to 12 participants; however, in some cases smaller groups than the norm is also used if the participants are very well informed on the subject (van Eeuwijk & Angehrn, 2017). A group is said to be 'mini group' if the participants of the group are only 3 to 4. General rule of the thumb is that smaller groupings should come with participants with in-depth knowledge and a broad spectrum of experiences on the subject matters.

The complexity and nature of the research topic is the determinant of the number of FGDs that can be held. To be able to produce and examine theoretical ideas, data collected from FGDs should be relevant and adequate to allow for comparisons (Barbour, 2005). Due to this the concept of 'saturation' can be of an immense help to focused group data collection in many studies. The concept of saturation is attained when one reaches a point where subsequent group discussions no longer provide new insights or outcomes. At the point of saturation, it becomes clear that data collection can come to an end since no new ideas are emerging (Carlsen & Claire, 2011). Usually at this point, researcher reviews data collected and can assess/evaluate them for completeness and sufficiency.



### 3.5 Population

According to Cohen et al., (2010), population is the subject of a particular research within a group of people. For this research study, the population was final year trainee nurses of the Korle-Bu Nursing and midwifery training school who are at the verge of graduating into the general pool of health care providers in the healthcare systems of Ghana. The Korle-Bu Nursing has been the largest diploma awarding nursing and midwifery institution since 1999 and 2003 respectively for a period of three years of training.

### 3.6 Data Collection Procedures

In all, a total of about 20-24 third year nursing trainees were recruited to partake in the FGDs for the study. This consisted of the following: 10-12 third year midwifery trainees and 10-12 third year general nursing trainees. These students were purposely selected based on their availability and willingness to participate in the study.

The FGD allowed the researcher to assess the knowledge of trainee nurses about the role of speech and language therapist. It was very helpful in elicitation of a wide variety of views in relation to the subject. The goal in focused groups was to let people speak off one another, suggest dimensions and nuances of the original thoughts that an individual might not have thought of. Two FDG's were organized by the researcher, one among final year midwifery class and the other among final year general nursing class. In the midwifery class, a total of ten participants took part in the discussion. The purpose of the study was explained to the participants and their consent was sorted which they agreed to join the discussion. They were made to sit in a horse shoe manner with the researcher who asked the questions and the note taker sitting facing the participants. Participants were encouraged to freely speak their views regarding the questions asked on the subject of

discussion. Before the discussions started, the group together with the researcher set some ground rule to guide the discussion process, such as no interruption when someone is answering a question, raising hand and speaking when one has been given the go ahead and many more. This was to ensure serenity in the discussion. The researcher began asking the questions, participants who wanted to answer, raises his or her, he or she was then called upon and as the participant gives his/her answer, the note taker wrote the answer given verbatim while also recording with a voice recorder. Where the participant's answer was not very clear, he/she was asked to repeat the answer for it to be captured clearly. The process was repeated for the 19 questions categorized under what knowledge trainee nurses at the Korle-Bu Nurses and Midwifery Training College have about the role of speech and language therapist, how student nurses identify if a child has a speech and language disorder and what knowledge trainee nurses have about how speech and language disorders are managed. The interview and discussion were held in English and it sprang about two hours. The procedure was same for the general nursing class with nine participants and a total time of about two hours and ten minutes was used for the discussion. Researcher then thanked all participants and gave some refreshment.

### **3.7 Data management plan and Analysis**

Answers obtained during the FGDs were typed on Microsoft word. Voices recorded were transcribe on word and compared with notes taken to ensure that there are no missing data. Data were cleaned, coded and then entered into NVIVO version 12 (qualitative data analysis software) for analysis. The transcribed data was first imported into the NVIVO version 12. Cleaning of the data was done by matching out all the responds of participants with respect to each question on

the interview guide used. The transcribed data was then organized for uniformity by labeling each interview guide question as heading one and the corresponding responds of the participants with respect to that particular question number after which the auto code command was issued. The auto command allows all the responds of participants for a particular question to come under that question for easy identification. Coding of data began first by using software's query icon to check for word frequency thus the number of times a particular word or phrase as emerged from the provided answers. The dominant words or phrases were then coded as child nodes under the parent node which was mainly the interview guide question. The researcher attached memos to all major nodes which was the researcher's description of all the major nodes. Analyses of the data was done by finding relationship among the nodes, frequency of the nodes and the underlying concepts for easy understanding. The researcher then developed commonalities from statements and grouped identical or related statements into themes and sub-themes for the purpose of presentation and explanation. This complex but simplified process enabled the researcher to strictly and stringently report the findings with absolute accuracy.

### **3.8 Ethics**

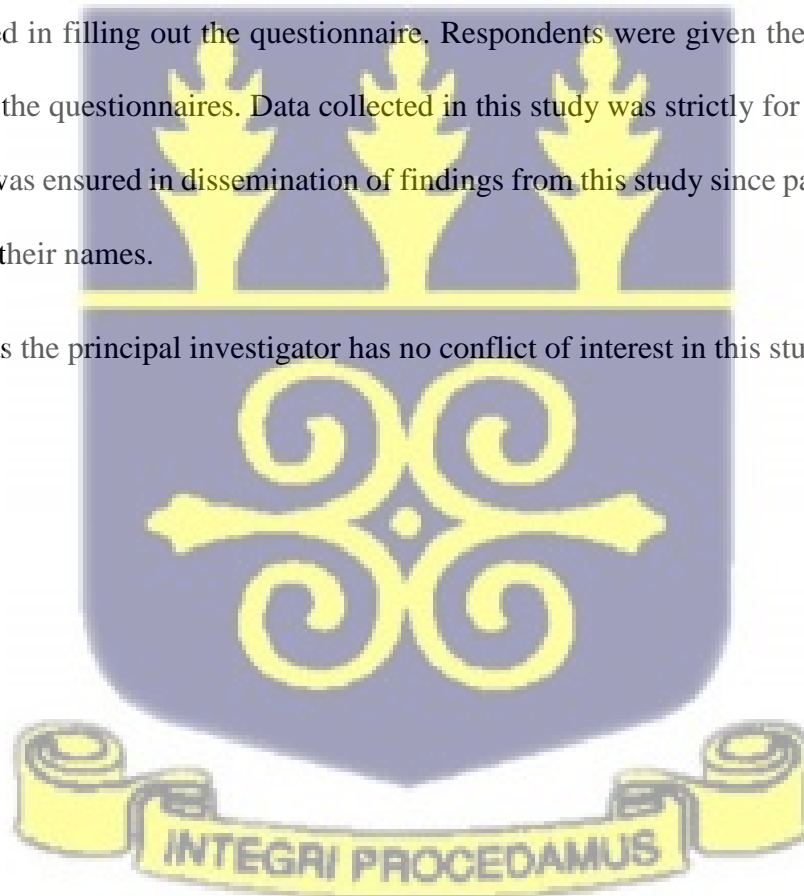
In order to ensure the study complies with the instituted ethics for conducting research, the research proposal was reviewed by the Ethical Review Board of the University of Ghana School of Biomedical and Allied Health Sciences (SBAHS) and approval was sought from the Ethics Review Committee of the Ghana Health Service (GHS) / Ministry of Health (MOH), Greater Accra. Because the study was conducted at the Korle-Bu Teaching Hospital, a letter of introduction from

SBAHS to the Hospital before the research was conducted. Also, respondents were made to sign a written consent form after a detail explanation to them before they participate in the study.

Participation in this study was voluntary and participants could choose not to answer any individual question or all the questions. Participants were at liberty to withdraw from the study at any point in time of the study. However, participants were admonished and encouraged to fully participate to ensure that results from the study was a true reflection of the study.

To ensure that confidentiality is ensured, the questionnaire was coded and names of respondents was not obligated in filling out the questionnaire. Respondents were given the optimum privacy during filling of the questionnaires. Data collected in this study was strictly for research purposes and anonymity was ensured in dissemination of findings from this study since participants will not be identified by their names.

The researcher as the principal investigator has no conflict of interest in this study.



## CHAPTER FOUR

### DATA ANALYSIS AND RESULTS

#### 4.0. Introduction

This chapter comprise the details of results from the analysis of the research data. This study implored primary data from 19 third year students at the Korle Bu Nursing and Midwifery Training College using focused group discussions. Three main research questions guided the entire focused group discussion process and primary data was collected from all the 19 participants. The three research questions were posed to assess the knowledge of trainee nurses at the Korle-Bu Nursing and Midwifery Training College on the roles of speech and language therapists. The three research questions were;

RQ1. What knowledge do trainee nurses at the Korle-Bu Nurses and Midwifery Training College have about the role of speech and language therapist?

RQ2. How do student nurses identify if a child has a speech and language disorder?

RQ3. What knowledge do trainee nurses have about how speech and language disorders are managed?

