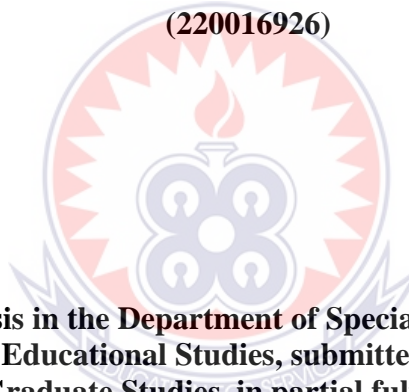**UNIVERSITY OF EDUCATION, WINNEBA**

STUDENT NURSES' VIEWS ON LEARNING GHANAIAN SIGN LANGUAGE

AT THE COLLEGE OF COMMUNITY HEALTH NURSING, WINNEBA

REXFORD OFORI SARFO

2023

UNIVERSITY OF EDUCATION, WINNEBA

STUDENT NURSES' VIEWS ON LEARNING GHANAIAN SIGN LANGUAGE AT

THE COLLEGE OF COMMUNITY HEALTH NURSING, WINNEBA

REXFORD OFORI SARFO

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A thesis in the Department of Special Education,
Faculty of Educational Studies, submitted to the school of
Graduate Studies, in partial fulfillment
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Master of Philosophy
(Special Education)
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DECLARATION

Candidate's Declaration

I, **Rexford Ofori Sarfo**, declare that this Thesis, with the exception of quotations and references contained in published works which have all been identified and duly acknowledged, is entirely my own original work, and it has not been submitted, either in part or whole, for another degree elsewhere.

SIGNATURE: ....

DATE: ....

SUPERVISOR'S DECLARATION

I, Dr. Daniel Fobi, hereby declare that the preparation and presentation of this work was supervised in accordance with the guidelines for supervision of Thesis as laid down by the University of Education, Winneba.

SIGNATURE: ....

DATE: ....

DEDICATION

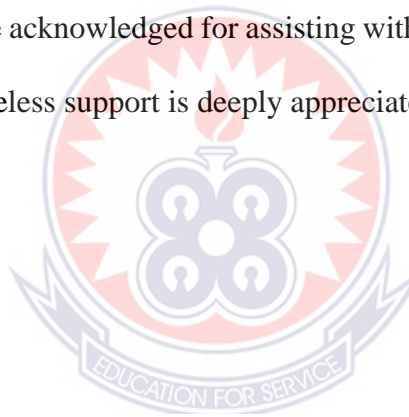I dedicate this piece of work to my Dad Mr. Hayford Sarfo and my Mom Mercy Yeboah.

Who have been my backboned throughout my educational journey.

ACKNOWLEDGEMENTS

I extend my heartfelt gratitude to my supervisors Dr. Daniel Fobi for his support and patience. Every meeting with him enhanced my understanding and professional growth in research. I am also grateful to Mr. Obed Appau and all the lecturers of the Department of Special Education. For their constructive feedback throughout the period of this work. I appreciate your constructive critics. I am also grateful to the College of Community Health Nursing School Winneba, for the opportunity and conducive environment provided to interact with their student nurses who contributed immensely to the thesis by sharing their views on learning Ghanaian sign language. My research assistants, Mr. Derry Titus and Mr. Collins Kwabena Boye are acknowledged for assisting with data collection and transcription of the interviews. Your tireless support is deeply appreciated

TABLE OF CONTENT

ABSTRACT

This study explored the views of student nurses of College of Community Health Nursing students on learning Ghanaian sign language. The study was qualitative in approach and adopted the case study design. A sample of 22 students were chosen out of an accessible population of 60 second year diploma in community health students nurses' who were currently studying sign language as a course at the time of the study. The study used interviews to illicit responses from students on their views on learning Ghanaian sign language as a course. The results revealed that student nurses' had positive perception towards sign language. It also emerged that teaching and learning resources which aid the learning of sign language were inadequate hence students found that to be contributing to their difficulty in learning the course. Limited knowledge on deaf culture was also revealed to be a hindrance to the complete acceptance of sign language by the students. The study recommend that enough time should be allocated in the school curriculum for learning sign language. Appropriate teaching and learning resources should be provided by the school to facilitate effective teaching and learning of sign language.

CHAPTER ONE

INTRODUCTION

1.0 Background to the Study

It is apparent that the success of any country in the quest to reduce poverty is contingent on the health status of its population (WHO, 2011). As one of the critical sectors in the growth and development of the Ghanaian economy, the mission of the Ministry of health, Departments and Agencies of health provision is to improve the health status of all persons through the development and implementation of proactive policies for good health and longevity.

In a diverse community where inclusivity matters, the ability to effectively communicate in healthcare settings is crucial for providing quality care to all patients, including those with hearing impairments (Adade et al., 2023). However, one significant barrier the deaf community faces in accessing healthcare services is the lack of competent communication from healthcare professionals in sign language. Student nurses' play a vital role in the healthcare system, often being at the forefront of patient care. Research has demonstrated that healthcare professionals' ability to communicate effectively with deaf patients significantly influences the quality of care provided and patient outcomes (Adade et al., 2023). Therefore, understanding student nurses' views on learning Sign Language is crucial in identifying the barriers and gaps in education that hinder effective communication with deaf patients.

In a country like Brazil, the legal recognition of Sign Language, which is the Brazilian Sign Language (LIBRAS), has been devised as a primary means of communication for the deaf community which highlights the importance of healthcare professionals possessing the

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necessary skills to communicate effectively with diverse patient populations (Machado et al., 2015). Compared with other populations in Ghana and some other countries, deaf people often have poorer access to healthcare. This is worse and most experienced by deaf people living in rural areas (World Health Organization, 2011; GNAD, 2022). A baseline study conducted by Inclusion Ghana in 2011 on access to healthcare services by persons with disabilities found that persons with disability are most often affected by unmet healthcare needs. The situation is further worse with deaf people who have unique communication needs (Inclusion Ghana, 2011). The Ghana national association of the deaf (GNAD) as the mother organisation for deaf people in Ghana have been conducting studies into the accessibility to services in Ghana for its members (Deaf people) for some time now. (GNAD 2022). The reports consistently raised issues with access to quality, safe and confidential health services for deaf people. Most health care providers in Ghana are unable to communicate with deaf clients due to language barrier (GNAD, 2022). Service providers rely on the services of sign language interpreters and family members (caregivers) to provide service to them. This bridge confidentiality as information/communication between the service provider and the deaf is being heard by a third party (sign language interpreter/caregiver). In some instances, patients are misdiagnosed due to communication challenge (GNAD, 2022; Mprah, 2020).

As a result of advocacy and heightened concerns raised, the integration of sign language education into nursing curricula has garnered increasing attention due to its significance in improving patient-provider communication and enhancing healthcare outcomes, particularly for individuals who are deaf or hard of hearing. In Ghana, the government through the ministry of health and health training institutions introduced

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Ghanaian sign language into the curriculum of health training institutions (MOH, 2016). This was to train healthcare providers to be able to communicate directly with the deaf to eliminate third party involvement and misdiagnosis as a result of communication barriers (MOH, 2016). Asumadu (2016) observed that nursing students in Ghana are actively engaged in learning sign language as part of the school curriculum. This was to provide students with the requisite knowledge, skills and understanding in communicating and responding to the needs of deaf people.

However, perception comes into play. Perceptions are known to significantly impact individuals' attitudes and behaviors towards learning sign language, making it essential to explore student nurses' perspectives on this matter within the specific context of their academic environment. Prior research indicates that student nurses' perceptions on sign language learning can be shaped by various factors, including their prior experiences with sign language, cultural background, and the perceived relevance of sign language skills in nursing practice (Alamri, 2017; Steinberg et al., 2007). For example, students who have had positive experiences with sign language or who come from cultural backgrounds that value multilingualism may be more inclined to view sign language learning positively. Conversely, those who perceive sign language as less relevant to their future nursing careers may have less motivation to engage in learning activities. Moreover, the perception of sign language as a language worthy of learning and as a crucial communication tool is likely to influence students' motivation and commitment to sign language education (Bergen et al., 2020). Understanding these perceptions can provide valuable insights into the factors that facilitate or hinder student nurses' engagement with sign language learning and inform strategies to enhance their learning experiences.

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The College of Community Health Nursing, Winneba is one of the institutions running the sign language programs since 2016. An informal conversation with some student nurses' currently undergoing training program at the College of Community Health Nursing, Winneba revealed that the program is not benefiting students to the maximum. It was revealed that students have varying views about the course and the intended aim. It is in pursuit of this that the researcher sought to investigate the views of student nurses on the learning of Ghanaian Sign Language as a course in the nursing school curriculum.

Again, learning sign language can pose significant challenges for student nurses' potentially hindering their ability to acquire proficiency in this vital communication skill. One primary challenge involving logistical barriers such as time constraints can further impede nursing students' engagement in sign language learning. Balancing academic coursework, clinical placements, and other commitments may leave students with limited time to dedicate to learning sign language (Kelly et al., 2015). The scheduling conflicts between sign language classes and other academic or clinical responsibilities may exacerbate this issue, making it challenging for students to prioritize sign language education.

In addition to time constraints, student nurses' may also face challenges related to self-efficacy and confidence in their ability to learn sign language effectively. Bandura's self-efficacy theory suggests that individuals' beliefs in their capabilities influence their motivation and persistence in learning new skills (Bandura, 1977). If student nurses perceive sign language as difficult or beyond their capabilities, they may experience feelings of apprehension or doubt, which can undermine their engagement and performance in sign language education programs (Kelly et al., 2015).

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Finally, inadequate resources and support for sign language learning may exacerbate these challenges. Steinberg et al. (2007) highlighted the importance of accessible learning materials and support services for nursing students undertaking sign language education. However, even with the advent of technology, many nursing programs lack sufficient resources, such as qualified instructors, or multimedia materials, to facilitate effective sign language learning. Without these resources, students may struggle to acquire proficiency in sign language, limiting their ability to communicate effectively with deaf or hard-of-hearing patients.

Per these, the study sought to explore the perceptions of student nurses from the College of Community Health Nursing, Winneba on learning Ghanaian sign language, investigate the challenges facing them concerning learning the Ghanaian sign language in their institution, and recommend systems that can be put in place to increase the enthusiasm amongst the students.

1.2 Statement of the problem

The College of Community Health Nursing in Winneba, Ghana, trains nurses to provide quality healthcare services to the general population. Among the essential skills needed for effective health nursing practice is the ability to communicate with diverse patient populations. In Ghana, the course Ghanaian sign language was introduced into health training institutions' curriculum in the year 2016. This meant that any potential student who wish to be a health worker would automatically learn sign language as a means of ensuring communication with clients/patients who are deaf (Adade et al., 2023). Despite the studying of Ghanaian sign language at the training level, 95% of these healthcare professionals are still unable to communicate with the deaf using sign language and as a result, the deaf clients

still face challenges in accessing healthcare services at the health facilities whenever they want to access healthcare.

Also, despite the growing recognition of sign language as a crucial communication tool in healthcare settings, there is limited empirical research specifically investigating the perceptions, benefits, challenges, and support systems related to learning sign language among nursing students at the College of Community Health Nursing in Winneba. The existing literature highlights the importance of effective communication in healthcare and the potential benefits of sign language proficiency for student nurses'. Studies have shown that sign language skills can improve patient-centered care, enhance patient satisfaction, and reduce communication barriers in clinical practice (Steinberg et al., 2007; Kelly et al., 2015). However, these studies have predominantly focused on the experiences of healthcare professionals or the general population, with limited attention paid to nursing students' perspectives on learning sign language.

One significant gap in the literature pertains to student nurses' perceptions of learning sign language. While some studies have examined attitudes towards individuals who are deaf or hard of hearing, there is a lack of research specifically investigating student nurses' attitudes and beliefs regarding the importance and feasibility of learning sign language (Kelly et al., 2015). Understanding student nurses' perceptions is crucial for designing effective educational interventions and support systems that address their needs and preferences in sign language education.

Furthermore, the literature lacks a comprehensive understanding of the challenges student nurses' encounter on learning sign language at the College of Community Health Nursing in Winneba. While some studies have identified barriers to effective communication

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with individuals who are deaf or hard of hearing in healthcare settings, there is limited research specifically focusing on the challenges faced by student nurses' specifically at the College of Community Health Nursing in Winneba. (Steinberg et al., 2007). Factors such as limited access logistical barriers such as time constraints, and issues related to self-efficacy and confidence in learning sign language effectively remain underexplored in the literature.

A similar study conducted by Adade et al. (2023) on the perception of Ghanaian healthcare students towards the learning of sign language as course revealed that Ghanaian healthcare students expressed their ill preparation when it comes to communicating with deaf clients. This prompted the researcher to initiate this study to investigate the views (lived realities) of College of Community Health student nurses at Winneba where the researcher had prior interactions with few students regarding the learning of sign language.

Even with the study conducted by Adade et al. (2023) it employed the quantitative approach and used online survey instruments which did not give in-depth individual expressions of their individual views. This study sought to employ a qualitative approach through structured interviews to investigate the views of a single school in Winneba, a town of Effutu municipality in the Central Region of Ghana.

Based on the gaps identified above in the literature, the study sought to investigate the perceptions, benefits, and challenges, to recommend support systems that will boost learning sign language among nursing students at the College of Community Health Nursing, Winneba.

1.3 Purpose of the study

The purpose of the study was to investigate student nurses' views on learning Ghanaian sign language at the College of Community Health Nursing, Winneba.

1.4 Research objectives

The following objectives guided the study

1. To find out how student nurses perceive the learning of sign language at the College of Community Health Nursing, Winneba.

2. To find out the perceived benefits of learning sign language by student nurses at the College of Community Health Nursing, Winneba.

3. To find out the challenges student nurses' encounter on learning sign language at the College of Community Health Nursing, Winneba.

4. To identify the systems in place to support sign language learning at the College of Community Health Nursing, Winneba.

1.5 Research questions

The following research questions guided the study

1. How do student nurses perceive the learning of sign language at the College of Community Health Nursing, Winneba?

2. What are the benefits of learning sign language to student nurses at the College of Community Health Nursing, Winneba?

3. What challenges do student nurses' encounter in learning sign language at the College of Community Health Nursing, Winneba?

4. What systems are in place to support sign language learning in the Nursing School?

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1.6 Significance of the study

The findings of this study would bring to light how student nurses' in the study school perceive the course sign language. It will also enable the researcher to delve into some challenges student nurses' encounter in their quest to learn sign language. The findings also made recommendations to enable the college consider in making the sign language effective to serve its purpose.

