

https://dspace.org/

Lifting the lid on potential bias: Audiologists and Speech Therapists and Audiologists and South African Sign Language as a tool of service delivery in the Deaf Community and SASL users in South Africa - An explanatory study

Matjeke, Tsakane

2025

University of the Witwatersrand, Johannesburg

https://hdl.handle.net/10539/50050

Matjeke, Tsakane. (2025). Lifting the lid on potential bias: Audiologists and Speech Therapists and Audiologists and South African Sign Language as a tool of service delivery in the Deaf Community and SASL users in South Africa - An explanatory study [Master's dissertation, University of the Witwatersrand, Johannesburg]. WIReDSpace. https://hdl.handle.net/10539/50050

Downloaded from a DSpace repository. https://dspace.org/

Lifting the lid on potential bias: Audiologists and Speech Therapists and Audiologists and South African Sign Language as a tool of service delivery in the Deaf Community and SASL users in South Africa - An explanatory study

NAME: TSAKANE MATJEKE

A dissertation submitted in fulfilment of the requirements for the degree of Master of Arts in Audiology in the Faculty of Humanities, University of the Witwatersrand, Johannesburg

Date

March 2025

ABSTRACT

Background: Despite training in Deaf culture and South African Sign Language (SASL), many speech therapists and audiologists (STAs and AUDs) do not actively use sign language or integrate Deaf cultural perspectives into their practice. This reflects a bias toward the medical model of deafness, which prioritizes hearing and speech interventions over sign language.

Many STAs and AUDs lack fluency and confidence in SASL, reinforcing the idea that spoken language is superior. This can marginalize Deaf patients, limiting their access to people-centred care. The continued exclusion of sign language highlights the need for a culturally inclusive approach that fully respects Deaf individuals' linguistic and cultural identity.

Aims: Firstly, this study aimed to do the following: to explore STAs and AUDs' knowledge and perceptions regarding Deaf culture and SASL, secondly, to understand the motivations of STAs and AUDs for using or not using SASL when providing services to Deaf individuals or SASL users. Thirdly, to evaluate the confidence levels of STAs and AUDs in delivering services using SASL. Lastly, to explore the perspectives of STAs and AUDs on the tensions between professionals in their fields and the Deaf community.

Methodology: This two-phased explanatory mixed-methods study in Phase One, an online survey was completed by 24 AUDs and STAs. Phase Two involved semi-structured interviews with 12 AUDs and STAs. Participants were purposively recruited through professional platforms, including the South African Association of Audiologists (SAAA), National Student Speech-Language-Hearing Association (NABSLHA), and South African Speech-Language and Hearing Association (SASLHA) as well as Facebook. The inclusion criteria included Qualified AUDs and STAs working in public hospitals, schools, academia, or private practices, STAs and AUDs who have studied at South African universities where SASL was offered at an undergraduate level. Lastly, the participants had to be registered with the HPCSA. The exclusion criteria involved those who were still studying.

Findings: The study found a significant gap between theoretical SASL training and practical competence among speech therapy and audiology professionals. While SASL was included in academic programmes, many felt unprepared to use it confidently in clinical settings. Limited practical exposure led to low proficiency, making communication with Deaf patients challenging and potentially affecting patient care.

Participants highlighted the need for continuous, hands-on SASL training, including immersion in Deaf communities, real-world interactions, and working with interpreters. Many professionals felt their academic training did not align with clinical realities, emphasizing the need for structured, experiential learning throughout their education.

The findings suggest that academic programmes should integrate more practical SASL exposure to enhance fluency and cultural understanding, ultimately improving people-centred care for Deaf individuals.

Discussion: The discussion highlighted a significant gap between theoretical SASL training and the practical skills required for effective communication with Deaf patients in clinical settings. Many professionals reported feeling inadequately prepared to engage confidently with Deaf individuals despite having undergone formal SASL training. This disconnect underscored the need for a more immersive and practice-oriented approach to SASL education.