#### 4.1 Data Analysis

The data analysis was purely qualitative data analysis and the importance of it was to derive meaningful deduction from the data collected. There are however no set ground rules for analyzing qualitative data which all begins with understanding the two main approaches to qualitative data; deductive and inductive approaches. The deductive approach involves analyzing qualitative data based on a structure that is predetermined by the researcher. In the deductive approach, the researcher can use the questions as a guide for analyzing the data. This approach is quick and easy and can be used when a researcher has a fair idea about the likely responses that he/she is going to receive from the sample population. The inductive approach, on the contrary, is not based on a predetermined structure or set ground rules/framework. It is more time consuming and a thorough approach to qualitative data analysis. The inductive approach is often used when a researcher has very little or no idea of the research phenomenon. For the purpose of this study, the deductive approach was used in the analysis of data because of the researcher's specialty in the field of the study.

Data from this study were collect mainly through focused group discussion and participants were selected based on willingness to participate in the study. The researcher obtained an official approval from the Korle-Bu Nursing and Midwifery Training College's ethical committee. Training and instructing of the minute taker and recording was done a day prior to data collection. Testing of recording device was also done to ensure their reliability. Time and place for the focused

group discussion was arranged by the school with the help of the various course reps from the nursing and midwifery classes respectively. The focused group discussion in their respective classes after school hours. Participants were made to seat in horse-shoe manner with the researcher who was mainly asking the questions and the minute taker facing the participants. A third person also a student but not part of the focused group was recruited to take a video recording of the discussion.

After data was collected, it was transcribed and arranged systematically by converting all data into a text format using the NVIVO version 12. All the data were then organized guided by the research questions asked. The data were then coded by categorizing and assigning properties and patterns to derive theories from relevant research findings. Patterns to gain in-depth insight into the data to help make informed decisions were then built. Data was validated to ensure the accuracy of the research design or method and the extent to which the method produced accurate data consistently and based on these the report was written.

## **4.2. Results**

### **4.1.2. Demographic Profile of Participants**

The study sampled a total of 19 participants of the required 20-24 participants and this included 10 participants from the midwifery departments and 9 participants from the general nursing class. These participants were all final year students of the college indicated in Table 4.1. The acronym GNS represents General Nursing Student and MS means Midwifery Student. Total number of students in the two classes were 211 comprising of 114 midwifery students (all females) and 97

University of Ghana <http://ugspace.ug.edu.gh>

general nursing students of which only 15 were males. However, participation in the study was mainly based on the student's willingness to participate.



Table 4.1. Participants' Demographic Profile

Participants	Age (years)	Gender	Marital status	Educational Level
GP01	20-29	Female	Single	MS-Final year
GP02	20-29	Female	Single	MS-Final year
GP03	20-29	Female	Single	MS-Final year
GP04	20-29	Female	Single	MS-Final year
GP05	20-29	Female	Single	MS-Final year
GP06	20-29	Female	Married	MS-Final year
GP07	20-29	Female	Married	MS-Final year
GP08	20-29	Female	Single	MS-Final year
GP09	20-29	Female	Single	MS-Final year
GP10	20-29	Female	Single	MS-Final year
GP11	20-29	Female	Single	GNS-Final year
GP12	20-29	Female	Single	GNS-Final year
GP13	20-29	Female	Married	GNS-Final year
GP14	20-29	Female	Single	GNS-Final year
GP15	20-29	Female	Single	GNS-Final year
GP16	20-29	Male	Single	GNS-Final year

GP17	20-29	Female	Single	GNS-Final year
GP18	20-29	Female	Single	GNS-Final year
GP19	20-29	Female	Single	GNS-Final year

Source: Field work-FDG, August, 2020

Results from Table 4.1 show that all participants were between the ages of 20 and 29 and final year students of the college, one was a male, the remaining eighteen were females which was not far fetched from that of the school statistics. Three of the participants were married and sixteen of them were single.

#### 4.3 Knowledge about Roles of Speech and Language Therapists

All the 19/19 participants responded to the questions in a straightforward and honest manner. They all responded to have heard of the subject and therefore aware of the profession of the speech and language therapist. To answer this question about the role of the speech and language therapist, respondents were made to answer questions on what they do, settings where they can be found, the categories of people they attend to, other professionals they work with and conditions that necessitate the services of a speech and language therapist.



#### 4.4 Role of a Speech and Language Therapist

Eleven respondents in all answered this question with the others not sure of the role of a speech and language therapist, four main themes and eight sub-themes emerged from the transcription as shown in Table 4.2 below.

**Table 4.2 What Speech and Language Therapist do?**

	Speech Problems	Language Problems	Speech, language and other conditions	Other conditions
Main themes	Speech management only	Language management only	Speech and language management only	Medical conditions
Sub-themes	Management of Speech and other conditions	Management of language and other conditions	Management of both speech and language and other conditions	Non-medical conditions

#### 4.5 Theme 1a. Speech Problem only

Results from primary data collected indicate that 2/19 of the students answered that the speech and language therapists help people with only speech problems. GP12 said, *“they help by using vowels properly for people with difficulty in that condition”* and GP15 also said *“they help individuals who have lost their vocal cord to regain their voice”*

#### 4.6 Theme 1b. Speech Problem and Other Conditions

Some of the respondent reported that the speech therapists help people with speech problems and other conditions. For example, GP04 said *“they are professionals who help people not only with verbal intervention but also non-verbal like sign language and with teaching aids such as pictures to be able to communicate”*. GP09 also said *“they are health professionals who help patients with speech problem as well as stroke patients”*. GP02 added *“they help individuals with resonance of voice and stammering children”*. GP08 also mentioned that *“they help children born with cleft palate, speech problem, and congenital abnormalities to improve, they help people involved in accidents to recover to normal and people with difficulty in rolling of the tongue”*.

#### 4.7 Theme 1c. Language Problem

On who a speech and language therapist is, some students answered or responded that they help patients with language issues only. For this category, knowledge on the role of the SLTs is that they are professionals who help people with language problems only. One student (GP04) has this to say, *“A professional who helps children to express language”*.

#### 4.8 Theme1d. Speech and Language Problems

Others indicated that the speech and language therapists work with speech and language disorders. For instance, one student (GP11) responded “A *professional who assesses and treats communication problems*” which she further explains “*I mean people with speech and language problems*”. However, another student (GP19) added that “*they just work with people with language problems but also with some other conditions such as correcting speech disorders*”.

#### 4.9 Theme 1e. Other Conditions

There were other respondents who reported that the speech and language therapists manage some other conditions that might be either medical or non-medical. One student (GP12) said “*they help people to use vowels properly*”. GP06 also answered “*they assess children to allay fear and anxiety*”. Answers provided under this theme did not identify the role of the SLTs to be involved in the management of speech and language disorders.

#### 4.10 Setting where SLTS can be found.

Participants were asked where they may find a SLT. The responds of students have been categories into the Table 4.3 below.



**Table 4.3. SLTs in Ghana**

<b>Settings</b>	<b>Number of participants (N=19)</b>	<b>Particular institution</b>
Re-habitation Centres	1	Accra Re-habitation Centre
Schools	2	School (Montessori), Preschools, and Special schools  University of Education
Hospital	6	Komfo Anokye Teaching Hospitals  Accra Psychiatry Hospital,  Korle-Bu Teaching Hospital
Speech and Hearing Centre	1	Speech and Hearing Centre-(Kasoa)
Orphanages	1	Osu Children's Home

Some students, 2/19 reported that speech and language therapists can be found in schools. Majority 6/19 of the students said speech and language therapists can be found in hospitals and each respondent reported that they can be found in re-habilitation centers, speech and hearing centers and orphanages.



#### 4.11 Categories of People SLT Attends to

One way of knowing what the speech and language therapist does is to be able to identify the caliber of people attended to. Therefore, participants were asked which people the SLTs attend to, they responded with varying answers. One student (GP04) answered *“I know they provide services for people who have traumatic events and even normal people”* other respondent (GP09) identified children who have been assorted to be one of the people a SLT attends to by saying; *“I think they also attend to children who have been assorted”*. Accident patients were also one group identified as people SLTs attend to. GP07 added, *“Mostly, I know they work with patients who have had some form of accident and due to that, they have lost the ability to speak to be able to communicate”*. Children who stammer and preschoolers were also identified as people SLTs attend to. GP08 mentioned that *“they help children who stammer and preschoolers”*. People with conditions like autism and brain damage were also identified by some students as those SLTs attend to. For instance, GP11 said *“autistic children and people with brain damage also need the help of a SLT”*. Stroke patients were not left out of the list of people SLTs attends to. This GP12 said *“when people get stroke, sometimes, they lose the ability to speak and may also need the help of the SLT”*. Children born with cleft palate were also identified as people who need the attention of the SLT because another student GP15 has this to say *“children who are born with cleft palate will also need the help of the SLT because their condition affects their speech”*. Other conditions mentioned by some respondents were deaf and dumb people with laryngeal cancer and head injuries. GP16 said *“I think deaf and dumb people needs the help of the SLT”*. GP13 added, *“People with laryngeal cancer also need the help of a speech and language therapist”* GP14 also added that *“people who have had head injuries will also need the help of a speech and language since it can affect their ability to speak”*.

#### 4.12 Professional SLTs may Work with

To further explore student knowledge on what a speech and language therapist do, participants were asked to identify other professionals that SLTs may work with. Results of their responses are shown in the table 4.4 below.