1.7 Delimitations of the study

The study was delimited to current second year diploma student nurses' who were taking the course in sign language at the College of Community Health Nursing, Winneba. This was because the students, the researcher had prior interaction with were currently second year students of the school. This was to identify their views about learning sign language. Again, the study was delimited to the College of Community Health Nursing, Winneba because, it serves as a critical hub for community healthcare education and practice in the region. By focusing on this institution, I aimed to deepen understanding on local healthcare challenges, enhance collaboration with stakeholders, and propose targeted interventions as far as the learning of Ghanaian sign language is concerned.

1.8 Limitation of the Study

The sample size used for the study did not reflect the individual views of the entire population. There might have been some different views held by other potential students who were not included hence the finding is a reflection of a small group and generalization to the entire college might not be feasible. The researcher could not get access to many students because of their practicum and preparation for the end of semester examinations. However, these challenges did not mare the findings negatively in any way

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1.9 Study Organization

The study was organized into six chapters. Chapter one consisted of the study's background, the problem statement, the purpose, objectives and research questions, significance of the study and organisation of the study. The study theoretical framework, related literature and operational definitions was reviewed in Chapter two. Chapter three discussed the methods of data collection and data analysis and presentation. These includes the design of the study, population and sampling, tools for collection of data, data collection procedures and data interpretation. Chapter 4 delved into the interpretation of the study's findings. Chapter 5 consisted of the discussion of findings.

Finally, chapter 6 summarizes, concludes, makes recommendations, and suggests further research
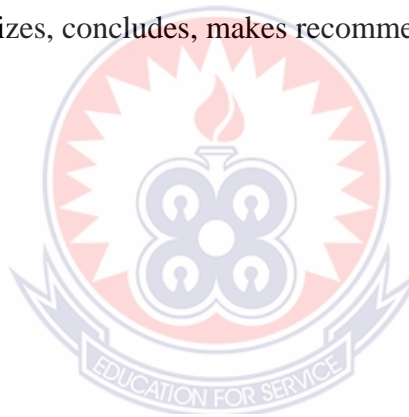
CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter reviewed related literature to Student Nurses' Views on Learning Ghanaian Sign Language at The College of Community Health Nursing, Winneba. Related literature was reviewed under the following strands. The Self – efficacy theory by Bandura (1997) and the Conceptual Review based on the following concepts; Perception of student nurses' on learning Ghanaian Sign Language, Benefits of Learning Sign Language to Nursing Students, Challenges Nursing Students Encounter on Learning Sign Language, Systems in Place to Support Sign Language Learning, Summary of Literature Review and Operational Definitions for Ghanaian Sign Language.

2.1 Theoretical framework

This study was guided by Bandura's (1997) self-efficacy theory.

The framework of the self-efficacy theory by Albert Bandura encompasses conceptualization, development, mechanisms, and applications of individuals' beliefs in their capabilities to accomplish tasks and achieve desired outcomes across diverse domains, elucidating the sources of self-efficacy, its cognitive, motivational, and affective mechanisms, and its implications for behavior, performance, and well-being. With respect to students, it deals with the firm belief that a student holds about his or her capability to organize and execute the courses of action required to produce given attainments.

The roots of self-efficacy theory can be traced back to Bandura's seminal works on social learning theory and social cognitive theory. Bandura proposed that individuals learn through observation, imitation, and modeling, emphasizing the role of cognitive processes in

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behavior acquisition and change. In the early 1970s, Bandura introduced the concept of self-efficacy as a central component of social cognitive theory, highlighting its significance in human agency and adaptation.

2.1.1 Conceptualization of Self-Efficacy

At the core of self-efficacy theory lies the concept of self-efficacy beliefs, which encompass individuals' judgments about their capabilities to perform specific tasks and achieve desired outcomes. These beliefs are domain-specific and influence individuals' choices, efforts, persistence, and resilience in the face of challenges. Bandura identified four primary sources of self-efficacy information: mastery experiences, vicarious experiences, social persuasion, and physiological and emotional states. Mastery experiences involve successful performances that enhance self-efficacy, while vicarious experiences involve observing others' successes and failures. Social persuasion refers to verbal encouragement or discouragement from others, and physiological and emotional states involve interpreting physical and emotional cues as indicators of capability.

2.1.2 Development of Self-Efficacy

Self-efficacy beliefs are not fixed traits but are subject to development and change through various experiences and interactions. Bandura proposed a cyclical process through which self-efficacy beliefs are formed, modified, and maintained. Initially, individuals rely on external sources of efficacy information, such as feedback from others or past experiences. As individuals engage in tasks and accumulate mastery experiences, their self-efficacy beliefs become increasingly based on internal sources of information, such as cognitive appraisal of one's abilities. Additionally, social modeling and social persuasion

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play crucial roles in shaping self-efficacy beliefs, particularly during early developmental stages.

2.1.3 Mechanisms of Self-Efficacy

Self-efficacy beliefs operate through cognitive, motivational, and affective mechanisms to influence behavior and performance. From a cognitive perspective, individuals with high self-efficacy tend to set challenging goals, exert effort, and persist in the face of obstacles, leading to greater task engagement and problem-solving efficacy. Motivationally, self-efficacy beliefs impact individuals' choices, aspirations, and level of commitment to pursuing goals. High self-efficacy fosters a sense of efficacy expectancy, wherein individuals believe that their efforts will lead to desired outcomes, thus enhancing motivation and performance. Affective mechanisms involve emotional experiences associated with self-efficacy beliefs, such as confidence, anxiety, and stress. High self-efficacy is associated with positive affective states, whereas low self-efficacy may lead to feelings of doubt, fear, and avoidance behavior.

2.1.4 Domain-Specificity of Self-Efficacy

Self-efficacy beliefs are context-dependent and vary across different domains of functioning, such as academic, social, occupational, and health-related domains. Individuals may exhibit high self-efficacy in certain areas while experiencing low self-efficacy in others. Bandura emphasized the importance of assessing self-efficacy beliefs within specific domains to accurately predict behavior and performance outcomes. Moreover, interventions aimed at enhancing self-efficacy typically target domain-specific beliefs through tailored strategies and experiences.

Albert Bandura's self-efficacy theory has been widely used in different fields to study and improve people's beliefs in their ability to attain desired results. In education, academics and educators have used self-efficacy concepts to develop effective instructional practices and interventions that empower students and encourage self-confidence. Zimmerman (2000), for example, emphasised the importance of self-efficacy beliefs in academic accomplishment and advocated tactics such as setting difficult goals, providing constructive feedback, and teaching self-regulation skills to help students view their own efficacy. Similarly, Tschannen-Moran and Woolfolk Hoy (2001) emphasised the importance of teacher efficacy beliefs in determining instructional practices and student results, arguing for professional development programmes that focus on increasing teachers' self-efficacy to support effective teaching tactics.

Furthermore, in healthcare settings, Bandura's self-efficacy theory has been used to create behaviour modification interventions that attempt to improve patient outcomes. Luszczynska et al. (2005) emphasized the importance of self-efficacy beliefs in health behaviour change, proposing tactics such as mastery experiences, modelling, and social persuasion to boost patients' confidence in their abilities to control their health. Bandura (2004) also explored the relevance of perceived self-efficacy in health promotion and illness prevention, emphasizing the need to adapt interventions to patients' perceived barriers and enhancing their self-efficacy beliefs. By incorporating self-efficacy concepts into healthcare interventions, doctors are able to motivate patients to take an active part in managing their health and improve treatment adherence, resulting in better health outcomes.

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2.1.5 Application of the theory to the study

The integration of self-efficacy theory by Bandura (1997) to this study on student nurses' views on learning Ghanaian sign language at the College of Community Health Nursing, Winneba" offers valuable insights into understanding how individuals' beliefs in their capabilities influence their attitudes, motivation, and learning experiences in acquiring a new skill, such as sign language proficiency.

Bandura's self-efficacy theory posits that individuals' beliefs in their ability to perform specific tasks influence their behaviors, thoughts, and emotional reactions (Bandura, 1986). In the context of nursing students learning Ghanaian sign language, self-efficacy beliefs play a crucial role in shaping their perceptions and experiences throughout the learning process.

Firstly, nursing students' self-efficacy beliefs regarding their capability to learn Ghanaian sign language will impact their initial attitudes and motivation towards the task (Bandura, 1997). Students with high self-efficacy in language learning may approach the endeavor with enthusiasm, viewing it as an exciting challenge to overcome (Bandura, 2001). Conversely, those with low self-efficacy may feel apprehensive or doubtful about their ability to acquire proficiency in sign language, potentially leading to feelings of frustration or disengagement (Bandura, 1995).

Moreover, self-efficacy beliefs influence students' perseverance and effort in the face of challenges encountered during the learning process (Bandura, 1989). According to Bandura, individuals with high self-efficacy are more likely to exert greater effort and persist in their endeavors, even when faced with obstacles or setbacks (Bandura, 1997). In the context of learning Ghanaian sign language, nursing students with strong self-efficacy beliefs may

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demonstrate resilience and determination when encountering difficulties in mastering the language, actively seeking out resources and support to enhance their skills (Bandura, 1997). Conversely, students with low self-efficacy may be more prone to giving up prematurely or avoiding challenging aspects of the learning process (Bandura, 1995).

Furthermore, self-efficacy beliefs can impact students' learning strategies and behaviors (Bandura, 1986). Bandura suggests that individuals with high self-efficacy are more likely to adopt effective learning strategies and engage in self-regulatory behaviors to facilitate their learning and skill development (Bandura, 2001). In the context of learning Ghanaian sign language, student nurses with strong self-efficacy may employ strategies such as regular practice, seeking feedback from instructors, and collaborating with peers to enhance their language proficiency (Bandura, 1997). Conversely, students with low self-efficacy may be less inclined to actively participate in learning activities or may employ less effective study methods, thereby impeding their progress in acquiring sign language skills (Bandura, 1989).

Additionally, self-efficacy beliefs can influence students' emotional responses and coping strategies when facing challenges or failures in the learning process (Bandura, 1997). Bandura suggests that individuals with high self-efficacy are more likely to experience positive emotions, such as confidence and determination, in the face of difficulties, while those with low self-efficacy may experience negative emotions, such as anxiety or self-doubt (Bandura, 1995). In the context of learning Ghanaian sign language, student nurses with strong self-efficacy may approach challenges with a positive attitude and view failures as opportunities for growth and learning (Bandura, 2001). Conversely, students with low self-efficacy may experience heightened anxiety or frustration when encountering difficulties, potentially leading to decreased motivation and persistence (Bandura, 1986).

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In summary, integrating self-efficacy theory by Bandura into the research topic of nursing students' views on learning Ghanaian sign language at the College of Community Health Nursing, Winneba, provides a theoretical framework for understanding how students' beliefs in their capabilities influence their attitudes, motivation, learning strategies, and emotional responses throughout the language acquisition process.

2.2 Perception of student nurses′

2.2.1 Sign language as a visual communication tool

Education is based on dialogue, opinion and discussion using sign language for deaf students (Mercer et al., 2019). Modern education calls for a diversification of communication methods that provide educational content intended to improve educational experiences. The nature of the subject, educational goals, learners' levels, characteristics and preferences must be followed and used to improve educational experiences (Hiver et al., 2020). Therefore, teachers should undertake several appropriate classroom roles that contribute to effective teaching methods to bring about the learners' desired learning, especially modern methods that focus on the communicative process. Effective classroom communication is required for all students, especially students learning sign language at the basic level (Bambaeeroo & Shokrpour, 2017). Accordingly, it is vital to have effective communication between teachers and their students in classrooms. This makes school class time more enjoyable and builds a strong relationship between students and teachers and vice versa. This may increase students understanding capacity in the classroom and help them feel more comfortable asking questions or asking for their teacher's help (Frey et al., 2019).

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2.2.2 Challenges of Sign Language Acquisition

Deafness may hinder oral communication. This results in deaf people's use of sign language. Sign language in education is not a 'teaching method' but is a fully natural language with grammar, vocabulary and dialects. However, there are many types of sign language, each with its own lexicon and grammar (Liddell, 2003). Other spoken languages, specifically with co-speech gestures, use some of those signs. However, sign languages have their own rules, syntax, synonyms and idioms. They evolve like other languages and are used by some deaf people in all aspects of life (Smith, 2004). One of the goals of nursing students' preparation programmes is to develop future nurses receptive sign language skills. Improved communication among nursing students is crucial for access to educational and social information (Alshutwi et al., 2020). Sign language is an important channel of communication between teachers and students as it contributes to obtaining feedback and to the linguistic and cognitive development of deaf individuals (Bergen et al., 2020). Furthermore, effective communication through more coherent sign language develops a positive relationship between teachers and students who use sign language (Hall et al., 2019; Polat, 2003). Thus, effective communication is essential to deaf children's mental health and to those around them to break the isolation barrier and expose them to active social interaction.

Previous studies have reported that teachers proficient in sign language could develop their students' comfort, learning experiences, and knowledge (Alamri, 2017; Long, Stinson et al., 1999; Nikolaraizi, 2000). Furthermore, Hunt and Marshall (2012) emphasized that preparation programmes for sign language teachers have the additional component of sign language acquisition so that teachers can proficiently communicate and sign to students. Alamri (2017) conducted a study in Saudi Arabia on University students' views and

understanding of sign language and found that, using sign language can have a positive effect on personal growth and learning, growth in print awareness related to spoken language, and dealing with others, as well as contributing to the development of language skills, communicating with others, and enhancing self- esteem and self-reliance (Herman, 2018; Kholis et al., 2020; Leeson et al., 2014). Considering those mentioned earlier, teachers must have proficient sign language skills to provide access to communication and educational information for students.

Sign languages use a visual and spatial modality, whereas spoken languages use an auditory and verbal modality. Hence, language is a brain-based way of communicating regardless of its modality. Sign languages have their own rules and grammar to ensure well-formed sentences (Liddell, 2003) that student nurses' should know and follow. In terms of the types of signs that form language, the Ghanaian sign language can be divided into three primary types of signs, similar to types of American Sign Language (ASL) investigated by other researchers (Caselli & Pyers, 2020; Ortega, 2017). The first is lexical signs which include the signed Ghanaian alphabet and numbers. Signed letters are manual representations of written letters, and signed numbers are a special subset of lexical signs.

A second type of signs is iconic lexical signs, representing shapes, objects, and directions of their meaning, in which a sign is iconic (looks like) its actual representation. For example, the sign of the word SQUARE can be made by drawing the shape of a square where the sides of the shape should be equal in length, so viewers understand the meaning. Another example is for the verb WALKS by showing the index and middle finger spread out and pointing downward, simulating legs, then moving the two fingers to simulate how people walk. Boyes-Braem (1986) argued that about a third of lexical signs are iconic, meaning that

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sign forms imitate the perceptual and sensori motor characteristics of a referent (Perniss et al., 2010). Taub (2001) conducted a study on teaching sign language to high school students and found that, there are many similarities between signs' physical forms and their referents' forms; thus, some signs can be abstract through conceptual metaphors.