To address these concerns, several recommendations were put forward. Firstly, integrating more robust SASL training into university curricula was emphasized as a critical step. This would involve moving beyond theoretical instruction to incorporate practical experiences such as structured interactions with Deaf individuals. Additionally, fostering stronger connections between universities and Deaf communities was proposed as a means to create authentic learning environments. These partnerships could facilitate mentorship programmes, community-based learning initiatives, and cultural competency training, all of which would help bridge the gap between academic learning and real-world application. Interprofessional collaboration was also identified as a key factor in improving communication access and service delivery. Encouraging cross-disciplinary teamwork among healthcare providers, interpreters, and Deaf professionals

could enhance people-centred care and ensure that Deaf individuals receive equitable healthcare services.

Recommendations: This study offers several recommendations to improve communication between AUDs, STAs, and Deaf patients. First, training programs should encourage direct engagement with Deaf patients, reducing reliance on interpreters, and fostering confidence in SASL. Second, professionals should be encouraged to communicate directly in SASL whenever possible, with the development of collaborative models involving STAs, AUDs and interpreters. Future research should include Deaf individuals' perspectives to assess communication strategies and the effectiveness of SASL training. Additionally, cultural competence training should be prioritized, promoting a people-centered approach and reflecting on professional biases. Finally, stronger collaborations between AUDs, STAs, and the Deaf community are essential to improve cultural and linguistic understanding, with partnerships between Deaf organizations to establish best practices for healthcare communication.

Conclusions: This study underscores the critical need for South African STAs and AUDs to enhance their proficiency in SASL and deepen their cultural competence regarding the Deaf community. The findings reveal persistent barriers to communication and healthcare access, stemming from an overreliance on interpreters, systemic discrimination, and a prevailing medicalized view of deafness. Despite existing training programmes, many professionals continue to prioritize spoken language interventions over linguistic and cultural inclusivity, exacerbating the disconnect between healthcare providers and Deaf patients.

Addressing these challenges requires a fundamental shift in professional attitudes, training curricula, and healthcare policies. Encouraging direct engagement with Deaf patients, promoting continuous SASL learning, and reducing dependence on interpreters are essential steps toward fostering equitable healthcare access. Moreover, strengthening cultural competence through ongoing reflection and collaboration with the Deaf community will ensure that STAs and AUDs provide people-centred care that respects the linguistic rights of Deaf individuals.

DECLARATION

I, Tsakane Matjeke, hereby declare that the research topic titled:

"Lifting the Lid on Potential Biases: Audiologists and Speech Therapists, and Audiologists and South African Sign Language as a Tool of Service Delivery in the Deaf Community and SASL Users in South Africa - An Explanatory Study"

is my own original work. This research has not been submitted for any degree or to any other institution. I take full responsibility for the content of this study and the conclusions presented therein.



Tsakane Matjeke

31st day of March 2025

ACKNOWLEDGEMENTS

First and foremost, I want to give all honour and glory to God for granting me the strength, wisdom, and perseverance to complete this research. Without His guidance and blessings, this journey would not have been possible.

I would like to extend my heartfelt gratitude to my supervisor, Prof Nomfundo Nzuza-Moroe for her invaluable guidance, encouragement, and support throughout the course of this study. Your expertise and dedication have been instrumental in shaping this research.

To the participants who generously gave their time and shared their experiences, your contributions have been at the heart of this study. Without your input, this research would not have been possible.

I am also profoundly grateful to my peers who provided constructive feedback and motivation during challenging moments. Your insights and camaraderie made this journey all the more fulfilling.

To my family and friends, thank you for your unwavering support, encouragement, and patience throughout this process. Your belief in me has been a source of strength and inspiration.

Thank you all for contributing to the completion of this study.