**Table 4.4. Professional SLTs may work with**

Professionals	Number of Participants (N=19)
Doctors	4
Nurses	3
Teachers	2
Parents	1
Social and Vocational workers	1
Nutritionists	1
Physiotherapists	1
Occupational therapist	1
ENT specialist	1
Psychologist	1

#### 4.13 When are the services of the SLT no longer needed?

Finding out when a person might no longer need the services of a SLT, students were asked to mention instances where they think a person might no longer need SLT's services. Some reported

that the actual time when a person no longer needs the services of a speech and language therapist is the sole prerogative of the speech and language therapist. GP6 replies:

*“as to clients not needing the services of the therapist, therapist has the final say, it depends on the therapist, like if the therapist says that where the client has gotten to, he/she is okay to go, that is how a person might no longer need the services of SLTs”*GP4 added:

*“a person might no longer need the services of a SLT after the person (client) has shown desirable improvements in the person’s health and condition and also the therapist has reviewed the person and has finally discharged the person and also if the person (therapist) sets objectives, like by this time the child should be able to do this or that, and the child is able to meet that standard or objective, then, that child may no longer need the services of the therapists”.*

GP5 also added:

*“Sometimes, when a child has speech problem, you take the child through some series of activities or exercises, as time goes on, and you realize that the child is able to do pronounce or talk very well, that’s when you say that, this time your child is improving, so you decide that he or she should be discharged”.*

(GP09) stated that, it depends on the patient. (GP09) suggested *“I think it depends on the patients too; the person has the right to stop or continue with the care”*. Another person reported that when all interventions fail, there will not be any need for the SLT anymore. GP08 also mentioned that *“when all interventions fail, and the therapist has done this and still no improvement, I think the person might no longer need the services of the SLT”*. GP15 said *“when the person is no longer interested and when pronunciation is clear for adult”*.

Participant 11, 12, 13 and 14 stipulated that as at when there is an improvement in the patient's condition, he/she might no longer need the services of the speech and language therapist. GP13 said *“when there is an improvement in condition or when child is able to say words appropriate for age or when one can perform orders with little or no assistance”*. GP11 also said *“when the person can now coordinate”* GP14 added *“when there is regaining of speech by the patients”*. And GP12 also said *“when children can use the alphabetical sound well”*.

#### **4.14 How will students be able to identify if a child has a speech and language disorder?**

To answer these question participants were asked the possible causes of communication disorders, feeding disorder, swallowing disorder and speech and language disorder, responses ranged from hereditary, lifestyle, accidents to medical conditions.

##### **Hereditary**

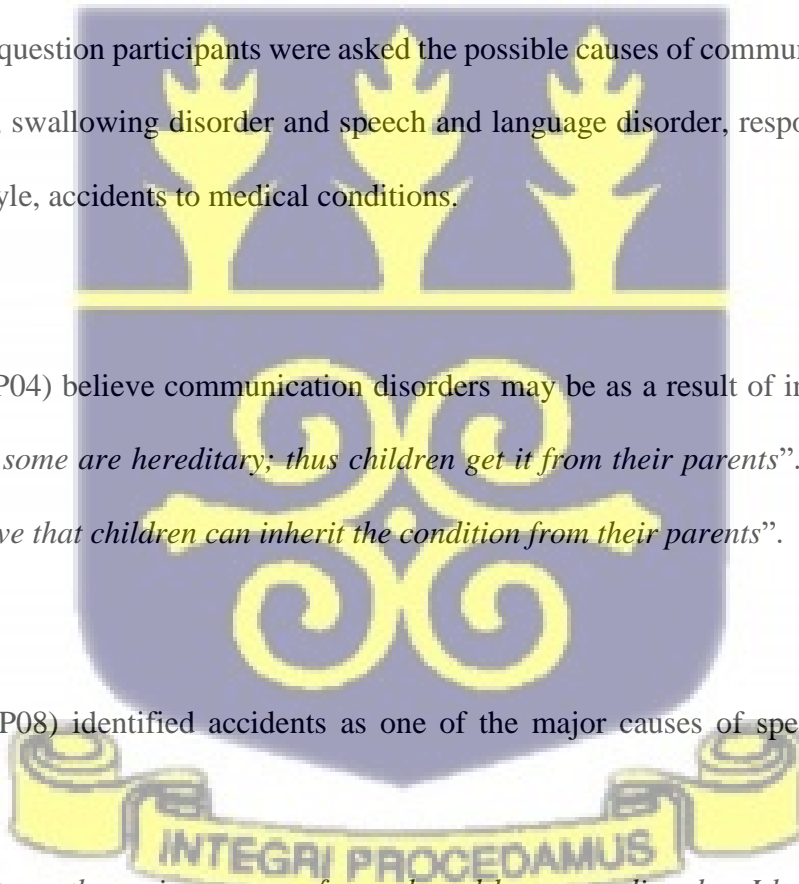
Participant 4 (GP04) believe communication disorders may be as a result of inherited trait from parents. *“I think some are hereditary; thus children get it from their parents”*. GP15 also added that *“I also believe that children can inherit the condition from their parents”*.

##### **Accident**

Participant 8 (GP08) identified accidents as one of the major causes of speech and language disorders.

*“I think accident are the major causes of speech and language disorder, I have known a lot of people who had accidents and after that they couldn't talk properly again”*

##### **Lifestyle**



GP03, GP04 and GP09 attributed causes of speech and language disorders to drug use and infections. One student (GP04) said “*when mothers use drugs during pregnancy, their children may develop speech and language problem when they are born*”. Another (GP03) added “*alcohol use and drug abuse, shock from abuse can also lead to speech and language disorders*”. One respondent (GP09) also attributed the causes to infection.

“*I think when people live under extremely unhygienic condition, their children could be exposed to some bacteria that can affect their ears and then lead to the loss of hearing*”.

#### 4.15 Medical conditions

Eight respondents attributed the causes of speech and language disorders to some medical abnormalities. Table below shows the responses by these respondents

**Table 4.5. Medical condition that causes Speech and Language disorders**

Medical condition that causes Speech and Language disorders	Number of Respondents (N=19)
Cancer	3
Injury	2
Deformity	2
Hereditary	1

#### 4.17 Indications of Feeding Disorders

Participants were asked how they will be able to identify if a person has got some feeding disorders.

GP04 responded, “*babies who find it difficult to suckle, children who are unable to finish their*

*meals and also stroke patients with difficult in chewing, I think they have feeding disorders”* GP03 added that *“children who are always looking hungry and picking up things thus behaving hungry have feeding disorder”*. GP08 also added *“children with big tongue find it difficult to chew and that is a feeding disorder”*. Another student (GP05) added *“children who have lost weight might also have some form of feeding disorders”*

One student (GP19) from the general nursing group attributed feeding disorder to when a person is not able to swallow very well. *“When a person is unable to swallow food, I think that person has a feeding disorder”*. GP14 also added that *“I think when a person easily gets choke while eating; he/she might have some feeding disorder”*. GP17 also added, *“I see drooling as sign that a person has some feeding disorders”*. GP11 mentioned that *“aspiration is also a sign of feeding disorder”*. GP15 and GP13 identified regurgitation as a major indicator of feeding disorder.

### **Signs of Swallowing Disorders**

Participants were asked to identify signs of swallowing disorder. This GP08 mentioned that *“people who mostly drool have swallowing disorder”* GP04 also added, *“when people put large amount of food in their mouth but not able to swallow or a mass blocking the food from descending the throat”*. GP03 also added that *“loss of weight, dehydration, lack of nutrient and getting hungry easily”*. GP13 *“people who experiences sticky throat during swallowing or sore throat”*.

### **Signs of Speech and Language Disorder in a Person**

Students were asked to describe how they might identify a person with speech and language disorder. GP06 responded *“when I see people who stammer, I know they have speech and language problem”*. GP03 also added, *“When one finds it difficult to understand children and vice*

*versa, it implies that either the child or the person has speech and language problem*". GP08 noted that *"people with confused speech or displacement of language have speech and language disorder"*. GP04 added that *"when people have difficulty in understanding other forms of language as in the case of non-verbal languages, they may also have speech and language disorder"*. GP05 also alluded that *"people with disorientation of time and place and inability to complete sentences have speech and language disorder"*. GP07 also noted that a person who looks confused all the time has speech and language disorder. GP09 said people who are unable to pronounce certain words have the disorder".