The third type of signs is arbitrary lexical signs, including metaphor that does not represent signs' meaning. These signs can be described as 'non-iconic' or 'not visually motivated.' For example, the sign for the word TEACHER in the Ghanaian sign language is to fold all fingers except the index finger from both hands and place the hands in an X-shape in front of the chest horizontally; hence, the sign for TEACHER does not represent any hint as to its meaning. Other sign languages have similar types of signs, as 'lexical variants may represent physical features of a referent [perceptual signs] or an action associated with an object [action signs]' (Ortega et al., 2014, p. 1114). The present study was interested in whether there are any learnability differences among the participants regarding different types of sign language and their iconic representations.

One of the most significant factors related to successful educational experiences for sign language learners is accessibility, and proficient communication with their teachers (Andzik et al., 2018; Pennington et al., 2021). However, a number of the signs in the Ghanaian sign language do not achieve the required level of effective communication. This may be due to some teachers' lack of coordination and organization to become fluent signers (Chen et al., 2015; Lillo-Martin & Henner, 2021), or that the sign language manual does not contain enough signs to assist teachers in becoming fluent signers, which hinders the communication and learning processes of deaf students in their schools and societies. Accordingly, teachers' mastery of sign language is necessary for classroom management,

especially concerning the human relations that must be established with learners, the recipients. In the United States, for instance, many high schools offer ASL courses as a foreign language, so some university students already have some knowledge of sign language when they begin their teacher preparation programmes. However, this is not the case in Ghana. Therefore, sign language training should be an essential part of the all preparation programmes in Ghanaian schools learning sign language (Adade et al., 2022).

2.2.3 Implication on Health Nursing Education

Student nurses' preparation programmes, towards the learning and understanding of sign language has significant implications for social and communication issues that deaf learners may face during the different learning stages (Aldabas, 2015). Importantly, nursing students' preparation programmes aim to teach participants techniques to modify curricula and prepare student nurses' with teaching methods for students to meet their requirements (Alnahdi & Anastasiou, 2020). In a study by Bransford (2005) on preparation programmes for nursing students towards learning sign language found that, student nurses' preparation programmes ought to provide graduates with opportunities to master content knowledge and related practice skills related to learners' needs, pedagogies and curricula. The study recommended that nurses should be able to deal with deaf people development within the social context, creating and construing effective instructional and assessment strategies. Graduates of nursing students' preparation programmes can also work on social services, health, labor, and organization institutions that include children with special needs.

Again, some studies suggest that student nurses generally recognize the importance of sign language proficiency in healthcare settings, particularly in facilitating effective communication with deaf or hard-of-hearing patients (Cokely & Baker-Shenk, 1980;

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Steinberg et al., 2007; Kelly et al., 2015). Student nurses perceive sign language as a valuable skill that enhances patient-centered care, improves patient satisfaction, and reduces communication barriers in clinical practice (Steinberg et al., 2007; Kelly et al., 2015). Additionally, they indicate that nursing students may express positive attitudes towards learning sign language, viewing it as a means to broaden their professional competencies and increase their employability in diverse healthcare settings.

However, despite the perceived importance and positive attitudes towards learning sign language, studies have highlighted several challenges and barriers faced by student nurses' in acquiring sign language proficiency. One major challenge identified is the lack of formal sign language education or training programs within nursing curricula (Cokely & Baker-Shenk, 1980; Kelly et al., 2015). Student nurses' may express frustration or dissatisfaction with the limited opportunities to learn sign language in academic settings, which may hinder their ability to develop proficiency in this skill (Kelly et al., 2015). Additionally, the literature suggests that student nurses' may encounter logistical barriers, such as time constraints or scheduling conflicts, which make it difficult to engage in extracurricular sign language courses or workshops (Steinberg et al., 2007; Kelly et al., 2015).

Furthermore, other studies have indicated that student nurses' may experience challenges related to self-efficacy and confidence in their ability to learn sign language effectively. Bandura's self-efficacy theory suggests that individuals' beliefs in their capabilities influence their motivation, effort, and persistence in learning new skills (Bandura, 1977). In the context of learning sign language, student nurses with low self-efficacy may feel apprehensive or doubtful about their ability to acquire proficiency in this

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skill, which may impact their engagement and performance in sign language education programs (Bandura, 1977; Kelly et al., 2015).

Another notable finding from literature is the importance of providing adequate support and resources to student nurses' in their efforts to learn sign language. Health nursing education programs and institutions can play a crucial role in addressing the identified barriers and facilitating sign language learning through the integration of sign language courses into the curriculum, provision of accessible learning materials, and collaboration with sign language instructors or deaf community organizations (Steinberg et al., 2007; Kelly et al., 2015).

Previous research has investigated the issue of using and communicating through sign language from different angles; for example, the historical perspective of the educational use of sign language in teaching and learning (Stokoe, 1976), the education of ASL interpreters (Ball, 2007), ASL Teacher Preparation (Jacobowitz, 2005), differences between hearing and deaf translators (Cerney, 2004), effects of a communication method (Hsing & Lowenbraun, 1997; Wise, 2006), and characteristics and responsibilities of educational sign language interpreters (Jones et al., 1997). However, there is a gap in the body of knowledge on students sign language proficiency, which is one of the primary teaching programmes outcomes (as discussed earlier); thus, this study can be helpful to investigate what variables may be related to this issue. For example, Alofi et al., (2019) reported a lack of sign language specialists. Sign language teachers are unable to explain some of the curriculum content due to limitations in knowing or performing the correct signs. Furthermore, due to some communication problems in using sign language, some students believe that their teachers have received poor- quality education (Alofi et al., 2019).

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However, there is a potential gap concerning the specific perceptions and experiences of student nurses at the College of Community Health Nursing, Winneba, regarding learning Ghanaian sign language. While existing studies provide valuable insights into the perceptions of student nurses on learning sign language in general, there is a scarcity of research focusing specifically on the experiences of student nurses at the specified institution. Therefore, there is a need for empirical research to explore the unique perspectives, challenges, and support needs of student nurses at the College of Community Health Nursing, Winneba, in relation to learning Ghanaian sign language. By addressing this gap, the study can provide tailored recommendations and interventions to enhance sign language education and promote effective communication in healthcare settings within the local context.

In conclusion, the literature review underscores the importance of understanding student nurses' perceptions and experiences regarding learning sign language, highlighting both the perceived benefits and challenges associated with acquiring sign language proficiency. The application of Bandura's self-efficacy theory offers valuable insights into the role of self-beliefs in influencing student nurses' engagement and performance in sign language education programs. Moving forward, further research is needed to explore the unique context of nursing education at the College of Community Health Nursing, Winneba, and to identify strategies for addressing the specific needs and challenges faced by student nurses' in learning Ghanaian sign language.

2.3 Benefits of Learning Sign Language

Sign language serves as a vital mode of communication for deaf and hard-of-hearing individuals worldwide, providing access to language, social interaction, and participation in various domains of life. This review explores the myriad benefits associated with learning

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sign language, encompassing cognitive, linguistic, social, educational, and cultural dimensions.

2.3.1 Cognitive and Linguistic Benefits

Research suggests that learning sign language confers cognitive and linguistic benefits, enhancing cognitive flexibility, spatial reasoning, and visual-spatial processing skills (Emmorey et al., 2005; Johnston & Schembri, 1999). Sign languages utilize a distinct visual-gestural modality, stimulating neural pathways associated with spatial cognition and enhancing cognitive abilities (Emmorey et al., 2008). Moreover, sign language acquisition fosters bilingualism and multilingualism, facilitating linguistic diversity and promoting cognitive resilience (Newport & Meier, 1985). Studies have demonstrated that bilingual individuals, including sign language users, exhibit enhanced executive functioning, metalinguistic awareness, and problem-solving abilities compared to monolingual counterparts (Bialystok et al., 2004; Morford et al., 2011).

2.3.2 Social and Communicative Benefits

One of the primary advantages of learning sign language is its role in promoting effective communication and social inclusion for deaf and hard-of-hearing individuals (Humphries et al., 2017). Sign language facilitates expressive and receptive communication, enabling deaf individuals to engage in meaningful interactions with peers, family members, and professionals across various settings (Padden & Humphries, 2005). Moreover, sign language fosters social identity, cultural affiliation, and community cohesion within deaf communities, providing a platform for shared experiences and collective empowerment (Lane et al., 2011). Research indicates that proficient sign language users experience higher

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levels of social connectedness, self-esteem, and psychological well-being compared to those with limited language access (Grosjean, 1982; Hall et al., 2017).

In the research of Oyewole et al. (2017), the purpose of the study was to examine the need for sign language among student nurses'. The study employed a cross-sectional design and recruited 260 People With Disabilities (PWDs) consecutively from the outpatient clinic of a tertiary hospital in Nigeria. World Health Organization Disability Assessment Schedule (WHODAS) was used to assess disability among the participants. It is a 12-item version self- or interview-administered that has proved to have good psychometric properties. The Attitudes towards Disabled Persons Form A (ATDP-A) scale was used to assess the attitudes of the participants towards disability.

"Improving Communication with Deaf Patients: An Opportunity for student nurses' to Learn American Sign Language" a study by Geisz and Lackey (2016) examined the impact of an ASL course on student nurses' communication skills with deaf patients. The results showed that students who completed the course demonstrated significantly better communication skills with deaf patients compared to those who did not.

"The Effect of Learning Sign Language on the Communication Skills of student nurses" a study by Bahat and Saglam (2019) also aimed to investigate the effect of learning sign language on the communication skills of student nurses'. The results showed that students who learned sign language had significantly better communication skills with deaf patients compared to those who did not.

"Sign Language Training for student nurses': An Effective Approach to Enhancing Communication in Healthcare" a study by Doty and Garske (2019) also evaluated the

effectiveness of a sign language training programme for student nurses'. The results showed that students who completed the programme had significantly better communication skills with deaf patients compared to those who did not.

Also, in the study of Khan et al. (2016), the purpose/objective of the study was to find out the benefits of sign language of medical professionals toward persons with disabilities. Khan et al's study employed cross-sectional purposive survey. As the sample size was made up of 230 medical staff members consisting of doctors and nurses who were selected through the purposive sampling technique. The inclusion criteria were having been between 30 and 50 years, with more than 5 years' services working experience. In addition, a self-reported questionnaire was used to gather data by using Interaction with Disabled Persons (IDP) scale. The finding of Khan et al. revealed that all the participants had a mean personal score of 76.74 and standard deviation of 12.02 (n=230) on this questionnaire suggesting that respondents had a more significant needs of learning sign language towards people with disabilities.

In the research of Sctchidanand et al. (2012), the purpose of their study was to systematically review published studies examining why healthcare students and professionals require sign language towards patients with hearing impairment. The study employed independent reviewers to complete the selected articles and data abstraction by triplicate review using standardised and pilot tested forms. They resolved disagreements by discussion or with the help of an additional review when necessary. The study used a qualitative approach to identify and report common findings across the studies. The data was analysed qualitatively and reported the result in a narrative way, focusing on common findings that were identified across the study. The findings of this systematic review

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indicated that both students and professionals in various healthcare fields reviewed they are able to effectively communicate with patients especially the deaf.

2.3.3 Educational and Academic Benefits

In educational settings, learning sign language offers numerous benefits for both deaf and hearing individuals, enhancing academic achievement, literacy development, and educational attainment (Mayer, 2007; Marschark & Hauser, 2008). For deaf students, sign language serves as a primary medium of instruction, facilitating access to curriculum content, peer interactions, and teacher-student communication (Mitchell & Karchmer, 2004). Additionally, research suggests that exposure to sign language from an early age is associated with better language outcomes, cognitive development, and school readiness among deaf children (Mayberry et al., 2011). Furthermore, for hearing individuals, learning sign language promotes cultural competence, empathy, and inclusive attitudes towards deaf individuals, fostering a more inclusive and equitable learning environment (Hauser et al., 2017; Chamberlain & Mayberry, 2008).

2.3.4 Professional and Career Benefits

Proficiency in sign language can also confer professional advantages, opening up employment opportunities, enhancing communication skills, and facilitating cross-cultural competence in diverse occupational fields (Wilcox et al., 2000; Holcomb & Rader, 2016). In healthcare settings, for instance, healthcare professionals with sign language proficiency can provide more effective and culturally competent care to deaf patients, improving patient-provider communication and health outcomes (Tamaskar et al., 2000). Similarly, in education, sign language interpreters and educators play crucial roles in facilitating access to

education for deaf students and promoting inclusive learning environments (Marschark & Leigh, 2016). Moreover, in legal and governmental contexts, sign language interpreters contribute to ensuring equal access to justice, public services, and civic participation for deaf individuals (Napier & Sabatino, 2013).

2.3.5 Cultural and Societal Benefits

Beyond its practical applications, learning sign language holds profound cultural and societal significance, fostering awareness, appreciation, and preservation of deaf culture and heritage (Ladd, 2003; Lane et al., 1996). Sign languages represent rich linguistic and cultural traditions, embodying unique forms of expression, folklore, and artistic expression within deaf communities (Padden, 1988). By learning sign language, individuals gain insight into the lived experiences, perspectives, and contributions of deaf individuals to society, promoting diversity, equity, and social justice (Bauman, 2004; Moore & Levitan, 2003). Moreover, efforts to promote sign language recognition and accessibility contribute to advancing linguistic rights, disability rights, and social inclusion for deaf individuals on a global scale (Woll & Sutton-Spence, 2005; UNCRPD, 2006).

Kathleen and Fatata-Hall, (2013), evaluated student nurses' knowledge in sign language towards the deaf over specific time intervals before and after disability education, between the experimental and the control group. The study employed experimental pretest-posttest two group design to evaluate the knowledge of sign language nursing students towards the deaf over specific time intervals before and after disability education, between the experimental and the control group. Based on the findings of Kathleen and Fatata-Hall, the study supported the need for nursing educators to require didactic educational materials and clinical experiences for the deaf in the nursing curriculum. The content of these courses

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must be designed to develop the skills, knowledge, and attitudes needed for nurses in clinical care for the deaf. The relevance of sign language for student nurses towards the deaf were shown to change significantly in response to the introduction of a 4-hour educational module on the subject. The study demonstrated the benefits of having nursing faculty members measure the relevance of sign language of student nurses' towards the deaf as an outcome of nursing education. The results of the research represent a challenge to nursing faculty members to reform health nursing curricula to meet the current needs of society.