Table of Contents

ABSTRACT II
DECLARATION 5
ACKNOWLEDGEMENTS 6
LIST OF FIGURES 13
LIST OF APPENDICES 18
LIST OF ABBREVIATIONS 19
CHAPTER ONE: BACKGROUND 20
1.1 INTRODUCTION 20
1.2 PROBLEM STATEMENT 23
1.2 THE RESEARCH QUESTION, AIMS AND OBJECTIVES OF THE STUDY 25
Aim *25*
Research Questions *25*
Research Objectives *25*
1.4 SIGNIFICANCE OF THE STUDY 25
1.5 DEFINITION OF KEY TERMS USED IN THIS STUDY 26
1.5 OUTLINE OF THE DISSERTATION 29
CHAPTER TWO: LITERATURE REVIEW 31
2.1 UNDERSTANDING DEAFNESS 31
Deaf community *31*
Deaf Culture *32*
Deaf culture and community in South Africa *33*
2.2 HISTORY OF SIGN LANGUAGE IN SOUTH AFRICA 34
Attitudes on d/Deafness *35*
Controversy around spoken language vs sign language *39*
Audiologists and Speech Therapists and Audiologists *42*
South African Sign Language Interpreters *46*
Addressing Language Barriers in Healthcare *48*
CHAPTER 3: THEORITICAL FRAMEWORK 49
CULTURAL COMPETENCE FRAMEWORK 49

Cultural Competence: A Conceptual Framework for Teaching and Learning *50*

Campinha-Bacote's Framework of Cultural Competence in the Delivery of Healthcare Services *51*

Similarities and differences between the two frameworks *53*

RELEVANCE OF THE CONCEPTUAL FRAMEWORK TO THE CURRENT STUDY 55

RATIONALE FOR THE STUDY 57

CHAPTER 4: METHODOLOGY 60

RESEARCH QUESTION: 60

AIMS AND OBJECTIVES 59

RESEARCH DESIGN 60

PARTICIPANTS 61

Sampling strategy, inclusion criteria and sample size *61*

Sample Size: *61*

DATA COLLECTION TOOLS 63

Phase 1 – Survey *63*

Phase 2 – Interviews *63*

DATA COLLECTION 64

Procedure: *64*

Phase 1 ..... *65*

Phase 2 ..... *65*

DATA ANALYSIS: 66

Phase 1: Quantitative data analysis *66*

Phase 2: Qualitative data analysis *67*

ETHICAL CONSIDERATIONS: 68

PILOT STUDY 69

Phase 1: quantitative *70*

Phase 2: *70*

RELIABILITY AND VALIDITY 70

Phase 1: online survey *70*

Phase 2: interviews *71*

CHAPTER 5: RESULTS 73

5.1. PHASE 1: CONTEXT OF THE QUANTITATIVE SURVEY 73

5.1.1. QUANTITATIVE RESULTS 74

5.1.2. DEMOGRAPHIC DISTRIBUTION 75

5.1.3. HOW KNOWLEDGEABLE ARE YOU WITH DEAF CULTURE 77

Importance of Knowing About Deaf Culture by University Attended *88*

Figure 5.10: Which perspective/model/view of d/Deafness do you identify with? *90*

Respondents' Philosophical Stance on deafness/Deafness *90*

Figure 5.11. Which perspective/model/view of d/Deafness do you identify with, by sex? *91*

Figure 5.12: Which perspective/model/view of d/Deafness do you identify with, by type of profession? *92*

Figure 5.13: Which perspective/model/view of d/Deafness do you identify with, by type of university? *93*

Figure 5.14: Do you know the distinction between Deaf (capital "D") and deaf (lower case "d")? *94*

Figure 5.15: Knowledge of the distinction between Deaf (capital "D") versus deaf (lower case "d"), by age. *96*

Figure 5.16.: Knowledge of the distinction between Deaf (capital "D") versus deaf (lower case "d"), by type of profession *97*

5.2.5. Perceptions of Deaf culture *98*

Figure 5.17: From the medical view of deafness, being deaf is considered a disability, how would you respond to that? Agree or disagree *99*

Figure 5.18: From the medical view of deafness, being deaf is considered a disability, how would you respond to that? Agree or disagree, by perspective/model/view identified with *100*

Figure 5.19: Is being deaf is considered a disability, how would you respond to that?, by age *101*

Figure 5.20: Is being deaf is considered a disability, how would you respond to that? by type of profession *102*

Figure 5.21: Is being deaf is considered a disability, how would you respond to that?, by type of university *103*