#### 4.18 Are students aware that speech and language disorders are managed?

Participants were asked whether speech and language disorders are treatable or not. Responds to this question were mixed. 11/19 students responded to this question. Some said they are treatable, a second group said they can only be managed and third group said they are managed or treated based on the condition. Below is the graphical representation of the results;



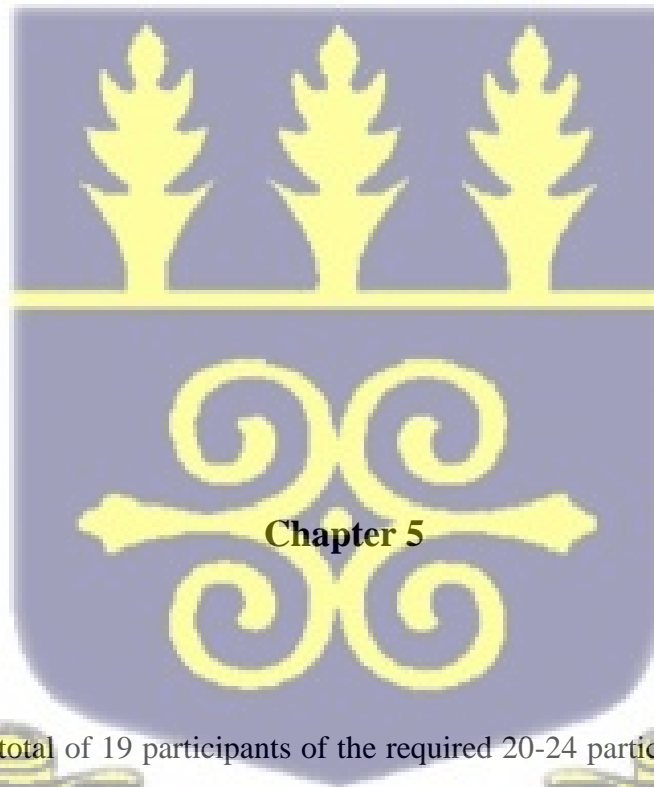
**Figure3. Student's awareness of how speech and language disorders are managed**

**4.19 How feeding disorders can be corrected**

Participants were asked how feeding disorders can be corrected. GP04 replied *"I think with children, feeding the child with what they like will make them eat but when it comes to adults like stroke patients with difficulty in chewing, liquids could be given or tube feeding could be used"*. GP05 added *"children with feeding disorder, their foods can be served in shapes that will attract them to eat"*. GP10 also added *"modification in diet could help in feeding people with feeding disorder"*. Participant 14, was of the view that assessing the cause and administering the appropriate procedure will be the right way to go. GP14 said, *"I think finding underlying causes and treating accordingly is the best thing to do"*. Others, GP19 mentioned *"It can be corrected surgically"* while GP17 added that *"it can be corrected by surgical means and be passing NG tube"*. GP15 suggested *"medical and surgical means can be used to treat appropriately and the use of gastro feeding could also work"*. GP13 also mentioned that *"feeding slowly, feeding with spoon and cup and repair of cleft for those with that condition will be appropriate"*. GP11 listed methods that necessarily do not need any medical ingenuity *"one can also correct this condition by making the person sit upright after feeding and small feeds at frequent intervals"*.

**4.20 How to manage Swallowing Disorder**

Participants were asked to identify ways of managing swallowing disorders. Almost all the respondents mentioned the passing of NG tube. Only one (GP13) recommended that *"food can be given in small bits or when blended"*.



## Chapter 5

### 5.0 Discussion

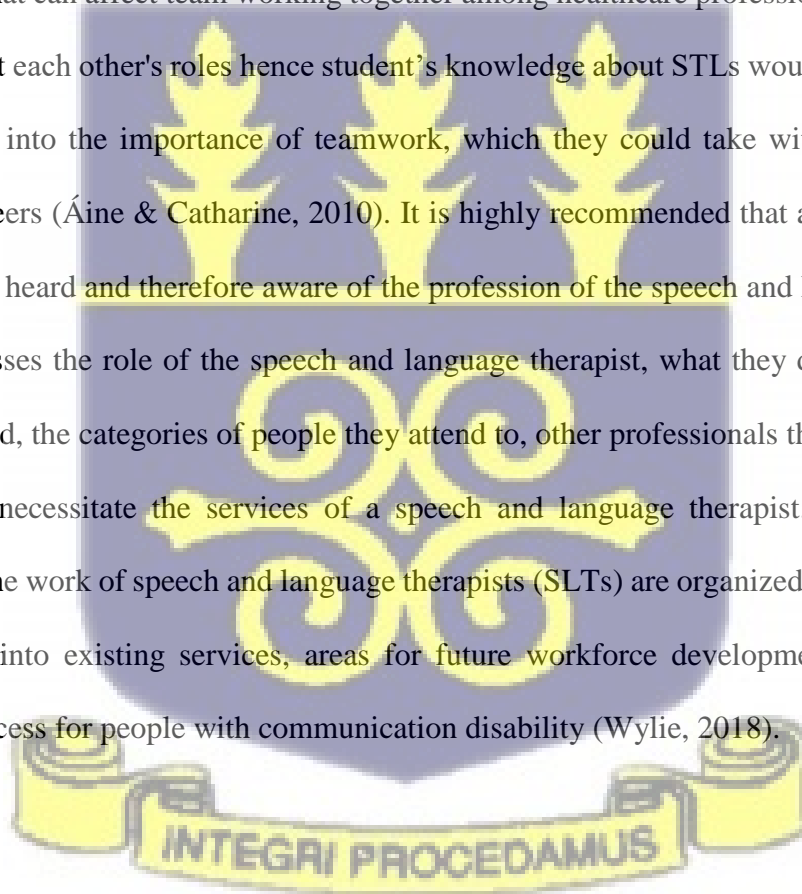
The study sampled a total of 19 participants of the required 20-24 participants and this included 10 participants from the midwifery departments and 9 participants from the general nursing class. These participants were all final year students of the college indicated in. The acronym GNS represents General Nursing Student and MS means Midwifery Student. The total number of students in the two classes was 211 compressing of 114 midwifery students (all females) and 97

general nursing students of which only 15 were males. However, participation in the study was mainly based on the student's willingness to participate.

All participants were between the ages 20 and 29; and were final year students of the college. This statistic is not far fetched from that of the school statistics. Three of the participants were married and the rest were single.

### **5.1 Knowledge about Roles of Speech and Language Therapists**

Major barriers that can affect team working together among healthcare professionals is the lack of knowledge about each other's roles hence student's knowledge about STLs would help them build valuable insight into the importance of teamwork, which they could take with them into their professional careers (Áine & Catharine, 2010). It is highly recommended that all the participants in this study had heard and therefore aware of the profession of the speech and language therapist which encompasses the role of the speech and language therapist, what they do, settings where they can be found, the categories of people they attend to, other professionals they work with and conditions that necessitate the services of a speech and language therapist. Literature says exploring how the work of speech and language therapists (SLTs) are organized and delivered can provide insight into existing services, areas for future workforce development and improved rehabilitation access for people with communication disability (Wylie, 2018).



## 5.2 Role of a Speech and Language Therapist

When asked about the role of a speech and language therapists, some participants were of the view that they help people with speech problem only. Others said they help people with speech problems and other conditions. Some also identified SLTs as people who help with language problems while others reveal that they help people with speech and language problems. There were other respondents who mentioned other medical conditions rather than speech and language issues. These responds were all not farfetched from the role of the SLT as it encompasses all of the above-mentioned roles. The speech and language therapists play several roles that are far broad. For instance, one role of the SLT as identified in another study is that they often advise people such as volunteers, family and caregivers, health-care providers and other staff on the approaches to appropriate to safe swallowing and communication (McCartney & Muir, 2015). In a research that investigated how speech and language therapists perceive their role in the delivery of palliative care to clients, speech and language therapists believe they have a role through the management of communication and swallowing difficulties (dysphagia) in palliative care (O'Reilly & Walshe, 2015). In a recent study in the UK, researchers have concluded that Speech and language therapists have a duty to develop a relevant evidence base for speech and language interventions for people with primary progressive aphasia (Volkmer, 2020).

Mahmoud *et al.*, (2014), also suggested that the Speech-language therapist concern itself with the study and understanding of human communication and its disorders, assessment and treatment of swallowing, speech-language, and cognitive-communication disorders that result in communication disabilities which agrees with the findings of this study.

According to Hawksley *et al.*, (2017), the speech and language therapist may also deal with adults with age-related or acquired conditions such as head and neck cancer, Parkinson's disease, stroke, or dementia and this confirms what some respondents mentioned that the SLTs also deals with some medical conditions rather than speech and language issues.

### 5.3 Setting where SLTs can be found.

Places identified by respondents as settings where speech and language therapist could be found were Re-Habilitation Centers, Schools, hospitals, Speech and Hearing centers and Orphanages. As true as it is, settings where a SLT can be found or should be found exceed the boundaries of these five mentioned places by the respondents of this study. ASHA's (2010) agrees with this view point when they identified schools as one of the settings that the SLTs can work and this was further emphasized by Stem *et al.*, (1995) as their study suggested that the educational attainments of children can adversely be affected for those with severe speech and language disorders if they are not carefully managed.

Other studies have also shown that the SLT as an allied health professional works directly with professionals from other background such as occupational therapists, teachers and nurses by providing support to them and their carrier. Hence include working in settings like the hospitals, nursing homes, communities, hospices and palliative patients in recent years (Pollens, 2012). Again, another study found that in providing the appropriate support for effective communication, the SLTs usually work alongside the patients' families, and the wider multidisciplinary team (MDT), to identify communication difficulties which is essential for facilitating and advocating patient choice (Hawksley, 2017).