In conclusion, the comprehensive literature review on the benefits of learning sign language underscores its multifaceted advantages across cognitive, linguistic, social, educational, professional, cultural, and societal domains. Sign language acquisition not only enhances communication skills and cognitive abilities but also promotes social inclusion, cultural awareness, and linguistic diversity. Moreover, proficiency in sign language opens up employment opportunities, fosters cross-cultural competence, and contributes to advancing linguistic and disability rights. The literature highlights the transformative impact of sign language on individuals' lives and its broader significance in promoting diversity, equity, and social justice within diverse communities. However, a notable gap in the existing literature lies in the specific examination of the benefits of learning sign language within the College of Community Health Nursing, Winneba. While the literature provides comprehensive insights into the advantages of sign language acquisition, there is limited research focusing specifically on the perceptions, experiences, and outcomes of learning sign language among nursing students in the College of Community Health Nursing, Winneba. Therefore, further empirical research is needed to explore the unique benefits and challenges

associated with sign language education within the College of Community Health Nursing, Winneba.

2.4 Challenges in Learning Sign Language

2.4.1 School Infrastructure

Infrastructure is the underlying organizational structure that is necessary for a particular operation, such as a school. Infrastructure development in education aims at increasing the motivation for school attendance and improving students' academic performance. An attitude that is favorable towards the infrastructure of the school leads to school attendance motivation that in turn improves literacy rates of the locality. Researchers conducted on the role of the quality of school infrastructure have revealed that; Indoor air quality that is poor makes students and teachers sick-making them unable to perform (Environmental Protection Agency 2000, Kennedy 2001, Leach 1997). Learners and teachers in a classroom that has poor ventilation cannot function normally.

As temperature and humidity increases, greater discomfort is reported by students leading to decreased attention span which in turn brings about deterioration in their achievement and task-performance (King & Marans 2019). Findings by Lackney (2019) found out that teachers believe that thermal comfort not only affects the quality teaching but also the students' achievement.

Students' performance is further affected by the classroom lighting (Phillips, 2017). Most of the learning of sign language is dependent on what they can see, classroom lighting is a very crucial factor. Studies have revealed that lighting that is appropriate in classrooms reduces off-task behaviour, improves scores on tests and plays a role that is critical in the achievement of students.

Research has testified that excessive classroom noise has a cumulative effect on a students' academic achievement level. To student nurses' these problems are more acute and may affect their learning of Ghanaian sign language negatively (Nelson & Soli 2010). Research reveals that learning environments are negatively influenced by increased noise levels from the background, mostly from transport systems and industries. Poor acoustics are, particular, a barrier to students. McGuffey's (2012) studies indicated a direct correlation between achievement and better building quality; newer school buildings, more advanced laboratories and libraries.

Literature reviewed has majored on the performance of learners in general and little, if at all any, has touched on the effect of the quality of school infrastructure on the learning of Ghanaian sign language hence a call for this research to be done.

2.4.2 Instructional Materials

Teaching/learning resources are important to teachers for effective teaching not only for the regular learners but also for learners with SNE in explaining abstract concepts (Wangechi, 2007). Lumumba (2009), in his findings on factors contributing to job satisfaction and dissatisfaction among teachers in special schools in Rift Valley Province, Kenya, argued that teaching /learning materials and facilities were dissatisfying to teachers thus impacting negatively on the learning process. Bunyasi (2010) also reveals that there is inadequacy of resources in Ghanaian colleges for students such as assistive devices due to lack of spare parts.

Okombo (2008) in his presentation on KSL development at Nairobi University - Kenyan Sign Language, Research Project (KSLRP) - postulates that there is a wide range of materials to be developed for KSL use in schools for students. Such materials include video recordings

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of stories told in KSL and reference materials such as maps, charts, Kenyan Sign Language text books and KSL dictionaries. Okombo observes that the development of these materials will need to take a continuous process because there will be new knowledge in the present era of advanced technology and lack of resources in schools for students affects learning. A study by Imbiti, 2012 only discusses teaching learning materials as a strategy for enhancing the learning of KSL but it leaves out the impacts of such materials on the teaching of KSL hence the need for this research to be conducted.

Wilson and colleagues (2015) explored the experiences of healthcare students learning American Sign Language (ASL). The study found that students faced various challenges in learning ASL, including difficulty with ASL syntax and grammar, limited exposure to deaf individuals, and a lack of instructional resources.

Another study conducted by Witter-Merithew and Johnson (2014) examined the challenges faced by healthcare professionals in learning ASL as a second language. The study identified various challenges, including differences in communication styles, difficulty in interpreting body language and facial expressions, and cultural differences.

2.4.3 Teachers' qualification

Teaching styles and high quality of education depends on the quality of the human resource available and this can be found in teachers (UNESCO, 2004). Education must offer an instrument of change and development and not only to focus on the availability of teachers. The teacher factor is important as a basis to academic achievement (World Bank Report, 2016).

Teachers' qualification is a technique that is widely accepted (Carr-Saunders and Wilson 2014). Problems that lead to poor quality education persists because of the shortage of both

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qualified and properly trained teachers. This has impacted negatively on the academic achievement of the students (UNESCO, 1991). Earlier, teachers without proper academic qualifications and professional training failed to do justice to their subjects. High qualifications develop self confidence in the teacher who in turn serves as a source of inspiration to his/her students (Kiarie, 2016). He further suggests that a teacher must possess theoretical knowledge about human learning behaviour, demonstrate better teaching skills and facilitate students learning. A teacher must also display positive attitude that foster learning and genuine human relationships and also should have knowledge of the subject matter. It is noted that students' academic performance level is caused by teachers because it is them who most matter in the students' life in school (Ominde, 2014). If a teacher lacks in appropriate qualification and self-confidence, then he has a lower self-esteem due to lack of content mastery that leads to poor performance by students.

Teachers' academic and professional are prerequisite to the mastery of Sign language that contributes to the nature for students' performance; citing lack of efficient use of sign language in teaching methods as good setup reflection of teachers' professional qualification (Kathuri and Nyaga, 2017). Teachers must master sign language structure before she/he develops signing skills that will be used at all times for proper learning to take place in the classroom. Sign language therefore plays a pivotal role that affects all activities in the school (Oracha, 2007).

Despite the understanding that sign language development has strong positive and lasting effects on the students' academic achievement, it is surprisingly evident that several potential troublesome issues hinder the development of Ghanaian sign language in the learning environment (Moores, 2010). Brentari & Coppola (2013) maintains that if the school

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environment is unfriendly, hence de-motivating learners from attending school. Furthermore, the internal dimensions of the school as an environment are not to assume that the school is solely responsible for influencing the process of learning and language development but that it is the departure point of interaction between the teachers and students. Secondly, rather than focusing solely on the school, attention is drawn to the interplay between what takes place within the school and within the teacher education that influences how academic and social participation is facilitated.

It is at school that nursing students has to expand on their receptive and expressive sign language and eventually the written form of communication to facilitate their social relationships with others.

2.5 Systems in Place to Support Sign Language Learning at the Community Health Nursing, Winneba

A language learning system should be challenging (Malone, 2017, Czikszentmihalyi, 2008, Quinne, 2005). Clearly a system lacking in challenge will communicate a lot to students during the learning of sign language. Lacking difficulty may result in initial interest, but inevitable boredom. Alternatively, a system unreasonably difficult will quickly discourage use of the system but may unintentionally foster negative feelings of helplessness and maladaptive thoughts students. The system should continually adapt to the student's skill level, adjusting for the failures and successes of the student.

The system should have a clear goal (Malone, 2017). An unclear goal can easily confuse students or result in frustration if the student is using the system incorrectly. Whether the device is encouraging the student to finish going through a story simulation or defeat a boss, the goal must be clear. Once the goal has been achieved, that also should be clear to the

student. Feedback about the student's performance should also be provided. If the student is making a mistake, that should be conveyed. If the student is doing particularly well at a task, then positive feedback should be given.

To further increase the challenge, the systems should consider ways to present obstacles to the student. One common method is by providing multiple levels or score keeping. As a student advances past a level, the next level may be more difficult. Scores may also be provided showing how well the student is doing in a particular level. Another common tactic for challenge is having variable difficulty levels. For example, a student may need to solve a puzzle that requires specific knowledge of Ghanaian sign language. After the puzzle is completed, a user may have to perform more advanced interactions in Ghanaian sign language.

Fantasy

Fantasy (Malone, 2017) should be an element of a sign language learning system. Having emotionally appealing fantasies may be necessary for the student to have fun. Fantasy adds personality to a system and helps meet the emotional needs of the student. StarCraft and World of Warcraft are excellent examples of games that employ elements of fantasy to increase the enjoyment of the student. A sign language learning system aimed towards meeting the needs of both young children and parents should contain fantasy elements appropriate for young children that are also enjoyable for adults. Perhaps a mixture of elements for both target audiences would be ideal to satisfy the needs of these two individuals.

An appropriate solution should expose students to relevant forms of language, including sign language and written forms of language, during early developmental stages (Stokoe, 2011).

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The solution should also incorporate various techniques to promote acquisition of sign language skills in a clear and engaging manner, since the sign language-learning process is unique to each student and can be frustrating (Marsharck, 2013).

Storytelling

One component of a system designed for students learning sign language should be the element of storytelling, whether it is imposed by the teacher or created by the student. Storytelling can be fun for the student and employs both creativity and the imagination. Storytelling also promotes interpersonal bonding with the student, allowing the sharing of an experience together. Storytelling has been shown to promote mutual growth and understanding, help with learning linguistic skills (Peck, 2019). A number of child-centered studies (Peck, 2019; Egan, 2019; Justine, 2018) demonstrate the importance of storytelling and shared reading with parents. In early childhood, storytelling is well recognized as a means to support a child's development and to help a child express and assign meaning to the world. Storytelling also helps develop communication, recognition, and recall skills to enforce relationships with peers and adults (Peck, 2019). Storytelling can be an important and intimate understanding. This study proposes that storytelling may help to fill a crucial gap in interpersonal interaction between members of the target group since many deaf people are unequipped to engage in active shared reading or storytelling. Storytelling could also serve as a successful medium for creating a fun, motivational, and challenging environment for students to learn sign language.

Presentation

The system must incorporate a consistent method of how sign language will be visually taught to students (Ardito et al, 2014, Johnson, 2010). Sign language students should be able to scan the information quickly for information (Johnson, 2010). Being able to

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actually see the sign correctly is also useful to the student. There would be limitations if the student had to carefully scrutinize visual information presented, since that may result in a lack of understanding (Johnson, 2010). Presentation of material involves both effectiveness and efficiency (Ardito, et al, 2014). Effectiveness may include that the tool helps support sign language learning with the students, incorporates communication, contains some elements of personalization and is accessible to the student. Efficiency involves the structure being adequate. There has to be a way to tell what the system state is, a method for tracking progress, a visible course structure and ideally a way to adapt some features of the tool (Ardito, et al, 2014).

Adaptability

The system must be adaptable to the student. Student may be at different cognitive levels; which age alone cannot predict. Students also may have different perceptions about learning sign language. The student primarily chooses the system, not the teacher. The student may see the benefits of learning sign language, but the teacher may not clearly see those benefits. The system should be prepared to provide plenty of motivational features to get the student in the mode of wanting to learn sign language. The system should adapt to the rate that the student is learning. A student who is quick to learn and motivated will need additional challenges and tougher vocabulary. Students who are struggling may need the system to provide them with more review material and may need additional time to learn new vocabulary. The system may want to incorporate some elements of personalization in the tool (Kramer, 2010). Kramer (2010) mentions that the primary focus should be on providing value to the student, rather than deploying cool new features unwisely. A lack of personalization may result in the student finding the system to have less value or makes the student feel more likely to be disinterested in the system (Ardito et al, 2014; Kramer, 2010).

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However, personalization can also harm the student if not employed correctly (Kramer, 2010). Any element of personalization should be tested and measured to ensure that the personalization is meeting the need of the student. This is integral to understand, since students require personalization when learning sign language. This may be an important feature to utilize if the system is meant to help the students learn beginning sign language to more advanced signs.

2.6 Summary of Literature

The study under discussion focused on exploring nursing students' experiences, perceptions, challenges, and support systems related to learning sign language at the College of Community Health Nursing, Winneba. Throughout the literature review, several key themes emerged, shedding light on various aspects of this topic.

Firstly, regarding perceptions of learning sign language, the literature suggests that nursing students recognize the importance of acquiring sign language skills in healthcare settings, viewing it as a valuable asset for effective communication with deaf or hard-of-hearing patients. However, attitudes towards sign language learning vary, with some students expressing enthusiasm and interest, while others may harbor apprehensions or lack motivation towards the process.

Secondly, the perceived benefits of learning sign language by nursing students encompass both professional and personal domains. Students acknowledge that sign language proficiency enhances their cultural competence, communication skills, and overall effectiveness as future healthcare professionals. Moreover, they recognize the personal growth and empowerment that comes with acquiring this skill, including increased

confidence and a sense of fulfilment in their ability to connect with diverse patient populations.

Thirdly, nursing students encounter various challenges in the process of learning sign language, ranging from linguistic barriers to time constraints and institutional limitations. Lack of access to qualified instructors, limited resources, and cultural factors may impede students' progress and hinder their ability to develop proficiency in sign language. Additionally, navigating the complexities of sign language learning within the demanding curriculum of nursing education poses significant challenges for students.

Lastly, the study highlights the importance of support systems and resources in facilitating sign language learning among nursing students. While some institutions may have systems in place to support sign language education, there is a need for greater accessibility, effectiveness, and adequacy of these support systems. Institutional policies, support services, and accommodations play a crucial role in addressing students' needs and promoting inclusive learning environments for sign language education.

2.7 Operational Definition of Ghanaian Sign Language

Ghanaian Sign Language (GSL) refers to the visual-gestural language used by the Deaf and hard of hearing community in Ghana, employing a unique combination of handshapes, facial expressions, body language, and spatial grammar to convey meaning and facilitate communication (Korsaga, 2017). GSL is a distinct language with its own linguistic structure, vocabulary, and syntax, separate from spoken languages like English or Twi (Agyeiwaa, 2018). For nursing students, GSL encompasses the skills and knowledge required to effectively interact with Deaf patients, including: Finger spelling and manual alphabet, Basic vocabulary and common phrases, Conversational strategies and

storytelling techniques, Non-manual markers and facial expressions and Cultural awareness and sensitivity.