5.2.6. Knowledge of SASL *104*

Figure 5.22. Level of study: practical training on SASL versus learning SASL *105*

Figure 5.23. In which year were you taught SASL, by age? *106*

Figure 5.24. In which year were you taught SASL? By type of profession *107*

Figure 5.25. In which year were you taught SASL? By type of University attended *108*

Figure 5.26. In which year of study did you receive clinical training (practical) on people who are Deaf/SASL users? By age *109*

Figure 5.27. In which year of study did you receive clinical training (practical) the Deaf/SASL users? By profession *111*

Figure 5.28. In which year of study did you receive clinical training (practical) on the Deaf/SASL users? By the University attended 112

Figure 5.29. What was the content covered in your undergraduate training in relation to SASL? Multiple response 113

Figure 5. 114

1. What was the content covered in your undergraduate training in relation to SASL? Multiple response, by profession 114

Figure 5.32. How long was the clinical training with the Deaf community? 115

Figure 5.33. How long was the clinical training with the Deaf community? By age 116

Figure 5.34. How long was the clinical training with the Deaf community? By profession 117

Figure 5.35. How long was the clinical training with the Deaf community? By University attended 118

5.2.6. Motivation to use SASL when providing services 119

Figure 5.36: In clinical practice, have you ever assisted someone who identifies with the Deaf community/SASL user? 120

Figure 5.37: In clinical practice, have you ever assisted someone who identifies with the Deaf community/SASL user? By profession 121

Figure 5.38: In clinical practice, roughly how many Deaf/deaf patients have you communicated w 122

th and provided services to? 122

Figure 5.39: In clinical practice, roughly how many Deaf/deaf patients have you communicated with and provided services to? By profession 123

Figure 5.40: Are you able to communicate with people who are Deaf/SASL users using SASL? 124

Figure 5.41: Are you able to communicate with people who are Deaf/SASL users using SASL? By type of profession 125

Figure 5.42: As an audiologist/speech therapist and audiologist, do you feel you were adequately prepared to provide services as well as communicate with the Deaf/SASL users? 126

Figure 5.43: As an audiologist/speech therapist and audiologist, do you feel you were adequately prepared to provide services, as well as communicate with the Deaf/SASL users? By profession 127

Figure 5.44: Do you use other methods (excluding SASL) of communication with Deaf people? 129

Figure 5.45: Do you use other methods (excluding SASL) of communication with Deaf people? By qualification 129

Figure 5.46: Do you think you require interpretation services when communicating with the Deaf community in your line of work? 130

Figure 5.47: Do you think you require interpretation services when communicating with the Deaf community in your line of work? By profession 131

5.2.7. Confidence in providing services in SASL 133

Figure 5.48: As an AUD/STA, how confident are you when communicating with the Deaf community?..... 133

Figure 5.49: As an audiologist/speech therapist and audiologist, how confident are you when communicating with the Deaf community? By profession..... 134

Figure 5.51: From a scale of 1-5, as an audiologist/speech therapist and audiologist, how competent are you when you are communicating with the Deaf community? By profession..... 137

Figure 5.52: Have you ever encountered challenges when communicating with Deaf people? 138