#### **5.4 Categories of people a SLT attends to**

People with traumatic experiences, normal people, assorted children, accident patients, preschoolers, children who stammer, children with autism, people with brain damage, stroke patients, children born with cleft palate, deaf and dumb, people with laryngeal cancer and people with head injuries were the list of people identified by participants as people the STL attends to. However, the list of people the SLT attends to goes beyond what have been mentioned by participants. Other studies found categories of people the speech and language therapist attend to, similar to what this study found. For instances, Mclaughlin & Maura (2011) found children as one of the categories of people the SLTs attends to in order to help them develop speech. Hawksley et al., (2017) also affirms this when they suggested that aside children, the SLTs also deals with adults with age-related or acquired conditions such as head and neck cancer, Parkinson's disease, stroke, or dementia.

#### **5.5 Professional SLTs may work with**

Doctors, nurses, teachers, parents, social and vocational workers, nutritionists, Physiotherapists, Occupational therapist, ENT specialist and Psychologist were named by respondents as professionals that may work with SLTs. Similarly, a study by Pollens (2012), also identified SLT as an allied health professional works directly with professionals from other background such as occupational therapists, teachers and nurses by providing support to them and their carrier.

Another study conducted in Australia that aimed at investigating the needs of both professional groups and their preferences for service delivery when working with mainstream, primary school-aged children with speech and language condition; there was an increased desire for training in knowledge and more collaborative practice between teachers and SLTs (Glover, 2015). Other professionals that the SLT can work with are the special education teachers, literacy coaches and reading specialists and this is according to the Georgia Department of Education (GDOE, 2007)

### **5.6 When are the services of the SLT no longer needed?**

Participants were of the view that one may no longer need services of the SLT only when therapist decides. One participant was of the view that it solely depends on the patient. Another participant also reported that when all interventions fail, there will not be any need for the SLT anymore and some other stipulated that as at when there is an improvement in the patient's condition, he/she might no longer need the services of the speech and language therapist. Study by Chahda et al., (2016) revealed that, SLTs will feel needed and be willing to do more if their inputs well implemented by other members of MDT. They also added that the scope of their work poses changes when it comes drawing a unique set of guidelines to inform their work.

As mentioned by some students, in some cases the therapist determines when the patient will no longer need their services. For instance, in a study that looked at Voice-Specialized Speech-Language Pathologist's Criteria for Discharge from Voice Therapy, finding indicated that SLPs agree that a patient's ability to use voice techniques in conversation and real-life situations outside of the therapy room are the most important determinants for voice therapy discharge (Gillespie &

Gartner-Schmidt, 2018). This implies that to some extent the therapist can determine when to discharge a patient.

### 5.7 How will students be able to identify if a child has a speech and language disorder?

According to Morgan et al., (2016), there are challenges with the diagnoses of speech and language disorders in children younger than three years of age because the manifestations are typically not seen or able to be elicited until the child has acquired sufficient speech to complete the verbal assessment tasks. This was not very eminent in the responses of student to how to identify speech and language disorders. Most of the answers given pertained to ages above three years. In some research it has been suggested that one of the ways to identifying a child has a speech and language problem is using language assessments to rate an individual's performance and compare that performance to peers and if the child score falls a certain amount below average, they are diagnosed with a language disorder and begin receiving services from a licensed SLP (Gress & Hill, 2018). Babies' inability to suckle, children unable to finish their meals, stroke patients, children always looking hungry difficulty in chewing caused by big tongue, loss of weight, inability to swallow food, getting easily choked whiles eating, drooling, aspiration and regurgitation as a major indicator of feeding disorder by the finding from this study. Allergic disorder arising due to CS can be an indication feeding disorder (Chu, 2017). This implies that when children delivered through CS begin showing allergy to food, it can be seen to an extent as a feeding disorder developing.

A typical anorexia nervosa, bulimia nervosa of low frequency/limited duration, binge-eating disorder of low frequency/limited duration, purging disorder, night eating, Chewing and spitting

of food, and non-fat phobic anorexia nervosa syndrome are indications that a person has feeding disorder. (Ranson, 2017).

It is also very important to note that children have inconsistent food refusal, which is heavily dependent on their mood. These children are not afraid to eat but rather do not have the hunger drive compelling them to eat. In addition, they have no particular limits on the types of food they will eat. With some children, the food avoidance is more predictable and is based on an aversion to a particular taste, texture, temperature, smell, or look of the food, rather than the more overarching food refusal seen with other children. Some children have an extreme aversive reaction such as severe gagging or vomiting, or when forced can then trigger gagging and vomiting (Chatoor & Begtrup, 2018).

### **5. 8 Signs of Speech and Language Disorder in a Person**

Stammering, difficulty in understanding children and vice versa, people with displacement of language, difficulty in understanding non-verbal languages, people with disorientation of time and place, inability to complete sentences, looking confuse all the time, and the inability to pronounce certain words are all indication of speech and language disorder per the findings from this study. Findings from this study seems to be consistent with findings from other studies. For instance, Morgan et al., (2016) found that Delayed speech development, Poor oral motor function (e.g., excessive drooling, early feeding difficulties), Oral motor difficulties and/or oral motor dyspraxia, Dysarthria, Receptive and expressive language impairment, Low average IQ, typically with poorer verbal IQ compared to nonverbal IQ (and average nonverbal IQ reported in some), Mild morphology may rarely be present, Autistic features, Reading and spelling impairment, Fine and

gross motor impairment were some signs of speech and language disorders in persons. Also, according to O'Hare (2016), issues with speech production involving collection of systems like praxic (planning/programming of spatiotemporal parameters of movements of the articulators for speech), prosodic (stress, intonation and voice quality that conveys meaning and affect) and phonological (cognitive and linguistic) articulatory (sensorimotor) are directly related to Speech development.

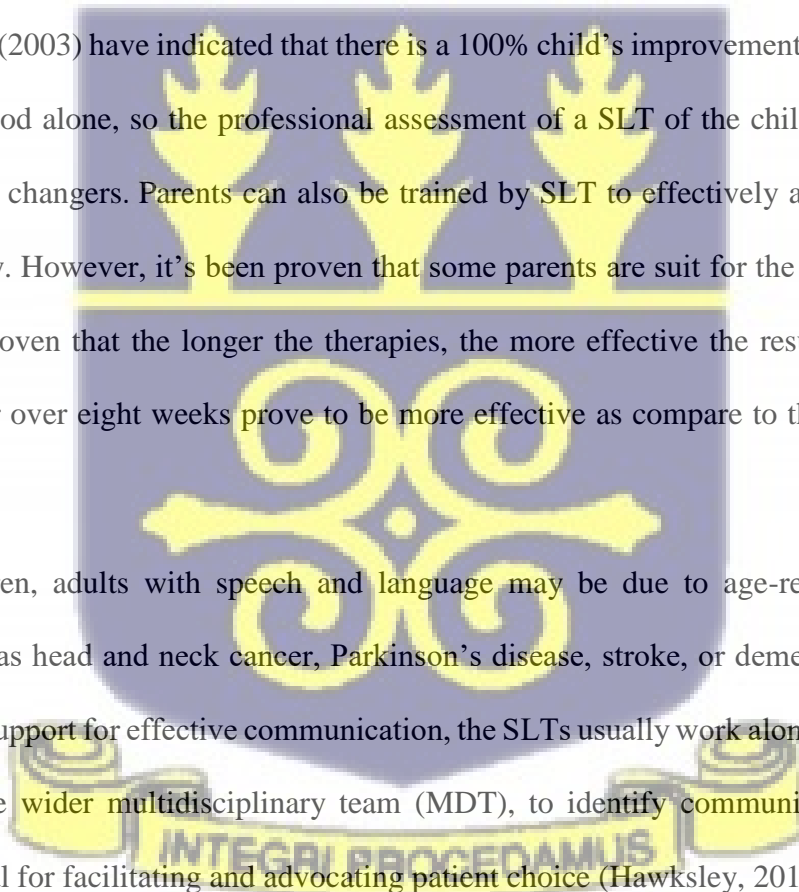
Most of the times speech and language issues are clearly identified when people especially children when there is difficulty in speaking however, some study have shown that the situation becomes more serious when the situation persist after the fifth year (Snowling, 2006). Again, McRae et al., (1991) found that the possibility of difficulties prolonging in children with speech and language problems seem to have a positive correlation to the range of language problems and the delay in speech development.

### **5.9 Is Students Aware of how Speech and Language Disorders are managed?**

Some students believe speech and language disorders can be treated while other they can only be managed and third group said they are managed or treated base on the condition. Hereditary, lifestyle, accidents and medical conditions were identified as the major causes of speech and language disorders in this study.