This includes understanding Deaf culture, community norms, and values, as well as the ability to adapt communication styles to meet individual patient needs (World Health Organization, 2018). Proficiency in GSL enables nursing students to provide culturally sensitive care, promote patient-centered communication, and address the unique healthcare needs of Deaf individuals (Barnett, 1999).

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CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter describes the overall methodological procedure used in the study. The chapter begins with a presentation of an overview of the research approach, design, population, sample and sampling technique. The chapter also outlined the methods used for data collection including data collection tools. This is then followed by an explanation of the analytical procedures used for the study. Additionally, the chapter outlines the methods used to ensure trustworthiness of the study findings. The chapter concludes with a discussion of how ethical principles were adhered to in the study.

3.1 Research Paradigm

This study was underpinned by the interpretivist paradigm. The interpretivist paradigm in research emphasizes on understanding social phenomena from the perspective of those involved, focusing on meanings, symbols, and subjective experiences. Applying it to a layperson, think of it like trying to grasp the deeper meanings and perspectives people attach to their actions and interactions in everyday life. Instead of just numbers and statistics, interpretivism values personal experiences and the context in which they occur, recognizing that reality can be subjective and diverse. It's like exploring the "why" and "how" behind human behavior rather than just the "what." I agree with the interpretivist believe which states that context is vital for knowledge and knowing, therefore, contextual factors need to be taken into consideration in any systematic pursuit of understanding Fobi (2023). I conducted the study in the natural setting of the participants and used qualitative research tools like interview guides that allowed me to collect data and interpret them from the

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perspective of the research participants. Thus, I made the effort to understand and interpret the subjective viewpoints of the participants on the research topic.

Fobi (2023), posits that the interpretivist paradigm focuses more on the interpretation of human experience, consciousness, sense-making, and worldviews based on the pursuit of comprehension. Nickerson (2024), also posits that Interpretivism is an empirical approach that believes that understanding individuals' ideas, intentions, and reasoning in a social setting is critical to deciphering the meaning of the evidence available about a phenomenon. Interpretivism emphasizes the relevance of context when investigating things, and it uses qualitative methods such as interviews and observations to provide rich, descriptive data from an emic perspective. Different people in a society experience and understand the same "objective" reality in different ways, and have individual reasons for their actions (Alharahshel & Pius, 2020; Bhattacherjee, 2012). The goal of interpretivism paradigm is to gain a comprehensive understanding of the entire study subject via the lenses of persons involved, which includes learning about their lived experiences through their own words and stories. Reflexivity is also crucial because the researcher is regarded as a part of what is being investigated and cannot be completely detached from their own subjective experiences.

In this study which seeks to investigate student nurses' views on learning Ghanaian sign language at the College of Community Health Nursing, Winneba, the interpretivism paradigm aligns well with the purpose. Just as Interpretivism recognizes there are multiple realities shaped by cultural influences, students may interpret signing education differently. Understanding how and why students view this aspect of their studies in their own words is significant to the study so through interviews, the researcher was able to develop holistic insights without predetermined frameworks.

3.2 Research Approach

The study adopts a qualitative research approach to explore student nurses' views on learning Ghanaian Sign Language at the College of Community Health Nursing, Winneba. Qualitative research is the process of gathering and analysing non-numerical data (such as text, video, or audio) in order to better comprehend concepts, opinions, or experiences (Bhandari, 2020). It can be utilised to gain detailed insights into a topic or to develop fresh research ideas.

Qualitative research emphasizes words over quantitative in data gathering, employs a flexible and emergent study design, and focuses on understanding events in their natural contexts from participants' viewpoints (Cresswell, 2013). This study aims to gather valuable insights into how students' experience and make sense of this component of their educational programme. Qualitative techniques focus on understanding the human side of an issue through open-ended questions and narrative data, which is consistent with understanding students' subjective experiences.

Also, an important qualitative characteristic is using naturalistic methods of data collection like interviews and observations to understand phenomena in their real-world settings Creswell (1998). For this research, conducting one-on-one interviews with students at their college allowed their perspectives to be explored within the authentic context shaping their experiences and viewpoints. This fits the goal of capturing an emic understanding of Ghanaian sign language education as personally perceived and interpreted.

Furthermore, Qualitative research is also inductive, meaning theories and themes emerge from the data rather than testing predetermined hypotheses (Bhandari, 2020). This organic approach leaves scope to follow unanticipated threads in students' narratives to develop a

holistic grasp of their learning realities. The flexible design accommodated new insights that provide a more textured picture of how this student group perceives their signing program.

3.3 Research Design

I employed exploratory case study design for the study. Exploratory case study design is a qualitative research method that aims to gain an in-depth understanding of a specific phenomenon or a case in a real-life context (Yin, 2018). It is particularly useful when little is known about the topic of interest, making it an appropriate choice for this study.

One key characteristics of the exploratory case study design is its flexibility in data collection methods (Creswell, 2018). Data in this sense can be collected through interviews, focus groups and observation as well. In this study, the data was collected through interviews, allowing the researcher to gather rich and nuanced insights into student nurses' views on learning Ghanaian sign language.

Another characteristic of the exploratory case study design is its emphasis on context and holistic understanding (Baxter & Jack, 2008). In this research, the College of Community Health Nursing, Winneba, served as the specific case. The context of the college, including its curriculum, teaching methods, and resources, were explored to understand how the learning of Ghanaian sign language is integrated into the nursing education program. This holistic approach allowed the researcher to capture a comprehensive picture of the factors that influence student nurses' views on learning sign language, including institutional support, instructor expertise, and student perceptions of the value of sign language in their future nursing practice.

Furthermore, exploratory case study design allows for the exploration of multiple perspectives and the potential for unexpected findings (Yin, 2018). By involving a diverse group of the student nurses', including those who are enthusiastic about learning sign language as well as those who may have reservations or challenges, a range of views and experiences were captured. This approach enabled the researcher to identify patterns, themes, and variations within the data, leading to a deeper understanding of the complexities surrounding the learning of Ghanaian sign language among nursing students.

3.4 Population

Population is the relevant group of people under investigation (Lind, Marchal & Wathen, 2005). It is the entire set of individuals and objects of interest or the measurement obtained from all individuals or objects of interest. The target population for the study was 100 students who made up of the second-year diploma in Community health student nurses' who were currently studying sign language at the College of Community Health Nursing, Winneba. The accessible population was 60 students who were readily available. This comprised 32 females and 28 males. This selection, targeting the second-year diploma students first of all, was necessary because they have had some exposure to the nursing curriculum and the learning environment at the College of Community Health Nursing, Winneba. As they are midway through their program, they have gained foundational knowledge and experiences that can influence their perspectives on learning Ghanaian sign language.

Again, since their ongoing learning of sign language provides valuable insights into their views, challenges, and attitudes towards acquiring this skill, their current involvement

in sign language classes allows for a more accurate representation of their experiences and perceptions.

3.5 Sample Size

The sample size for the study was (22). This was made up of (12) females and (10) male students. These students were selected because they have a sufficient level of exposure to the nursing curriculum and the ongoing learning of sign language as second year diploma students in Community Health. By targeting this category of students who are actively involved in sign language classes, the study captured their direct experiences, perspectives, and attitudes towards learning Ghanaian sign language.

3.6 Sampling Technique

I purposively selected the sample of 22 students for the study who had homogeneous characteristics. Purposive sampling is a non-probability sampling technique that involves selecting participants based on specific criteria relevant to the research objective (Creswell, 2018). In this case, the study purposefully focused on participants actively engaged in studying sign language as the sample, so that the researcher can gather in-depth and nuanced information regarding nursing students' views on learning Ghanaian sign language. The main goal of purposive sampling is to focus on particular characteristics of a population of interest, which enables the participants to answer the research questions (Creswell, 2018). As a non-probability sampling technique, the homogenous purposive sampling involves   judgmental, selective or subjective sampling (George, 2008). Therefore, the study relied on the researcher's judgment to select the nursing student and to collect data for the research. Usually, the sample being investigated is relatively smaller.

3.7 Research Instruments

The study tool was interview guide. This tool was employed to solicit responses from the participants (student nurses') for the study. The interview guide consisted of a number of questions each carefully crafted taking into consideration the research questions. This was chosen because interviews provided flexibility to probe individual participants differently. Interviews were employed for the study because it has the ability to yield in-depth information and give interviewees the opportunity to express themselves from their own experience and perspectives without any influences from the researcher (Mantey, 2014). Creswell (2014) and Miles et al., (2014) added that interview allows for elaboration of feelings, thoughts and experiences pertaining to the research questions. The instrument was categorized into sections. Section A (first section of the guide) solicited biographical data of participants. Section B consisted of items regarding students' perception on learning sign language. Section C consisted items on benefits of learning sign language. Section D contained items to probe participants on their views on challenges nursing students face in learning sign language. The final section contained items on the systems in place to support sign language learning at the College of Community Health Nursing, Winneba. The instruments were carefully crafted using the research questions.

3.8 Trustworthiness

The present study ensured trustworthiness based on four criteria outlined by Lincoln and Guba (1986), and Guba and Lincoln (1994). They are, credibility, confirmability, dependability and transferability.

Credibility

I ensured credibility of this study by giving the data captured after every interview session to the respondent to go through to ensure what is said is well captured to represent the respondent intentions and views. The audio recordings were also played for participants to listen for them to make input if they wish to change anything. I also engaged the respondents over a long time to ensure quality and reflective data were collected and used. Data was collected from different respondents to justify the true views of nursing trainees on learning Ghanaian Sign Language at the College of Community Health Nursing, Winneba. According to (Fobi, 2023), credibility involves the use of various data collection tools to ensure data accuracy. It also involves making sure that data captured really reflects the actual views of respondents.

Confirmability

To ensure confirmability, I used direct quotations from participants. Direct quotations were used as much as possible to reflect the views of the respondents. This reflects the real views of the participants as they gave during the data collection process. The data collection materials were kept accurately for confirmation and reconfirmation. Confirmability relates to the level of confidence that the research findings are based on participant's narratives and words rather than potential researcher biases (Fobi, 2023). .

Dependability

A detailed methodological process was followed to carry out this study. Polit and Beck (2006) define dependability as one of the criteria that is used to establish trustworthiness by having peer researchers perform an audit of the study. In order to achieve

dependability, I submitted the collected data to peer researchers to examine and then compare the results to validate its correctness. My supervisor who is also an expert in the area of qualitative research also reviewed the findings to ensure that the data collected was dependable. Fobi, (2023) is of the view that to ensure dependability of study findings, the findings must be reviewed over by professionals in academia with the required experience in the subject matter. Fobi further averts that the methodology used to conduct the study must be justifiably followed through and its effectiveness ascertained.

Transferability

To ensure transferability, participants' demographics were well established. Participant's settings were well described with their characteristics. The study findings were also discussed and comparisons with previous studies in different context established. Thus, readers who find their own contexts to be similar to the contexts of the study can apply the findings to respective situations. Also, I provided an extensive description of the interviewees which included their level, age range and course of study to ensure that any situation with similar characteristics can easily apply these study findings.

3.8 Procedure for Data Collection

I sought for permission from the administration of the College of Community Health Nursing School, Winneba with an official introductory letter from the Department of Special Education, University of Education, Winneba (See Appendix B). The content of the introductory letter was to introduce me as a researcher, the topic I am conducting the study on and to authenticate that I was a student in the Department of Special Education.

When I arrived at the college, the administrator engaged me in interactions to know the criteria and the sample size and sampling technique. Having responded to the questions, I was introduced to the Academic Officer of the college for further engagement and assistance. I again introduced myself and my purpose for the visit. I was introduced to the level 200 students of the college who were studying the course. I explained the purpose of the study to the students and how I was going to select the participants. The category of participants that will be needed for the study and how I was going to interview them.

After, we scheduled days for the interview section to be curried on. This was to indicate their voluntary participation in the study. It also contained a portion for them to indicate their acceptance to have the session audio recorded for transcription purpose. Participants were made to select a venue in the school they felt comfortable to have the session. They selected one of the lecture theatres and the session was held there.

During the session, there was no staff or management around or involved. It was only the students in the same level and class. The respondents were put in turns and were asked to attend to the interview section on "one on one" basis. The others were allowed to attend to their daily activities until it was their turn. This was done to make participants feel comfortable and safe to respond as freely as possible. I pose questions for respondents to answer. I probed as much as possible. This same procedure was carried out among the subsequent respondents. In total, the data collection exercise took place within 10 days. Each interview with participants lasted between 30 to 45minutes.

After each session, time was dedicated to replay the audio recorded sessions for my respondents to confirm and authenticate the information given. A summary note was also read to them to confirm if their views were carefully captured. Most of the groups indicated

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the summarized notes taken was enough and there was no need playing the audio due to time. There was no issue with data capturing as all participants indicated their views were captured as they intended.

At the end of the third week, Students went on clinical practice break. That brought to a close of the data collection. I returned to the academic officer on the last day of my visit to thank him and management. He also led me to the principal and then to the administrator where I had my exit from.

3.10 Data Analysis

Thematic analysis framework was adopted to analyze data in this study. I transcribed the interviews into correct grammar and complete English. Since I used short hand to record the interview process. I listened to the voice recordings again and crosschecked with what I had written to ensure all relevant data were captured. I read through all the transcripts that were generated in order to familiarize myself with the data. At the coding stage, a colored highlighter was used to identify issues that appeared repeatedly in the data. Based on the codes that were identified, I developed themes based on the four research questions. I analyzed the data inductively. That is, I allowed the data to determine the themes. Some aspects of the data which did not speak in line with any of the themes were discarded. The themes were analyzed and presented under each research question supported by direct quotations from respondents. According to Braun and Clarke (2013), thematic analysis is a method for identifying, analyzing, and reporting themes in a qualitative data. Braun and Clarke added that thematic analysis purely analyses qualitative data in detail. They established that thematic analyses should be described in six phases; transcribing data,

generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report (Braun & Clarke, 2013).

3.11 Ethical Considerations

I explained the purpose and nature of the research and the extent of their involvement as well as their right to withdraw at any time and all participants gave their consent to participate in the study. I informed respondents that their responses were going to be used purely for the intended study. Respondents' identities were concealed. No respondent was required to give the real identity details. Those who gave their real identities were concealed during the transcription and coding process. Data was presented using respondent one, two, three and so on. Participants were not coerced in any form. They chose the venue conducive and save from any harm to them to have the interactions. Research ethics is "the standard of the researcher's behavior in relation to the rights of those who become the subject of a research project, or who are affected by it" (Saunders et al., 2012, p. 680). Bless and Higson-Smith (2000) considers the ethical rights of a participant to be the right to privacy and voluntary participation, anonymity, and confidentiality. They note that research often requires participants to reveal personal information that may be a secret to their friends and associates. Many people are however, prepared to divulge information of a very private nature on condition that their identities are concealed. Therefore, anonymity was ensured where all completed questionnaires were coded and names of respondents were omitted in the final report.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.0 Introduction

This chapter focuses on the presentation and analysis of research findings. The chapter presents findings of the study in the form of results obtained from the respondents. This is done in relation to the various research questions. The first portion of this chapter presented data on the demographics of respondents of the College of Community Health Nursing, Winneba which is located at Central Region of Ghana. This consist of second year Diploma in public health nursing students.