***4.3.1. Themes and subthemes**..... 142*

***Subtheme 2: Reliance on interpreters in clinical settings**..... 157*

CHAPTER 6: DISCUSSION..... 169

6.1 **PHASE 1: DISCUSSION**..... 169

***Knowledge of Deaf Culture Among STAs and AUDs**..... 169*

***The Importance of Deaf Culture in Speech-Language Therapy and Audiology**..... 172*

6.2 **PHASE 2: QUALITATIVE DISCUSSION**..... 191

***Knowing About Deaf Culture**..... 191*

***Medical view vs the cultural view**..... 194*

***The importance of advocacy**..... 195*

***Motivation to use/not use SASL**..... 196*

***Influence of SASL exposure on Professional Practice**..... 198*

***Factors affecting language retention and usage**..... 199*

***Impact of training duration and timing**..... 201*

***Confidence in Providing Services to the Deaf Community**..... 203*

***The Impact of COVID-19 on training and practice**..... 210*

***Perceived Tension and Challenges with the Deaf Community**..... 213*

***Potential bias in informational counselling for Deaf patients**..... 214*

CHAPTER 7: CONCLUSION & RECOMMENDATIONS 218

1. CULTURAL AND LINGUISTIC COMPETENCE..... 218

2. BARRIERS TO COMMUNICATION AND HEALTHCARE ACCESS..... 219

3. TRAINING..... 219

4. SYSTEMIC DISCRIMINATION AND EXCLUSIONS..... 220

LIMITATIONS OF THE STUDY 221

1. SAMPLE SIZE AND GENERALIZABILITY..... 221

2. Experiences of Deaf individuals 222

3. CONTENT OF THE CURRICULUM IN DIFFERENT UNIVERSITIES **222**

STRENGTHS OF THE STUDY **222**

1. Mixed-Methods Approach 222

2. Focus on responsive service delivery 223

3. Insights into Professional Biases 223

4. Relevance to South Africa's Multilingual Context 223

5. Encouraging reflection among AUDs and STAs 224

RECOMMENDATIONS AND IMPLICATIONS **224**

1. Encourage engagement with Deaf patients 224

2. Promoting Direct Communication and Reducing Overreliance on Interpreters 224

CONCLUSION **225**

REFERENCES **227**

APPENDICES **244**

Demographic Information *257*

Training and Preparation *257*

Communication with the Deaf Community *257*

Role and Perspective on the Deaf Community *258*

Professional Perspective on Deafness *258*

Working with Deaf Individuals and Families *258*

LIST OF FIGURES

Figure 5.1: Type of qualification, by sex

Figure 5.2: Respondents' knowledge of Deaf culture

Figure 5.3: Knowledge of Deaf culture as an STA/AUD by age

Figure 5.4: Knowledge of Deaf culture as an STA/AUD by type of profession

Figure 5.5: Knowledge of Deaf culture as an STA/AUD by type of university attended

Figure 5.6: Importance of knowing about Deaf culture

Figure 5.7: Importance of knowing about Deaf culture, by age

Figure 5.8: Importance of knowing about Deaf culture, by type of profession

Figure 5.9: Importance of knowing about Deaf culture, by type of university attended

Figure 5.10: Which perspective/model of D/deafness do you identify with?

Figure 5.11: Which perspective/model of D/deafness do you identify with, by sex

Figure 5.12: Which perspective/model of D/deafness do you identify with, type of profession

Figure 5.13: Which perspective/model of D/deafness do you identify with, by type of university attended

Figure 5.14: Distinction between Deaf "D" vs. deaf "d"

Figure 5.15: Distinction between Deaf "D" vs. deaf "d'' by age

Figure 5.16: Distinction between Deaf "D" vs. deaf "d" by type of profession

Figure 5.17: Is being deaf considered a disability?

Figure 5.18: Is being deaf considered a disability, by perspective/model of deafness you identify with

Figure 5.19: Is being deaf considered a disability, by perspective/model of deafness you identify with, by age

Figure 5.20: Is being deaf considered a disability, by perspective/model of deafness you identify with, by type of profession

Figure 5.21: Is being deaf considered a disability by perspective/model of deafness you identify with, by type of university attended

Figure 5.22: Level of study: Practical training on SASL vs. learning SASL

Figure 5.23: What is the year you were taught SASL, by age

Figure 5.24: In which year were you taught SASL, by type of profession

Figure 5.25: In which year were you taught SASL, by type of university attended

Figure 5.26: What is the year you received training on SASL by age

Figure 5.27: What is the year you received training on SASL, by profession

Figure 5.28: What is the year you received training on SASL, by university attended

Figure 5.29: Content covered in your undergraduate training in relation to SASL

Figure 5.31: Content covered in your undergraduate training in relation to SASL, by type of profession

Figure 5.32: How long was the clinical training with the Deaf community

Figure 5.33: How long was the clinical training with the Deaf community, by age

Figure 5.34: How long was the clinical training with the Deaf community, by the type of profession

Figure 5.35: How long was the clinical training with the Deaf community, by the type of university attended

Figure 5.36: In clinical practice, have you assisted someone identifying someone with the Deaf community

Figure 5.37: In clinical practice, have you assisted someone identifying someone with the Deaf community, by type of profession

Figure 5.38: Roughly how many Deaf/deaf patients have you communicated with and provided services to?