According to literature, management of speech and language disorders comes in different forms. For example, in some instances, children can be assisted by their families in language development through the process of storytelling, word playing games, songs and rhymes recitals, engaging in various dialogs through questions and conversation, and collective book reading (Green, 2002). McLaughlin & Maura, (2011) also recommended the use of the “rule of fours”: thus, if one should divide the child’s age by four, the results should be equal to the amount speech that child could understand. This therefore implies that a one-year-old child could understand quarter of the time, 2 years old should understand half of the time, three years should understand three quarter of the time, and by logic, by age four the child should be able to understand close to the whole of the time. Roulstone et al., (2003) have indicated that there is a 100% child’s improvement with the carefully monitoring method alone, so the professional assessment of a SLT of the child can be the most significant game changers. Parents can also be trained by SLT to effectively administer speech-language therapy. However, it’s been proven that some parents are suit for the job than others. It has also been proven that the longer the therapies, the more effective the results. For instance, therapies last for over eight weeks prove to be more effective as compare to those lesser (Law., 2003).

Unlike in children, adults with speech and language may be due to age-related or acquired conditions such as head and neck cancer, Parkinson’s disease, stroke, or dementia. In providing the appropriate support for effective communication, the SLTs usually work alongside the patients’ families, and the wider multidisciplinary team (MDT), to identify communication difficulties which is essential for facilitating and advocating patient choice (Hawksley, 2017).



### 5.10 How Feeding Disorders can be corrected

Feeding the child with what they like will make them eat, given or tube feeding could be used for people with chewing disorder, foods can be serving foods in shapes that will attract them to eat, modification in diet could help in feeding people with feeding disorder. Participant GP17 was of the view that assessing the cause and administering the appropriate procedure will be the right way to go. There were also suggestions that it can be corrected surgically, passing of NG tube, and use of gastro feeding, feeding slowly, and repair of cleft for those with that condition. Participant GP13 also suggested that the condition can be corrected by making the person sit upright after feeding and small feeds at frequent intervals.

When a child is experiencing poor hydration, nutrition, and/or growth, a child's pediatrician may suggest placement of a nasogastric (NG) tube (Suzanne, 2013). Respondents from this study suggested the passing of NG tube. Only one participant (GP10) recommended the blending of food or giving food in small bits. This suggest that participant had very low knowledge on this method of feeding disorder management.



## CHAPTER 6

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### 6.0 Introduction

This chapter presents the summary of the study, the conclusions made based on the study findings and the recommendations were also made based on the conclusions drawn.

#### 6.1 Summary

The study sorts to assess the knowledge of Trainee Nurses on the role of speech and language therapist at the Korle-Bu Nursing and Midwifery College. It assesses knowledge level of students on the role of a speech and language therapist within the purview of the following questions:

1. What kind of knowledge do trainee nurses at the Korle-Bu Nurses and Midwifery Training College have about the role of speech and language therapist?
2. How will students be able to identify if a child has a speech and language disorder?
3. Are students aware of how speech and language disorders are managed?

The study was carried out at the Korle Bu Nurses Training College a public tertiary health institution in Accra in the Greater Accra Region of Ghana. The college is in the Accra Metropolitan Assembly and can be found a few meters from the Korle-Bu Teaching Hospital (KBTH) down the Alexandra Street. It was a qualitative study that employed focused group discussion involving 20-24 participants randomly selected among the third years trainee nurses at

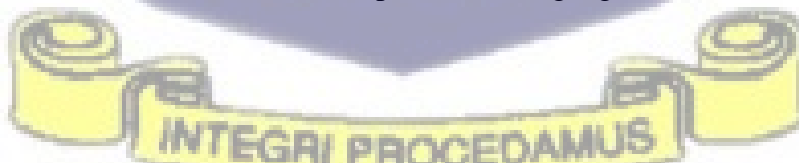
the Korle-Bu Nursing and Midwifery College on the knowledge about the role of speech and language therapist. Data was analyzed using the NVIVO version 12. This final chapter will seek to draw the curtains to a close on the entire work, by providing a summary of the key findings, draw conclusion and further outline recommendations drawn from the fallout of the study.

## 6.2 Conclusion

The following conclusions are made in relation to the objectives of the study.

### 6.3 Knowledge of Trainee Nurses at the Korle-Bu Nurses and Midwifery Training College about the Role of Speech and Language Therapists

The role of a speech and language therapists encompasses what they do, settings where they can be found, the categories of people they attend to, other professionals they work with and conditions that necessitate the services of a speech and language therapist. Some respondents in the study knew speech and language therapists as professionals who help people with speech problems only. Others perceived them to with speech problems and other conditions. Some also identified SLTs as people who help with language problems while others saw them as professionals who help people with speech and language problems. There were however few others who mentioned that they attend to other medical conditions aside speech and language issues.



### 6.4 How to Identify a Child Has a Speech and Language Disorder

To be able to tell if a child has a speech and language disorder, one must be able to know the causes of communication disorders, feeding disorder, swallowing disorder and speech and

language disorder. Four responses evolve from the students and it ranged from hereditary, lifestyle, accidents to medical conditions.

### **6.5 How Speech and Language Disorders are managed**

A little over half of the students knew that speech and language disorders can be managed. Of these, some said they are treatable, a second group said they can only be managed and third group said they are managed or treated based on the condition. Management methods suggested by the participants for those with feeding disorders were assessment of the cause and administering the appropriate procedure. Feeding patients with feeding disorders with what they like, serving food in shapes that will attract them, modifying diet and making patients sit in an upright position after feeding and giving small amount of feeds at frequent intervals. For people with chewing disorders, giving tube feeding and the use of gastro feeding was recommended. Repair of cleft for those with cleft lip and palate was recommended since it can also affect speech and feeding of patients. Speech and language disorders can also be corrected by surgical means.

### **6.6 Implications for Nurses Training in Ghana**

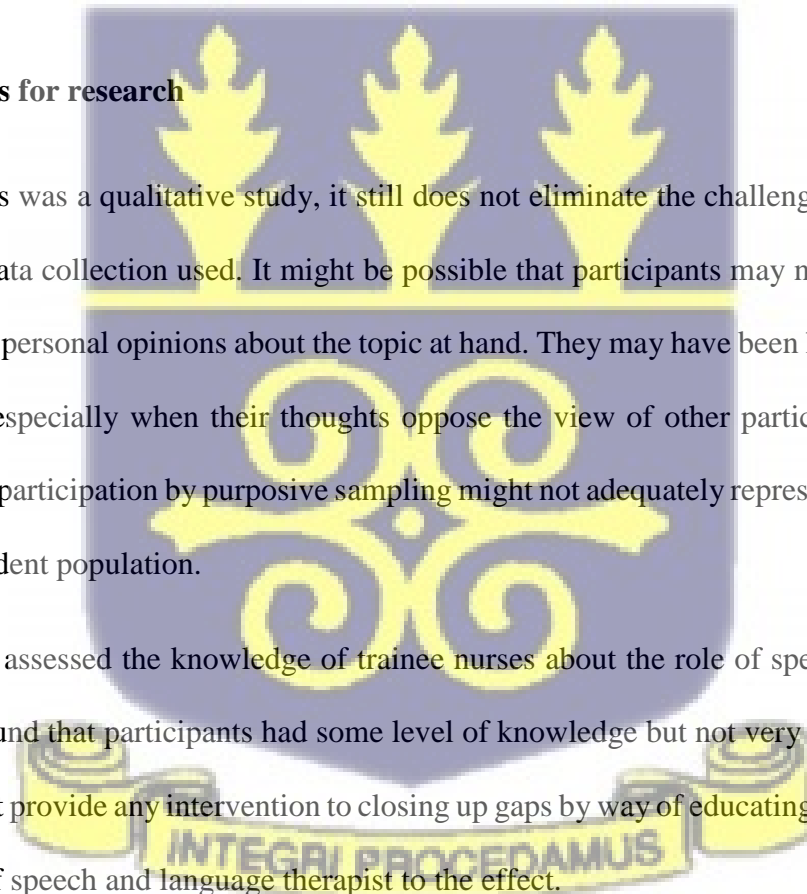
Findings from this study indicated that trainee nurses have some but not very comprehensive knowledge about the role of speech and language therapists. As these nurses are going to be rolled out into the health care system, they are going to implement this limited knowledge about the role of speech and language therapists. It is therefore important to address this while they are in the training process before they are ushered into the larger work force. Recommending the findings to

the Nurses and Midwifery Council of Ghana for further action to be taken in respect to inculcating the creation of the awareness of the role of SLTs in the curriculum of the nursing training will empower nurses to have a comprehensive knowledge of the role that SLTs play in the health care system. When this happens, nurses will be able to identify if a child has a speech and language disorder for early identification and interaction. Nurses will also have some knowledge of where SLTs can be found, and will be able to refer clients with such difficulties to the appropriate centers. Nurses would be able to advocate and educate the general public on the communication milestones and look out for red flag for early diagnosis and treatment.

### **6.7 Implications for research**

Even though this was a qualitative study, it still does not eliminate the challenges that come with the method of data collection used. It might be possible that participants may not have expressed their honest and personal opinions about the topic at hand. They may have been hesitant to express their thoughts, especially when their thoughts oppose the view of other participants. The small sample size and participation by purposive sampling might not adequately represent the knowledge of the larger student population.