4.1 Demographic Distribution of Nursing Students

The demographic data of the students such as sex, age, marital status and religion were analyzed. These data were used to enable the researcher know the type of respondents involved in the study.

Table 1: Demographic Data of Students

Age group	Number
19-24	7
25-29	9
30-35	4
36-40	2
Sex	
Male	10
Female	12
Marital status	
Married	6
Single	16
Year Level	
Level 200	22
Religion	
Christian	15
Muslims	4

Others	3

Source: Field Data (2023)

From table (1) it is noticed that 7 of the students were between the ages of 19-24 years old; 9 were aged between 25-29 years, then 4 were also within the age range of 30-35 years and finally 2 were also 36 years and above. It can be deduced from the results that, all things being equal, all the students are relatively young and energetic enough to effectively impact knowledge and provide credible information for the study.

Further, table 1 indicates that, 10 students were male students while 12 were female students. This indicates that there were more female participants than male students. This was due to the fact that female students' population in the various classes for the research outnumbered the male students.

The marital status of students was also analyzed. Out of the 22 participants who took part in the study, only 6 were married. The remaining 16 were single.

Finally, from the above, all the students who were selected for the study were in second year because that was the period in which students read sign language in the College.

4.2.0 Research Question one: What are the perceptions of student nurses' on learning sign language at the College of Community Health Nursing, Winneba?

This research question sought to find out the perception of student nurses' on teaching and learning of sign language at the College of Community Health Nursing School, Winneba. Under this research question, four themes were generated from the responses. These were Sign language is a normal language worthy of learning, Sign Language as a Crucial

Communication Tool, Cultural Competence and Sensitivity, and Demystifying Misconceptions.

4.2.1 Sign language is a normal language worthy of learning

Responses revealed that student nurses' had positive feeling about learning of Ghanaian sign language. They indicated that sign language is just an aspect and also a recognized language just like any other language. There are no negative feelings about it. Learning sign language will not affect them negatively in any form. They rather have the prospect of benefitting if they learn sign language. 17 of the respondents expressed gladness being introduced to sign language though they indicated it is complex and challenging to learn. They were still glad to be learning it. The following are some of the responses.

Student (17) noted:

Sign language is just like any other language that we learn. Learning it will not affect me in any way. I am glad to be learning it (Respondents 17).

Another student revealed:

I do not feel learning sign language will affect me negatively or will lead to me becoming deaf. it is a language worthy of learning. Just as learning Fante will not affect me negatively (respondent 21)

People have misconception about sign language but if they get to know it is just a normal language like any other language, they would love it. I am already in love with it and I will learn it with all seriousness (Respondent 12)

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4.2.2   Sign Language as a Crucial Communication Tool

Some of the responses received focused on student nurses' recognition of sign language as a crucial tool for facilitating communication with deaf patients. The responses emphasize the importance of overcoming communication barriers in healthcare settings to ensure all patients receive quality care. Student nurses perceive sign language not only as a means of communication but also as a fundamental aspect of delivering patient-centered care. The response was as follows:

A student revealed

Learning sign language is essential because it enables us to effectively communicate with deaf patients, ensuring they receive the same level of care as other patients. It's not just about learning a language; it's about inclusivity and providing equitable healthcare services". (Participant 5)

sign

4.2.3   Cultural Competence and Sensitivity

One of the participants highlighted nursing students' awareness of the cultural aspects inherent in sign language learning. The response indicated a shift in perspective towards embracing diversity and fostering cultural competence. Nursing students recognize that learning sign language goes beyond mere communication skills; it entails understanding and appreciating the cultural nuances and identities of the deaf community. The response was as follows:

Student revealed that,

"Learning sign language has broadened my understanding of diverse cultures and perspectives. It's not just about communication; it's about respecting and valuing the identities of deaf individuals." (Participant 7)

4.2.2 Demystifying misconceptions

The responses from the study shows that student nurses were glad and their misconceived mindset of deaf people and deaf culture was enlightened. Prior to learning sign language, they heard stories that deafness was caused by punishments from gods to people for their misconducts and sins. Having being introduced to sign language and history of deaf people, they have cleared those misconceptions and are poised to be ambassadors of deaf people. They were ready to accept deaf people and once they are posted the knowledge will help them educate other people wherever they are posted.

A student commented:

All the stories I heard about deaf people which were bad, I now realized they were just misconceptions which are not true. So learning sign language is an opportunity

for me to acquire skills and to educate other people about deaf people and their

*language. (R*espondents 9).

(another student said)

I don't feel learning sign language will make me deaf or make my children deaf. The

language is lovely; I now understand deaf people because I can communicate with

them. (Respondent 10)

4.3.0 Research Question two: What are the perceived benefits of learning sign language to student nurses at the College of Community Health Nursing School, Winneba?

This research question analyses the perceived benefits that students envisage in learning sign language. From the responses, it emerged that students had the view that, they stand to benefit if they learn and are able to communicate in sign language. Three themes were inductively realized under this research question. They were; effective direct communication with the deaf, other personal benefits and improvement in professional development.

4.3.1 Effective and Direct Communication with the Deaf

Under this theme, respondents indicated that they perceive learning sign language would enable them to communicate effectively with deaf people. They will be able to communicate directly with patients who are deaf directly without the involvement of a sign language interpreter. This responds were made by all the respondents (22) who participated in the study. College of Community Health Nursing School graduates are usually posted to areas where most deaf people do not have access to qualified sign language interpreters to

facilitate communication. Deaf people in such areas do rely on relatives to meet their communication needs. So the respondents indicated they would be able to provide quality, friendly and confidential client service to the patients who are deaf and may call on to access the services.

> *Learning sign language will go a long way to help me to communicate directly with deaf clients at my facility when they come to seek healthcare services. I would not need a relative or a caregiver to facilitate communication.* (Respondents 18).

Respondent (6) also indicated:

> *Understanding sign language helps to engage in effective communication with deaf people. For example, if I am posted to the hospital and I have a deaf patient, I will not struggle to engage with the patient because of language barrier.*

> *I feel learning sign language will enable me sustain the confidentiality which is a core component of the health delivery. I will be able to engage freely and effectively with the deaf patients in order to understand them very well and hence give a proper diagnosis and treatment (respondent 3 and similar was echoed by respondent 12, 17 and 22).*

4.3.2.0 Other Personal benefits of Learning Sign Language

Participants indicated they stand to benefit from other sectors if they learn sign language. They indicated there are other personal benefits of learning sign language. This theme had sub-themes emerging from the responses. These benefits of learning sign language include enhanced patients-centered care, improved job prospects and personal and professional development

Sign language Enhances Patients-Centered Care

Sign language can offer more patient-centered care to the deaf patients, helping them feel understood, respected and valued. All the respondents (22) indicated learning sign language will enhance the provision of patient-centered care. According to the respondents, being able to communicate well with people of diverse background helps to understand them in several angles which can help in producing an enhanced patient-centered care for deaf clients. Below were some responses of students.

> *Sign language will help me to value the need to appreciate human diversity. In case I have no knowledge and understanding in sign language, I cannot have any form of interactions with the deaf when they assess the center. (Respondents 15)*

> *Sign language will benefit me to develop good relations with patients' mostly deaf patients who will visit the hospital with different reasons. (Respondents 13)*

Another respondent indicated;

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Aside the direct communication with the deaf clients, I will be able to empathy to serve them well. (Respondent 2)

Enhancing patient-centered care stands as one of the personal benefits that student nurses' will develop when they learn sign language. The responses above again show that, skills in sign language will help to improve the relationship between nurses and deaf patients and a strong sense of respect, value and understanding will be established. Again, the personal development of the nursing student will be achieved as he or she will learn to appreciate diversities in people and develop skills in treating people as such.

4.3.2.1 Improve Job Prospects

Students believed that, student nurses' who have sign language skills can be more competitive in the job market and have an advantage over those who do not have sign language skills. (13) of the respondents indicated that they stand to gain employment and part time works if they are well equipped with the skills in sign language. However, the remaining respondents said they feel learning sign language is good but did not provide further details as to what they stand to gain. The data revealed that nursing students who have additional skills like sign language besides knowledge in the nursing programme stands a chance of gaining employment in the job market than that of those without other skills. The following are some comments made by students (respondents).

Respondent 7 said:

Sign language will help me meet the current trends in job market. The world of work is fast changing and one does not need only a single skill to work. Knowing sign

language will help me fit into any health institution because I have different skills aside my knowledge in nursing.

Respondent 16 also added:

Having two or more skills makes you a valuable asset. With knowledge in sign language, I stand a chance of being hired over others without the skill.

I can also become a part time sign language interpreter in other institutions that requires the services of sign language interpreters. (Respondent 20)

Several of these responses made by respondents in the study revealed nursing students perceived benefits of learning sign language including increased chances in the job market. As the world is changing, a lot of things will also change with time. Students have realized that having knowledge in a single field is not enough than having skills in two or more areas. This is why sign language helps nursing students to develop extra skills in their quest to compete in the job market. This makes their services more needful in any institution because they have sign language skills to communicate with deaf people in order to practice inclusion. Again, knowledge in sign language will help improve job competition of nursing students because they can fit well in any institution and their chances of securing employment stands very brighter.

4.3.2.2 Personal and Professional Development

Participants' responses revealed that knowledge in sign language will give them additional benefits of boosting their professional development and self-confidence. student nurses' revealed the following comments as follows.

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Participant (4) revealed:

> *Knowing sign language will help me personally, it will build my self-confidence as a nursing personnel and also make me very professional as a nurse because I will be able to interact and communicate with anyone who visits the hospital for assistance.*

Respondent 1 also commented:

> *Sign language will build my professional ethics and make me all round in the field of work.*
>
> *In the community with understanding of sign language I can easily interact with deaf people to know their needs and how best to assist them*. (respondent 1)

The above responses show that student nurses' skills development in sign language makes them acquire personal and professional skills and will go a long way by making them all round professionals in healthcare delivery. This will make them execute their primary duties effectively. Professionally, student nurses' knowledge in sign language will help them to easily interact and have fruitful communications between the deaf when they visit health centers for assistance.

4.3.0 Research Question three. What challenges do student nurses' encounter on learning sign language at the College of Community Health Nursing, Winneba?

This research question analyses the challenges that student nurses' encounter in learning sign language at the College of Community Health Nursing School, Winneba. These challenges affect their successful sign language learning. Three themes were developed after going

through the data recorded. These included; Time constraints, Limited resources and limited knowledge of Deaf culture.

4.3.1 Time Constraints

Student nurses are often busy with other course work and clinical placements leaving little time for learning sign language. Responses by Students shows that the time allocated for sign language class was limited and also conflicts with other activities like clinical works which makes it difficult to cover within a semester. 19 of the respondents indicated the time allocated to learning the language was inadequate. The duration assigned for the course was very short and did not benefit students learning of sign language. The course is allocated 2 credit hours per week for only 1 semester. This according to the respondents indicates woefully inadequate for them to learn and be fluent in the language. Since it is a new area, it should have been frequent on their time table where they will have enough engagements with their tutor to enable them master it. The remaining 3 respondents however indicated they felt even though the time allocated was inadequate, it is the only time that the school could allocate considering the system the school run.

Participant 4 revealed:

> *The time period for learning the sign language is very short. We learn it once in the week and that does not help much because most of the sign language skills are grossed over because of time.*

Respondent 6 said;

> *In fact, the time for learning the sign language is very short, it does not help because the sign language tutor has to rush with the signing concepts so that we can complete*

the course. Again, most of the basic concepts that are required of learning sign language are not treated because of time.

Even though I think the time allocated for learning the sign language is inadequate, I feel that is the general time as allocated to every other course. The school cannot do otherwise with the time. (Respondent 3)

The time is general across the country. This school alone cannot unilaterally change the time to suit students. So we have to manage it and when we go out, we look for other places to learn if we want improve on our sign language skills. (Respondent 18)

Learning sign language needs adequate time to understand key concepts. According to revelations made by the students above, student nurses are highly motivated to learn sign language because of the number of benefits it offers them but at the college of community health nursing school in Winneba, sign language is offered to students as a single semester programme. This is a short period and students lament because they are unable to learn the course to their maximum understanding. With a clear look on the worries shared by the students, one can conclude that, sign language skills is not well mastered in the school due to time constraints.

Again, students further added that the time the course starts does not help them to learn the course as it collides with their clinical practice which does not make them fully participate during the period for learning sign language.

4.3.2 Limited Sign Language Resources

At the College of Community Nursing School in Winneba, resources for learning sign language are limited. Student nurses' lacks access to high-quality sign language materials or technology to aid their learning. They relied solely on what the tutor presents in during lessons. Resources such as sign language books, videos, applications and practical materials were in existent. Participants commented;

Respondent 7 revealed;

> *Our tutor does not come to class with any resources. For instance, no teaching and learning resource are used in teaching us. He comes to class with a book that has the signs in it so he uses that to guide us. Even with that, it is only a single book which he uses. Aside it there is no material again.*

Respondent 14 said;

> *There is no new technology in learning the sign language, just the normal or the traditional way of signing. The school do not provide any resources that will benefit the learning of sign language.*

Respondent 12 also said;

> *There are no videos on sign language for us to watch. We have not been introduced to any application that will help us learn and practice the sign language well. We also do not have practical sessions where we could have been introduced to real communication with deaf people.*

Student nurses' further revealed limited technology in the school as far as teaching and learning of Ghanaian sign language is concern which makes it difficult for them to effectively learn the language. This served as a greater challenge to them because, in learning sign language, students need to make use of resources that will enable them to learn the language with ease. Again, new technologies of teaching sign language have to be developed and sign language instructors need to make use of such technology during the teaching of sign language.

Some resources that are used in facilitating sign language to students are pictures, offline applications, videos, photo books and electronic devices, (projectors, televisions, iPad and laptop computers). Resources not limited to the above mentioned are mostly made available to students as far as teaching and learning of sign language is concern. Information gathered from student nurses shows that these resources are not available to them in their quest for learning sign language skills at the College of Community Health Nursing School, Winneba.