Figure 5.39: Roughly how many Deaf/deaf patients have you communicated with and provided services to? By type of profession

Figure 5.40: Are you able to communicate with people who are Deaf using SASL?
Figure 5. 41: Are you able to communicate with Deaf people using SASL, by type of profession

Figure 5.42: As AUDs/STAs: do you feel adequately prepared to provide services and communicate with Deaf/SASL users?

Figure 5.43: As AUDs/STAs: do you feel adequately prepared to provide services and communicate with Deaf/SASL users, By profession

Figure 5.44: Do you use other methods (excluding SASL) of communication with Deaf people

Figure 5.45: Do you use other methods (excluding SASL) of communication with Deaf people? By profession

Figure 5.46: Do you think you require interpretation services when communicating with Deaf community in your line of work?

Figure 5.47: Do you think you require interpretation services when communicating with the Deaf community in your line of work? By profession

Figure 5.48: As AUDs/STAs, how confident are you when communicating with the Deaf community?

Figure 5.49: As AUDs/STAs, how confident are you when communicating with the Deaf community? By profession

Figure 5.52: Have you encountered challenges when communicating with the Deaf community?

Figure 5.53: Have you encountered challenges when communicating with the Deaf community? by profession

LIST OF TABLES

Table 1: Demographic profile: phase 1

Table 2: Demographic profile: phase 2

Table 3: Detailed information: interview: Phase 2

Table 5.1: Demographic distribution of STAs and AUDs

Table 5.2: Themes and Subthemes

LIST OF APPENDICES

Appendix A: Participant information sheet for STAs and AUDs

Appendix B: Consent form: Audio-recording

Appendix C: Survey

Appendix D: Interview questions

Appendix E: Consent form for participation in the study

Appendix F: Ethics certificate

LIST OF ABBREVIATIONS

AUDs	Audiologists
CODAS	Children of Deaf Adults
CPD	Continuous Professional Development
HPCSA	Health Professionals Council of South Africa
NABSLHA	National Student Speech-Language-Hearing Association
PanSALB	Pan South African Language Board
SAAA	South African Association of Audiologists
SASLHA	South African Speech-Language and Hearing Association
SASL	South African Sign Language
SPSS	Statistical Package for Social Sciences
STAs	Speech therapists & Audiologists
SLTs	Speech Language Therapists
WHO	World Health Organisation

CHAPTER ONE: BACKGROUND

1.1 INTRODUCTION

The late President of South Africa, Nelson Mandela, is often quoted as having said, *"If you talk to a man in a language he understands, that goes to his head. If you talk to him in his language, that goes to his heart"* (Laka, 2014). This powerful statement encapsulates the profound role language plays in human connection and identity. Scholars, public speakers, and poets have frequently drawn upon these words to emphasize the importance of addressing individuals in their native language to foster deeper understanding and emotional resonance. Researchers such as Keysar et al. (2012) and Costa et al. (2014) have echoed this sentiment, linking language intrinsically to personal and cultural identity. Zalmay (2017) further elaborates on the importance of language, stating that it enables people to connect with others on a meaningful level, offering insights into their needs and emotions. Beyond communication, Zalmay (2017) notes that language facilitates the sharing of ideas, thoughts, and feelings, promoting unity and shaping the culture and beliefs of a community.