This study only assessed the knowledge of trainee nurses about the role of speech and language therapist and found that participants had some level of knowledge but not very comprehensive. It however, did not provide any intervention to closing up gaps by way of educating the trainee nurses about the role of speech and language therapist to the effect.



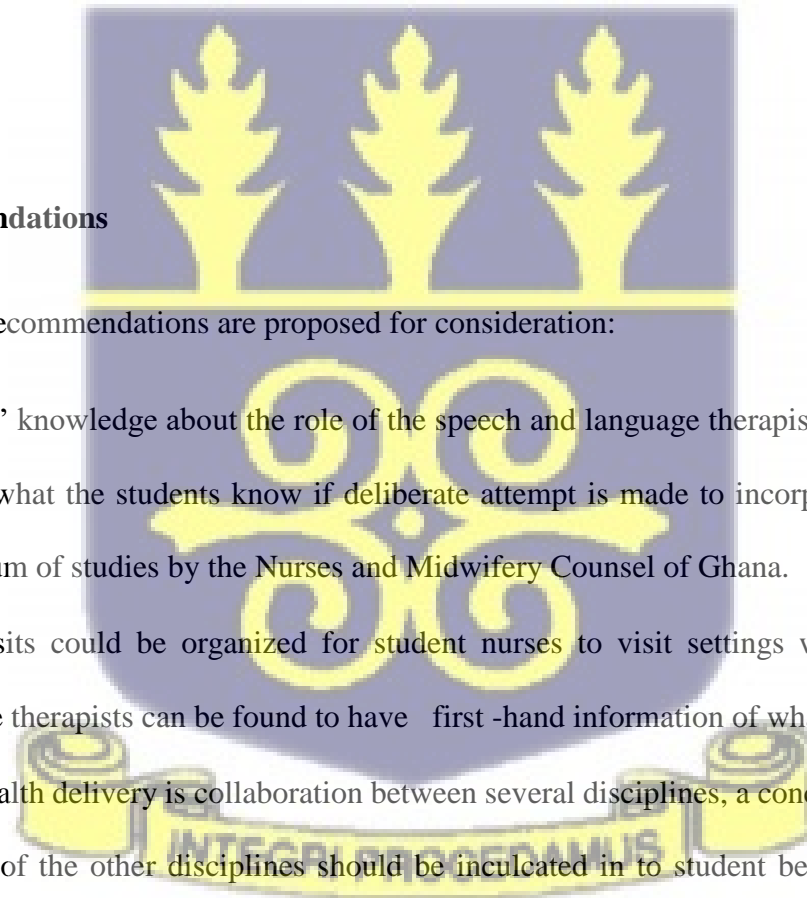
## 6.9 Limitations of the study

At the time of study participants were preparing for exams, this made it difficult for to participate. Even during the discussion researcher noticed participants were much in a hurry to go and study for their exams. This could have affected the quality of the answers they provided. The study also only assessed knowledge of participants but did not provide any form of intervention. That apart the sample size used could not have been the true reflection of the knowledge of all the trainee nurses on the subject matter though it provided an in-depth assessment of the knowledge about the role of speech and language therapists of those who participated.

## 6.10 Recommendations

The following recommendations are proposed for consideration:

- Students' knowledge about the role of the speech and language therapist can be enhanced beyond what the students know if deliberate attempt is made to incorporate it into their curriculum of studies by the Nurses and Midwifery Counsel of Ghana.
- Field visits could be organized for student nurses to visit settings where speech and language therapists can be found to have first-hand information of what they do.
- Since health delivery is collaboration between several disciplines, a concrete awareness of the role of the other disciplines should be inculcated in to student before they join the workforce.



- Further study on the knowledge of nurses and midwives trainees about the role of a speech and language therapists can positively enhance their delivery of service.

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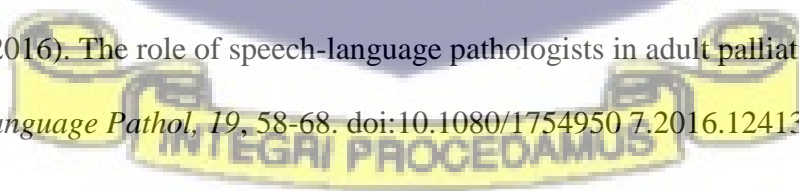
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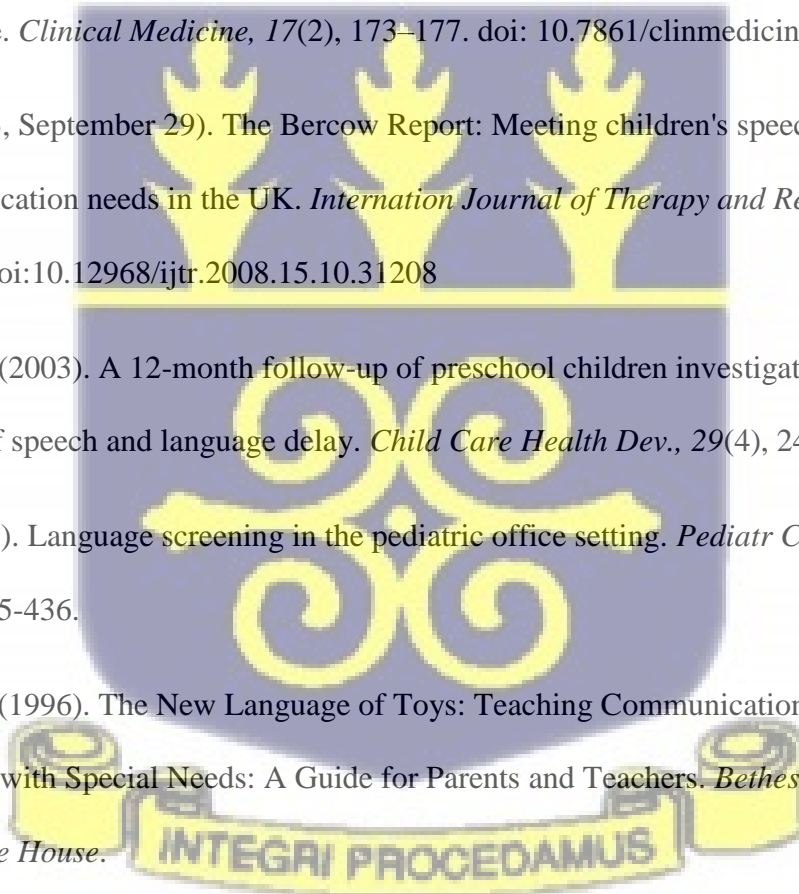
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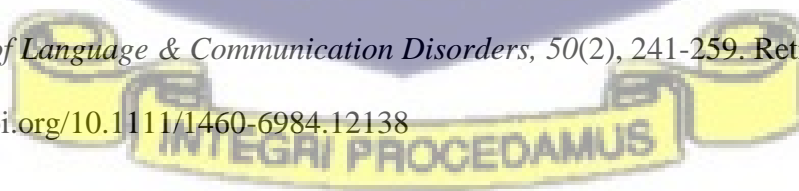
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## APPENDICES

### Appendix 1: Structured Interview Guide for Focused Group Discussion.

#### THE KNOWLEDGE OF TRAINEE NURSES ON THE ROLE OF SPEECH AND LANGUAGE THERAPISTS.

Instructions:

This guide is to collect data on your knowledge about the roles of Speech and Language Therapists. I will be grateful if you could make time to complete it. Every piece of information will be held in absolute confidence.

#### SECTION A: Demographic and Surgical Data

1. Age of Respondent: (age at last birthday) a) 15-19 [  ] b) 20-29 [  ] c) 30-39 [  ] d) 40-49 [  ]
2. Gender: a) Male [  ] b) Female [  ]
3. Marital status: a) single [  ] b) married [  ] c) divorced [  ] d) others (specify).....
4. What is your level? a) first year [  ] b) second year [  ] c) final year
5. Are you aware of the profession of speech and language therapy? Yes/No

**SECTION B: Knowledge on the role of Speech and Language Therapist**

6. Please describe what speech and language therapists do

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7. Identify any work place/setting where a speech and language therapist can be found.