4.3.2.2 Limited Orientation on Deaf Culture

In addition to learning sign language, student nurses' must also be familiar with deaf culture and the unique needs of the deaf people. This results as a challenge for student nurses' who have not had much exposure to the deaf community. This was evident in the responses of 18 of the respondents' interactions. The other four respondents however did not say anything about this as an issue.

It is only the sign language that our teachers come to class to teach. They do not

teach us anything like deaf culture or some of the things you need to understand about

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the deaf people. For example, their way of life, some of their behaviours and attitude towards certain things. (Respondent 4)

Respondent 15 revealed;

Right from day one, we started learning the letters of the alphabets and numbers using sign language. I do not know anything like the attitude of the deaf, or the deaf community. It was sign language we started with and then ended with at the same time.

To be proficient in sign language goes beyond signing of concepts. One needs to understand deaf culture in order to build up much effort in learning the language. Student nurses did not benefit from learning about knowing about deaf culture during the period of learning sign language. This has militated against their capabilities of sign language skills because students are basically introduced to only the learning of sign language in the school without knowing the behaviours of deaf people, the attitude of deaf people and even the deaf community. This implies that, those who have ill perceptions about deaf people will still hold on to them and in the long run can affect their communication skills. According to the responses made by student nurses, should not only be introduced to sign language, and the ability to sign basic concepts, but they should also understand the deaf culture. This will help them understand some behaviours, actions and inactions of deaf people and the reason behind that.

4.4.0 Research Question four: What systems are in place to support sign language learning at the College of Community Health Nursing School?

The final research question talks about systems put in place to support the learning of sign language at the college. Respondents agreed that the school have provided systems to support the learning of sign language. Their responses generated two themes. They included access to sign language classes and peer support.

4.4.1 Access to Sign Language

One of the systems put in place at College of Community Health Nursing School in Winneba to support the learning of sign language was access to sign language as a course. Sign language is organized for student nurses' as a course to support learning aimed at preparing them to bridge the communication barrier with deaf people they are likely to encounter when they go to the field of work (health centers). All the respondents (22) indicated they have access to sign language classes with a tutor being provided by the institution. This class is slated once every week and lasted for two hours. Some of the students commented as;

Respondent 20 said;

The system I know the school have put in place to support sign language learning was creating access to sign language class. This makes nursing students have easy access to learn sign language in the school.

Another respondent said;

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There has been easy access to learn sign language in the school due to the commitment of the sign language facilitator, previously it was quite difficult to have access to sign language in the school. (Respondent 16).

The institution has provided us a qualified tutor who teaches us sign language. We do not have to bother how and where to get classes. All we have to do is to avail ourselves. (Respondents 1, 2, 3, 8, 10, 11)

According to the students, access to sign language classes and commitment made by sign language tutors serves as systems that the school has put in place to support the teaching and learning of sign language. This creates the opportunity for student nurses to have easy access to sign language class. Further, from the comments, it is clear that systems in place to support sign language in the school is limited. These systems although support students learning to some extents, it does not make students more active in sign language classes to enhance effective learning because they are deemed inadequate.

4.4.2 Informal engagement with sign language users

Another respondent emphasized on the importance of community engagement and practical application in supporting sign language learning. The response indicated that students are encouraged to interact with sign language users outside the classroom setting. By immersing themselves in real-world situations, students deepen their understanding of deaf culture and communication norms, enhancing their proficiency and confidence in using sign language.

"As part of our sign language studies, our resource persons encouraged us to engage with sign language users outside the classroom setting and the deaf

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*community to apply our knowledge and also gain . This practical experience not only reinforces our learning but also fosters cultural competence and empathy towards deaf individuals." (**Participant 6**)*

4.4.3 In Person Practice and Peer Support

Another system put in place to support the learning of sign language was in-person practice and peer support. 12 of the students revealed that as part of the strategies put in place to support teaching and learning of sign language in the school, students are grouped in a way that those who show much effort and mastery are mixed with weaker students to support them after lessons. Students are also encouraged to learn more on their own by consulting other people who are sign language users, resources outside the school and also from their colleagues. This was done after the normal class work has ended. This was supported by the following comments from participants.

Respondent 17 indicated;

We have a sign language group that I am part of it, we learn sign language after the normal class has ended. Our sign language interpreters are part of it. This has helped me develop more skills in signing.

Respondent 4 revealed;

> "*At first I did not know but later, I saw most of my mates joining the group practice so I also joined. Here enough time is allocated to help those who have poor skills in learning the sign language. It is very interesting*".

> "*We do all our personal learning and practice at the group level. This supplements the classes provided by the institution. However, it is done by ourselves and there might be some of the things we sign wrongly but won't know*" *(Respondent 1)*

4.4.4 Faculty and Institutional Support

Again, another respondent's view highlights the role of faculty and institutional support in facilitating sign language learning. The response indicate that faculty members are actively involved in students' learning processes, offering assistance and creating opportunities for skill development. Additionally, the institution organizes workshops, seminars, and mentorship programs to enrich students' learning experiences and foster a supportive learning environment. Faculty and institutional support are essential components of the overall system designed to facilitate sign language learning for student nurses'. This response was as follows:

*"The faculty members at our institution are supportive of our efforts to learn sign language, providing guidance, encouragement, and additional resources when needed. The institution also offers workshops, seminars, and mentorship programs to further support our learning journey." (Participant 10)*4.5 Discussion of Findings

The discussion of findings on views of student nurses on learning sign language focuses on the analysis made from the various research questions which encompasses the themes generated, key findings of the study, literature supports and application of research theory.

Discussion of findings

Research Question one: What is the perception of student nurses on learning sign language at the College of Community Health Nursing School, Winneba?

The findings of the study on exploring the perceptions of student nurses on learning sign language at the College of Community Health Nursing, Winneba, provide valuable insights into the attitudes and beliefs surrounding sign language education. Several key themes emerged from the analysis, shedding light on the multifaceted nature of nursing students' perceptions. These themes include Sign Language is a Normal Language Worthy of Learning, Demystifying Misconceptions, Perceptions of Sign Language as a Crucial Communication Tool, Perceptions of Cultural Competence and Sensitivity, and Perceptions of Personal and Professional Growth.

The theme of *Sign Language is a Normal Language Worthy of Learning* underscores nursing students' recognition of sign language as a legitimate and essential mode of communication. Participants expressed positive attitudes towards sign language education,

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viewing it as equivalent to learning any other language. This perception aligns with Bandura's Social Learning Theory, which emphasizes the importance of observation, imitation, and reinforcement in shaping individuals' behaviors and attitudes (Bandura, 1977). By acknowledging sign language as a valuable linguistic skill, student nurses' demonstrate a willingness to engage in the learning process and challenge societal misconceptions surrounding deafness and sign language. This theme highlights the role of intrinsic motivation and perceived utility in driving students' engagement with sign language education, as they recognize the potential benefits of acquiring sign language proficiency in their professional practice (Higgins et al., 2008).

Also, the theme of *Demystifying Misconceptions* reflects nursing students' efforts to challenge and dispel myths and stereotypes surrounding sign language and deaf culture. Participants expressed a desire to overcome preconceived notions and misinformation regarding deafness, such as the belief that learning sign language may lead to negative consequences. This theme resonates with Bandura's concept of self-efficacy, which refers to individuals' belief in their capability to successfully execute tasks and achieve desired outcomes (Bandura, 1994). By confronting misconceptions and embracing sign language learning, nursing students demonstrate a sense of self-efficacy in their ability to acquire new skills and navigate intercultural communication barriers effectively. This finding underscores the importance of promoting accurate information and dispelling myths to foster a supportive learning environment for sign language education (Wilson et al., 2019).

Again, the theme of *Sign Language as a Crucial Communication Tool* highlights nursing students' recognition of sign language as an essential tool for facilitating effective communication with deaf individuals. Participants acknowledged the importance of sign

language proficiency in promoting inclusive healthcare practices and ensuring equitable access to healthcare services for deaf patients. This theme aligns with Bandura's Social Cognitive Theory, which emphasizes the role of observational learning and social modeling in shaping individuals' behaviors and attitudes (Bandura, 1989). By observing the benefits of inclusive communication practices, student nurses aspire to emulate these behaviors in their professional practice, thus contributing to the promotion of health equity and social inclusion (Manchaiah et al., 2018). This finding underscores the transformative potential of sign language education in fostering cultural competence and sensitivity among nursing students, enabling them to provide patient-centered care to diverse patient populations.

Finally, the theme of *Cultural Competence and Sensitivity* underscores student nurses' recognition of the importance of cultural competence and sensitivity in providing holistic care to deaf patients. Participants expressed a desire to enhance their understanding of deaf culture and the unique needs of the deaf community, recognizing the importance of cultural humility and respect in promoting effective communication and patient-centered care. This theme resonates with Bandura's concept of self-efficacy, as student nurses' demonstrate a willingness to engage in continuous learning and self-reflection to enhance their cultural competence and sensitivity (Bandura, 1997). By actively seeking to broaden their cultural knowledge and skills, student nurses' aspire to become culturally competent healthcare professionals capable of delivering equitable and inclusive care to diverse patient populations (Manchaiah et al., 2018). This finding highlights the importance of incorporating cultural competency training into sign language education curricula to prepare student nurses' for culturally responsive practice in healthcare settings.

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Research Question two: What are the benefits of learning sign language to student nurses at the College of Community Health Nursing, Winneba?

The analysis of the findings delves into the perceived benefits of learning sign language by student nurses at the College of Community Health Nursing, Winneba. Through thematic analysis, several significant themes emerged, shedding light on the multifaceted advantages perceived by student nurses'. These themes include Effective and Direct Communication with the Deaf, Personal Benefits of Learning Sign Language, Enhanced Patient-Centered Care, Improved Job Prospects, and Personal and Professional Development.

First of all, the first theme on *Effective and Direct Communication with the Deaf* dealt with the recognition among student nurses of the importance of sign language proficiency in facilitating direct communication with deaf individuals. This aligns with Bandura's Social Learning Theory, which emphasizes the role of observation and modeling in shaping individuals' behaviors (Bandura, 1977). By acquiring sign language skills, student nurses enhance their ability to communicate effectively and empathetically with deaf patients, thus promoting inclusivity and improving patient-provider interactions (Wilson et al., 2019). Moreover, by circumventing the need for intermediary interpreters, student nurses' can ensure confidentiality and provide more personalized care to deaf patients, thereby fostering trust and rapport in healthcare settings.

Also, the second theme *Personal Benefits of Learning Sign Language* highlights the broader advantages perceived by student nurses beyond direct communication with the deaf. Participants expressed a belief that sign language proficiency enhances their interpersonal skills, empathy, and cultural competence. This resonates with Bandura's concept of self-efficacy, as student nurses' perceive sign language learning as a means to enhance their self-

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confidence and adaptability in diverse healthcare environments (Bandura, 1994). Moreover, by gaining insights into deaf culture and linguistic diversity, student nurses develop a deeper understanding of human diversity and social inclusion, which are essential attributes for competent healthcare professionals (Manchaiah et al., 2018).

Again, the theme of *Enhanced Patient-Centered Care* underscores the pivotal role of sign language proficiency in promoting patient-centered care and improving health outcomes for deaf patients. Student nurses' recognize that sign language proficiency enables them to better understand the needs and preferences of deaf patients, thereby facilitating more personalized and culturally sensitive care (Higgins et al., 2008). By fostering effective communication and mutual understanding, sign language proficiency empowers student nurses to deliver holistic care that respects the dignity and autonomy of deaf patients, thus contributing to the promotion of health equity and social justice in healthcare delivery.

Furthermore, the theme of *Improved Job Prospects* reflects student nurses' perceptions of sign language proficiency as a valuable asset that enhances their competitiveness in the job market. Participants believe that sign language skills confer a competitive advantage in healthcare employment opportunities, as they enable student nurses' to meet the evolving demands of diverse patient populations (Manchaiah et al., 2018). This aligns with Bandura's Social Cognitive Theory, which posits that individuals' beliefs in their capabilities influence their career aspirations and goal-setting behaviors (Bandura, 1986). By recognizing the marketability of sign language proficiency, student nurses demonstrate a strategic mindset in investing in skill development to enhance their employability and career advancement prospects.

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Finally, the theme of *Personal and Professional Development* underscores the transformative impact of sign language education on student nurses' personal and professional growth. Participants perceive sign language proficiency as a catalyst for self-improvement, self-confidence, and career fulfillment (Bandura, 1997). By acquiring sign language skills, student nurses expand their professional competencies, broaden their career opportunities, and cultivate a sense of fulfillment and purpose in their roles as healthcare professionals (Manchaiah et al., 2018). Moreover, by embracing lifelong learning and skill development, student nurses demonstrate a commitment to continuous improvement and excellence in their practice, thus contributing to the advancement of healthcare quality and patient outcomes.

Research question three: What are the challenges student nurses' encounter on learning sign language at the college of community health nursing, Winneba?

The results again posit that despite the many benefits and prospects of the introduction of the learning of Ghanaian sign language into the nursing and midwifery training curriculum, learners have expressed some challenges they encounter with regard to the totality of the teaching and learning. Their mastery of the course leaves much to be desired. the study reported that, student nurses' face series of challenges at the College of Community Health Nursing, Winneba in learning sign language which included time constraints, complex language, limited resources and deaf culture. Just as in the case of any new language poses challenges to its learners, sign language posed a complex challenge to the learners. They found it to be very complex and needs a lot of dedication, enough time and contacts with experts and the deaf community in order to learn. The respondents raised concerns of inadequate time allocated to learning the language. In their view and which is

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supported by the researcher, a complex language of this nature demands that enough time be allocated to its learning and mastery. The course being taught once in the entire training period and within a period of 4 months is not enough to have any meaningful mastery. Coupled with the fact that learners do not have access to deaf people who they could practice with in order to improve their skills. This could be a contributor to why most deaf people still face challenges in communicating with the deaf many years after the course introduction. In the findings of Adade et al. (2023) reported similar findings where student nurses' reported ill prepared hence they proposed that government should consider engaging the services of a sign language interpreters at the health facilities instead of training health professionals which does not yield the expected results. The findings also attributed the difficulty in learning and mastering of the course to the nature of its syntax, grammar, exposure to deaf individuals, communication styles and cultural differences which were also found by Wilson et al (2015) in their study. The study further confirms the results of Witter-Merithew and Johnson (2014) which identified various challenges, including differences in communication styles, difficulty in interpreting body language and facial expressions, and cultural differences. This means that student nurses' go through a lot of challenges during the learning of sign language which has negatively affected their signing skills. At the College of Community Health Nursing, Winneba, majority of the students have inadequate skills in sign language as a result of these challenges that student nurses' face in their journey to learn sign language.