However, this connection between language and identity is frequently overlooked in minority communities, including the Deaf community where individuals are often compelled to communicate in languages that are not their own (Lane, 1999; Padden & Humphries, 2005). Language plays a crucial role in service delivery, particularly in healthcare, where communication barriers can significantly impact patient outcomes (World Health Organization, 2018; Khoza-Shangase & Mophosho, 2018). Globally, marginalised groups often experience poorer health outcomes compared to majority populations and may lose their native language in favour of dominant ones (Haimovich & Mora, 2020). Both in South Africa and internationally, mismatches in language between patients and healthcare practitioners pose a significant challenge to delivering effective care (Partida, 2012). This is because access to healthcare without barriers is a fundamental human right (Kuenburg et al., 2016).

Within the Deaf community, disparities in healthcare are heavily influenced by language and communication challenges (Foltz & Shank, 2019). Health services often fail to provide

information in formats that align with the communication needs of d/Deaf individuals. This lack of accessible communication potentially results in low health literacy, exclusion from preventive health measures, breaches of confidentiality, misdiagnoses, or substandard care (Masuku et al., 2021).

According to the World Health Organization, over 460 million people worldwide live with a hearing loss and are classified as d/Deaf (Bouzaher et al., 2024; Morisod et al., 2022). The term 'd/Deaf' encompasses both individuals with severe to profound hearing loss (referred to as 'deaf') which significantly impacts communication, and those who are part of Deaf communities around the world (referred to as 'Deaf'), which are cultural and linguistic groups united in their use Sign Language and shared values and experiences (Morisod et al., 2022). Importantly, 'd/Deaf' does not include people who are hard of hearing, a term used for those with residual hearing sufficient to benefit from auditory devices such as hearing aids or FM systems. Members of Deaf communities often view deafness as a distinct way of being rather than a disability requiring correction (Malebranche et al., 2020). While global data on individuals identifying as part of the Deaf community is limited, estimates from South Africa indicate that the number of South African Sign Language (SASL) users ranges from 700,000 to two million (SAnews.gov.za, 2024).

Research highlights significant health disparities affecting d/Deaf populations including challenges in accessing quality healthcare and achieving equitable health outcomes (Kuenburg et al., 2016; Steinberg et al., 2006; Ubido et al., 2002). These disparities extend across a range of essential services, including medical care, mental health support, substance use counselling, and social services, which remain largely inaccessible to d/Deaf and hard-of-hearing individuals (Tate & Adams, 2006; National Association of the Deaf, 2018; Pollard et al., 2014; Kuenberg, Fellinger & Fellinger, 2016; Lesch et al., 2018). Communication barriers with healthcare professionals are a key issue for d/Deaf individuals (Bartlett et al., 2008), often attributed to limited availability of sign language interpreters and insufficient training among healthcare providers in culturally sensitive communication practices (Bartlett, 2018; Henning et al., 2011). These challenges extend beyond healthcare, affecting health literacy due to restricted access to auditory media, informal conversations, and public health messaging tailored to hearing audiences (McKee et al., 2015).

In terms of health outcomes, d/Deaf individuals experience poorer outcomes compared to their hearing counterparts (Barnett et al., 2011).

In the last three decades, an extensive body of research has documented the challenges faced by d/Deaf individuals in accessing healthcare and benefiting from public health or preventative health messaging. Studies document that d/Deaf individuals are at increased risk for chronic illnesses, higher rates of mental health conditions such as anxiety and depression, and an elevated risk of suicide (Armstrong et al., 2016; Emond et al., 2015; Fellinger et al., 2012; Kushalnagar et al., 2019; Turner et al., 2007). Additionally, d/Deaf individuals often report perceiving their overall health as worse than that of the general hearing population (Fellinger et al., 2012; Kuenburg et al., 2016). These barriers, primarily rooted in communication difficulties, contribute to significant health disparities within this population (Kuenburg et al., 2016). Despite this wealth of research, there is a notable lack of studies focusing on the use of SASL by AUDs and STAs as a tool for service delivery to the d/Deaf community.

Research indicates that many AUDs and STAs lack proficiency in SASL (Hall, 2017; Moroe & Masuku, 2024). As a result, d/Deaf individuals often rely on alternative communication strategies such as written notes, lip reading (Brown et al., 2015; Shuler et al., 2013; Hall, 2017; Moroe & Masuku, 2024), or ad hoc interpretation by medically inexperienced bilingual relatives, nursing staff, or non-medical personnel at healthcare facilities (Benjamin et al., 2016; Meuter et al., 2015). While these strategies are intended to bridge communication gaps, they are frequently perceived as inadequate by d/Deaf individuals (Brown et al., 2015; Hommes et al., 2018).