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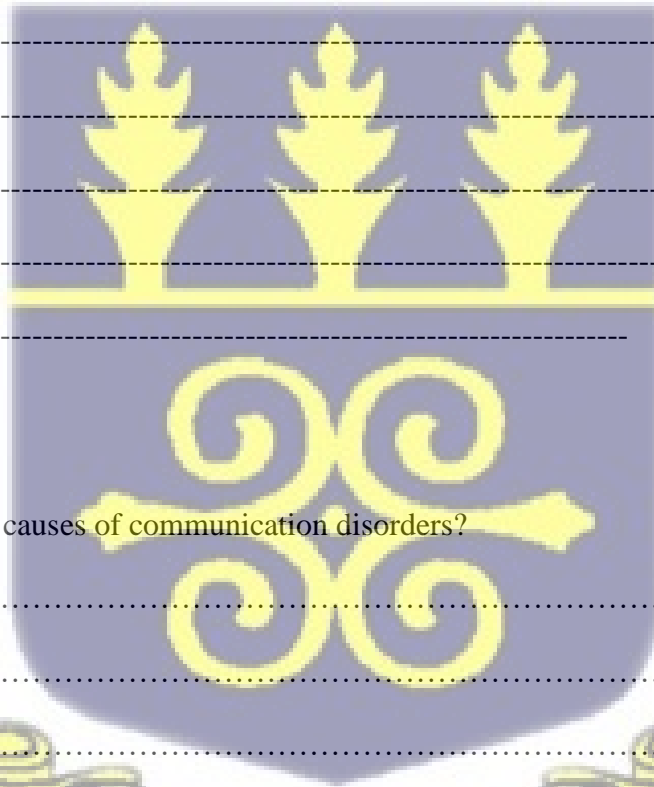
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8. What may indicate that a person has a communication disorder? -----

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9. What are possible causes of communication disorders?

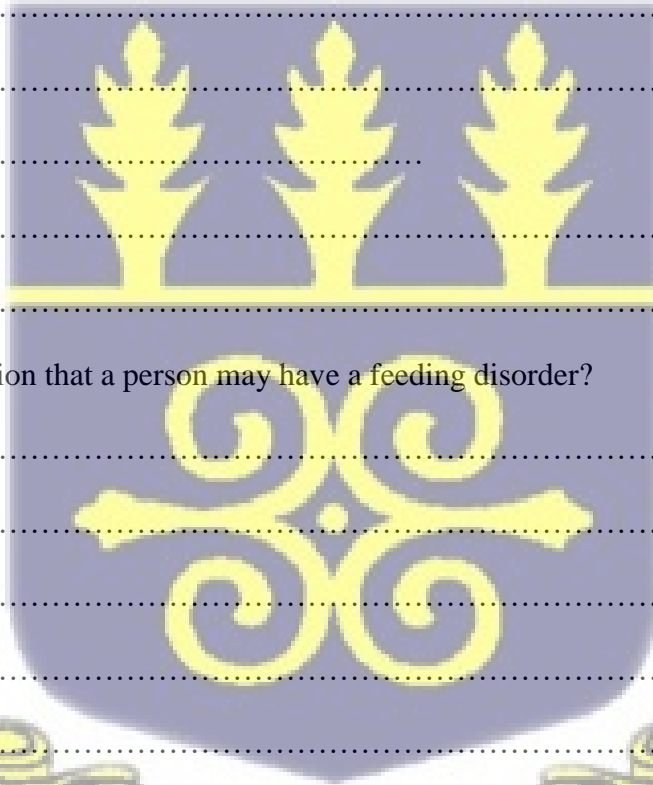
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10. Are communication disorders treatable? YES/NO

11. If yes, how can they be treated?

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12. What is an indication that a person may have a feeding disorder?

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13. What treatment method will you recommend for someone having a feeding disorder?

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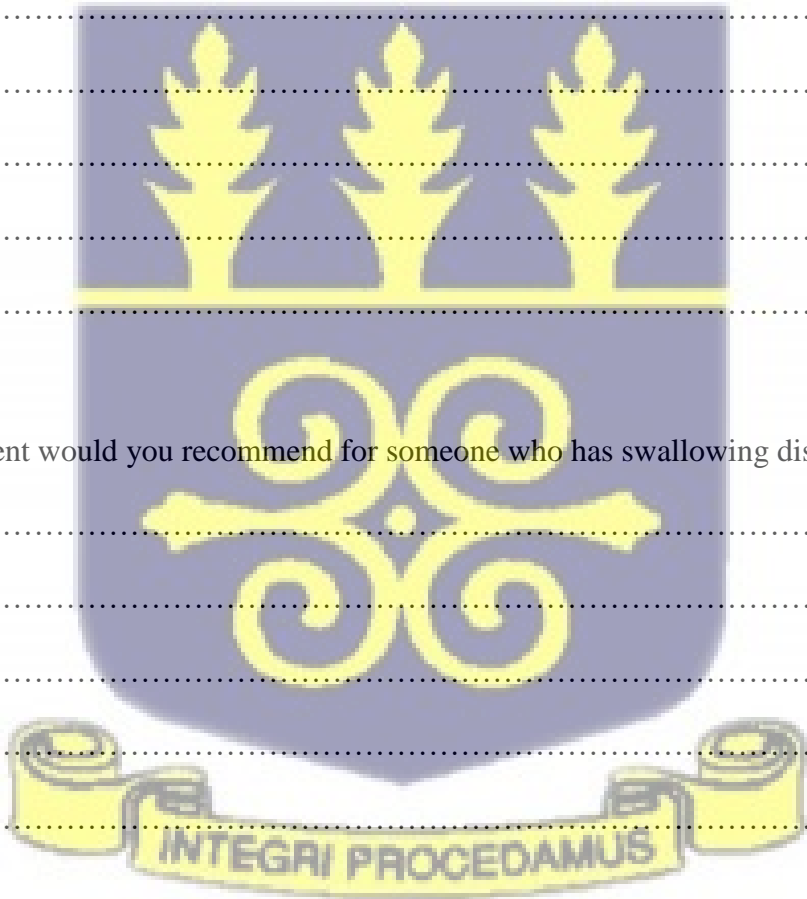
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14. What is an indication that a person may have a swallowing disorder?

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15. What treatment would you recommend for someone who has swallowing disorder?

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16. What will indicate that a person has speech and language disorder?

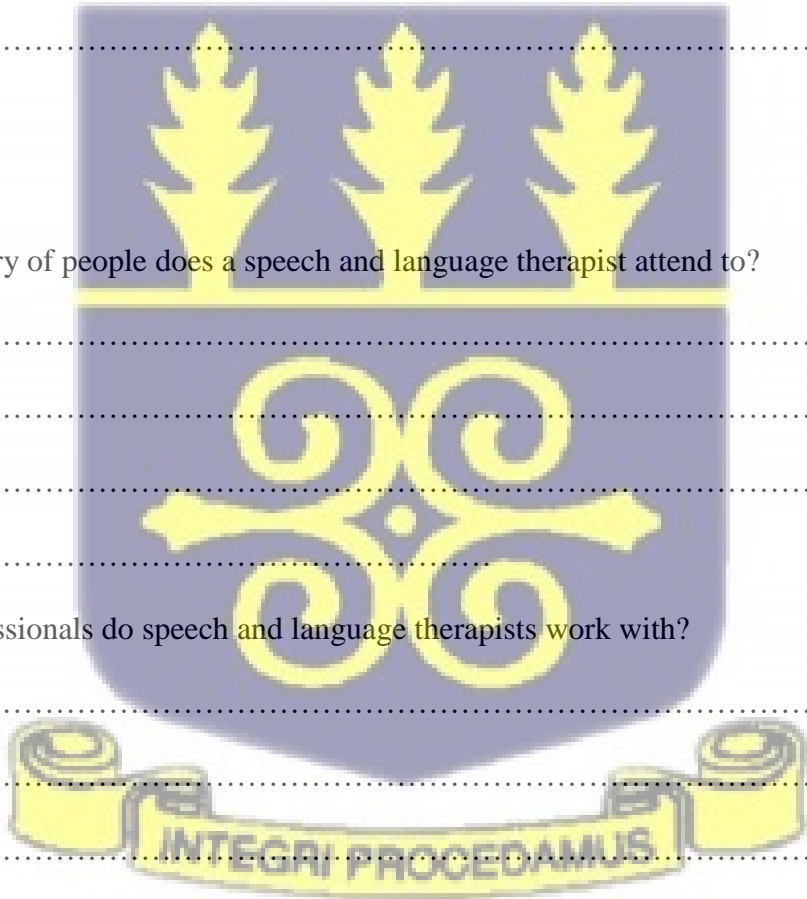
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17. What category of people does a speech and language therapist attend to?

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18. Which professionals do speech and language therapists work with?

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19. What conditions may need the services of a speech and language therapist?

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20. When do you think a person might no longer need the services of a speech and language therapist?

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Appendix 2



UNIVERSITY OF GHANA

SCHOOL OF BIOMEDICAL AND ALLIED HEALTH SCIENCES

May 16, 2020

**Ms. Boye, Belinda**  
Department of Speech and Language Therapy  
SBAHS, Korle – Bu

Dear Ms. Boye,

**ETHICS CLEARANCE**

Ethics Identification Number: SBAHS/AA/SLT/10294901/2019-2020

Following a meeting of the Ethics and Protocol Review Committee of the School of Biomedical and Allied Health Sciences held on April 9, 2020, I write on behalf of the Committee to approve your research proposal entitled:

**“Effect of training on the knowledge of trainee nurses on the role of Speech and Language Therapists”.**

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 clearance is valid for three years, with effect from the date issued.

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

Thank you.

Yours sincerely,

**Jonathan Quartey (PhD)**  
Chairman, Ethics and Protocol Review Committee

CC: Dean, SBAHS  
Head, Dept. of Speech and Language Therapy, SBAHS  
School Administrator, SBAHS

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