Limited available teaching and learning materials was found to be posing a challenge to nursing students in their quest to learning sign language. GSL-specific textbooks, videos, and online resources were unavailable in the school. These are facilitators of effective

learning and teaching but they were not available. With the gradual drifting away from the teacher centered form of teaching towards student centered approach, it is appropriate that materials which students need to learn should be made available. These materials would have made mastery of content easy and swift. This shortage hampers students' ability to receive proper instruction and guidance in learning GSL. For example, at the College of Community Health Nursing, Winneba, only one sign language tutor is available to handle students. To further compound the situation, the tutor is on part time basis so immediately he ends his lesson, he leaves. He is not always available to support students as and when they need the service of the tutor. This puts a lot of burden on the tutor and reduces the contact hours that is necessary to improve on the learning of sign language. Access to native signers of GSL for immersive learning experiences are limited (Adamo-Villani, 2011). Exposure to native signers is crucial for developing fluency and understanding the nuances of the language. Without sufficient opportunities to interact with native signers, student nurses' may find it challenging to enhance their GSL skills. it is therefore appropriate the enough tutors be engaged on full time base so that they can support each other and be available to provide additional support to the students in times of their after school learnings and practices.

Research Question four: What systems are in place to support sign language learning at the college?

Research question four investigates the systems put in place to support the learning of sign language by student nurses' at the College of Community Health Nursing, Winneba. Thematic analysis of the responses revealed two key themes: Access to Sign Language and In-Person Practice and Peer Support. These themes shed light on the institutional efforts and

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student-led initiatives aimed at facilitating sign language learning among student nurses' as well as the challenges and opportunities inherent in these support systems.

The findings under the theme of *Access to Sign Language* underscores the importance of institutional support in providing student nurses with opportunities to learn sign language. Participants highlighted the significance of structured sign language classes, which are integrated into the curriculum and facilitated by qualified tutors provided by the institution. This aligns with Bandura's Social Cognitive Theory, which emphasizes the role of environmental factors, such as educational opportunities and support systems, in shaping individuals' learning experiences and outcomes (Bandura, 1986). By ensuring regular access to sign language classes, the institution enables student nurses to acquire essential communication skills and cultural competence necessary for effective patient care (Higgins et al., 2008).

Moreover, the provision of sign language classes fosters a supportive learning environment where student nurses' can engage actively in the learning process and receive personalized feedback from instructors. This promotes self-efficacy and motivation among students, as they perceive themselves as capable of mastering sign language skills and overcoming challenges encountered in the learning process (Bandura, 1997). Additionally, by offering sign language classes as part of the health nursing education curriculum, the institution demonstrates its commitment to promoting diversity, inclusion, and equitable access to healthcare for deaf individuals (Wilson et al., 2019).

Again, the findings under the theme of *In-Person Practice and Peer Support*" highlights the complementary role of student-led initiatives in supporting sign language learning outside formal classroom settings. Participants described the formation of sign

language practice groups, where students collaborate to reinforce their learning and provide peer support to one another. This aligns with Bandura's concept of social learning, which posits that individuals acquire knowledge and skills through observation, imitation, and interaction with others (Bandura, 1977). By engaging in collaborative learning activities, student nurses not only deepen their understanding of sign language but also develop interpersonal skills, teamwork, and leadership abilities essential for professional practice (Manchaiah et al., 2018).

Moreover, the establishment of peer support networks enhances students' sense of belonging and community within the health nursing program, fostering a supportive learning environment conducive to academic success and personal growth (Manchaiah et al., 2018). Through peer-led practice sessions and mutual encouragement, student nurses' build confidence in their sign language abilities and develop resilience in overcoming challenges encountered in the learning process (Bandura, 1994). Moreover, by sharing resources, experiences, and strategies for effective sign language learning, students contribute to the collective advancement of sign language proficiency within the nursing community, thus promoting a culture of continuous improvement and excellence in healthcare practice.

Furthermore, the study's findings under the theme *Technological Support for Sign Language Learning* highlight the integration of technology as a vital tool in enhancing the effectiveness of sign language education. Participants emphasized the importance of utilizing innovative resources such as sign language applications, videos, and online platforms to supplement traditional classroom instruction. This aligns with contemporary educational trends, which emphasize the integration of technology to enhance learning outcomes and cater to diverse learning styles (Ally, 2004). By leveraging technology, nursing students can

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access interactive learning materials, practice resources, and real-time feedback, thereby enhancing their engagement, motivation, and retention of sign language skills (Liu et al., 2019).

The theme of *Community Engagement and Practical Application* underscores the significance of fostering community partnerships and real-world immersion experiences to complement classroom learning. Participants emphasize the value of engaging with the deaf community, participating in practical applications, and receiving hands-on experience in clinical settings. This aligns with Bandura's Social Learning Theory, which posits that individuals learn through observation, imitation, and interaction with others (Bandura, 1977). By engaging directly with deaf individuals and applying sign language skills in authentic contexts, can reinforce their learning, develop cultural competence, and gain practical insights into effective communication with deaf patients (Humphries et al., 2017).

Finally, *Faculty and Institutional Support* also highlight the crucial role played by faculty members and institutional policies in supporting sign language education. Participants commend the provision of qualified sign language tutors, dedicated class time for sign language instruction, and institutional commitment to promoting diversity and inclusion. This aligns with research emphasizing the importance of faculty support, mentorship, and institutional resources in facilitating student success and promoting inclusive learning environments (Gibbs et al., 2017). By prioritizing sign language education within the curriculum and providing ongoing support and guidance, faculty members empower nursing students to develop essential communication skills, cultural competence, and professional attributes necessary for effective patient care.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter presents the summary, conclusions and recommendations made on the findings from the study conducted to explore student nurses' Views on the Understanding of Learning Ghanaian Sign Language at the College of Community Health Nursing School, Winneba.

5.1 Summary of findings

The study found that student nurses' have perceived sign language to be interesting and learning it is very important just as in learning any other language. Student nurses' misconceptions about deaf people have been cleared by their introduction to the course in sign language. It also emerged strongly that there is limited time allocated for student nurses' at the college of community health nursing school which makeS it difficult for student nurses' to understand sign language.

In terms of benefits of learning sign language, the study found that learning Ghanaian Sign language improves communication competence of student nurses' as they will be able to have adequate interactions and a fruitful communication with the deaf or hard of hearing. Again, the study found that, increasing understanding of deaf culture was one of the benefits student nurses derive from learning Ghanaian sign language at the college of community health nursing, Winneba. The development of Ghanaian Sign Language (GSL) has numerous career opportunities for student nurses' in Ghana. student nurses with sign language proficiency can communicate more effectively with deaf patients, increasing the quality of care and promoting patient safety.

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Furthermore, time constraints were identified as one of the challenges student nurses' face during the learning of sign language at the College of Community Health Nursing, Winneba. This included rigorous and demanding curriculum that requires students to allocate a significant amount of time to studying core subjects, clinical rotations and other mandatory activities, access to sign language courses or resources specifically tailored for student nurses' to learning sign language. Again, limited availability of comprehensive learning material in terms of GSL-specific textbooks, videos, and online resources, scarcity of qualified GSL instructors were revealed which affected student nurses' in learning Ghanaian sign language. student nurses had limited exposure to the deaf community and its culture, which impede their understanding of the unique linguistic and cultural aspects of GSL.

Finally, the study reported that the systems put in place to support the learning of sign language at the College of Community Health Nursing, Winneba was access to sign language (teaching of sign language) and access to social support as in joining groups that further aid them in learning the sign language.
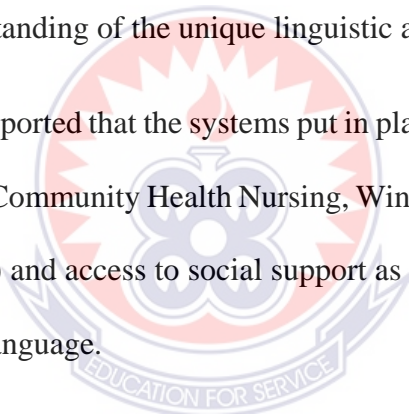
5.2 Conclusion

The exploration of student nurses' perceptions regarding sign language learning at the College of Community Health Nursing, Winneba, revealed a positive attitude towards the importance of acquiring sign language skills. Participants viewed sign language as a normal and worthy language, essential for effective communication with deaf individuals. Moreover, they expressed a commitment to demystifying misconceptions surrounding sign language, indicating a readiness to embrace and advocate for its use. These findings underscore the significance of fostering a supportive and inclusive learning environment that promotes cultural sensitivity and recognizes sign language as a crucial communication tool in healthcare settings.

Also, the study uncovered a multitude of perceived benefits associated with learning sign language among student nurses at the College of Community Health Nursing, Winneba. Participants acknowledged the potential for enhanced direct communication with deaf individuals, improved patient-centered care, and expanded job prospects. Furthermore, they recognized sign language acquisition as a catalyst for personal and professional growth, fostering self-confidence, empathy, and cultural competence. These findings highlight the transformative impact of sign language education on nursing practice, emphasizing its role in promoting inclusivity, diversity, and patient satisfaction within healthcare settings.

Furthermore, despite the perceived benefits, student nurses' at the College of Community Health Nursing, Winneba, encountered several challenges in their sign language learning journey. Time constraints emerged as a significant barrier, with limited class hours and conflicting schedules impeding students' ability to fully engage with the curriculum. Additionally, participants highlighted the lack of resources, including technological support and orientation on deaf culture, as further obstacles to effective learning. These challenges underscore the need for comprehensive strategies to address systemic barriers and enhance the accessibility and quality of sign language education for nursing students.

Finally, the study identified various support systems implemented to facilitate sign language learning among student nurses at the College of Community Health Nursing, Winneba. Technological support, including the integration of online resources and interactive learning platforms, emerged as a key strategy to enhance the effectiveness of sign language education. Moreover, community engagement and practical application were recognized as valuable complements to classroom instruction, providing students with real-world immersion experiences and opportunities for skill development. Faculty and institutional support were also instrumental in fostering a supportive learning environment, providing qualified tutors, dedicated class time, and institutional backing for sign language education. These findings underscore the importance of collaborative efforts between stakeholders to promote inclusive education and empower student nurses to become effective communicators and advocates for deaf individuals in healthcare settings.

5.3 Recommendations

Based on the findings of the study, the study recommended that:

1. The college of community health nursing, Winneba should sustain the enthusiasm that students have about learning sign language and deaf culture by organizing workshops and seminars where resource persons from institutions successful in educating students on deaf education can meet and educate more about sign language and deaf culture.

2. Student nurses should be encouraged to embark on attachments in deaf schools to enable them achieve the perceived benefits on learning sign language to reality. By immersing themselves in environments where sign language is the primary mode of communication, students have the opportunity to apply their theoretical knowledge in real-life situations and interact directly with deaf individuals. This hands-on experience not only reinforces their understanding of sign language but also allows them to witness the practical benefits of effective communication with deaf or hard-of-hearing individuals.

3. Address time constraints and limited orientation on deaf culture by reevaluating the structure of sign language classes and incorporating more practical, hands-on experiences. Extend the duration and frequency of sign language classes to allow for more in-depth learning and practice. Also, provide opportunities for students to engage with the deaf community, participate in real-world scenarios, and develop a deeper understanding of deaf culture and communication norms.

4. Stakeholders such as the school administration, government, and Non-Governmental Organizations (NGO's), should prioritize investment in technological infrastructure to support sign language learning. This may involve providing access to online learning platforms, video conferencing tools, and educational resources tailored to

sign language instruction. By leveraging technology, stakeholders can enhance accessibility, flexibility, and quality of sign language education for nursing students.

5.4Suggestions for Future Research

The study adopted the qualitative approach to explore student nurses' views on learning Ghanaian Sign Language at the College of Community Health Nursing, Winneba. Future studies can employ a quantitative approach to develop statistical understandings of student nurses' views on sign language learning across different institutions to get an extended view across the country.

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Appendix

INTERVIEW GUIDE

Section A

Demographic profile

Kindly confirm your gender

Male [ ]   Female [ ]

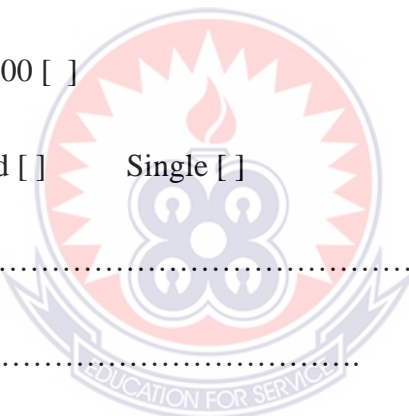Age: 18-22 [   ]   23-27 [   ]   28-32 [   ]   33-37 [   ]   Above

37 [   ]

Level: 100 [ ]   200 [ ]   300 [ ]

Marital Status: Married [ ]   Single [ ]

Specific Department: ………………………………………

Programme of Study: …………………………………

Section B

Perceptions of Student Nurses' on Learning Sign Language

a. What is your opinion about learning sign language?

b. How do you perceive the learning sign language as a Student Nurse?

c. Briefly describe the process used in learning sign language?

d. What teaching approach do teachers use in teaching you sign language?

e. How do teachers approach make you understand the learning of sign language?

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    f.   What learning format do you use in learning sign language and how effective has it been to you as a student?

    g.   How would you describe your overall learning of sign language?

Benefits of Learning Sign Language to Student Nurses'

    a.   How has the learning of sign language been of importance to you as a Student Nurse?

    b.   How has the learning of sign language improved your study of other courses as a Student Nurse?

    c.   How has the learning of sign language boosted your communication with the deaf?

    d.   Briefly describe the importance you have acquired as a result of learning of sign language in your programme of study?

    e.   Briefly describe the overall benefits of learning sign language?

Challenges Student Nurses' Encounter on Learning Sign Language

    a.   What challenges do you face in learning sign language?

    b.   What personal challenges do you face in learning sign language?

    c.   Briefly describe some of the academic challenges of learning sign language? In the classroom and outside classroom.

    d.   As a student, how do you view the feedback from your instructor? Is it promptly? Constructive? Please give some examples

    e.   What form of assistance do you think should be done before the learning sign language?

    f.   How do sign language facilitators cater for your needs when teaching you sign language in the classroom?

Systems in Place to Support Sign Language Learning

a. Briefly describe the systems put in place at the school to support your learning of sign language?

b. How do these systems support your learning of sign language? In classroom and outside classroom systems.

c. How do sign language facilitators adapt to these systems in the school to support the learning of sign language?

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