The use of interpreters, though valuable, also presents challenges. Interpreters are often not formally trained in medical or audiological contexts, leading to concerns about translation accuracy, personal biases, and the potential for errors during consultations (Pfaff & Couper, 2009). Additionally, interpreters are not always readily available, and their absence can place undue pressure on non-medical hospital staff, who may be expected to assume interpreting responsibilities alongside their primary duties, often resulting in frustration and suboptimal outcomes (Pfaff & Couper, 2009).

In the South African context, it is concerning that AUDs and STAs rely on SASL interpreters. This is because their professional training typically includes an introductory module on SASL, as well as South African Deaf culture and community. This foundational training implies that AUDs and STAs should possess basic proficiency in SASL, equipping them to communicate directly with d/Deaf individuals and provide culturally and linguistically appropriate services. However, there is limited evidence of SASL being effectively utilized by AUDs and STAs in practice. On the contrary, numerous studies continue to highlight the persistent communication barriers experienced by individuals with hearing loss when accessing healthcare services, including audiological care (Kritzinger et al., 2014; Masuku et al., 2021).

Against this backdrop, this study aimed to explore the use of SASL by AUDs and STAs in service delivery to individuals who are d/Deaf. Additionally, it sought to examine these professionals' attitudes, knowledge, and competencies in serving this population. The study focused on understanding the perspectives of practicing AUDs and STAs on d/Deafness, their ability to provide accessible care to culturally Deaf individuals, and the broader implications for healthcare service delivery.

1.2 PROBLEM STATEMENT

Effective communication is a cornerstone of quality healthcare delivery, yet language barriers continue to hinder equitable access to care for minority groups, including the Deaf community (European Disability Forum, n.d.; Unspoken ASL, n.d.). Despite the critical role language plays in human connection and identity—as emphasized by Nelson Mandela's famous statement—healthcare services often fail to address the linguistic and cultural needs of Deaf individuals (Boston University School of Public Health, 2018). Globally and in South Africa, the incongruence between the communication methods of patients and healthcare providers leads to significant disparities in healthcare outcomes (European Disability Forum, n.d.; Unspoken ASL, n.d.). For d/Deaf individuals, who primarily use sign language, communication barriers often result in compromised healthcare experiences, lower health literacy, increased risks for misdiagnosis, and poorer health outcomes due to inaccessible communication modes (Royal National Institute for Deaf People, 2021).

In South Africa, SASL is recognized as one of the official languages. AUDs and STAs receive foundational training in SASL and Deaf culture (Parliament of South Africa, 2023; CRL Rights Commission, 2023). However, there is limited to no follow up on making SASL accessible for Deaf clients in STA and AUD practice. Furthermore, not much has changed in terms of practice and pre-service training. This leads to the question of what is actually holding back the use of SASL in Audiology. As a result, many AUDs and STAs lack proficiency in SASL and fail to use their training to effectively provide audiological services to d/Deaf individuals (Moroe & Hughes, 2020; Nagdee & de Andrade, 2023). Instead, they often rely on suboptimal strategies such as written notes, lip-reading, and interpreters. While the use of interpreters can be beneficial, it introduces challenges such as translation errors, interpreter bias, and limited availability. The shortage of qualified SASL interpreters further exacerbates frustrations, miscommunication, substandard healthcare, and inefficiencies within healthcare facilities, placing undue burden on non-medical staff (Nagdee & de Andrade, 2023).

The disconnect between the training provided to AUDs and STAs and its practical application highlights a broader issue: the lack of cultural competence in healthcare service delivery for d/Deaf populations (Khoza-Shangase & Mophosho, 2018). While international research faces similar challenges, there is limited evidence on how AUDs and STAs in South Africa use SASL to provide audiological services to the Deaf community, hindering efforts to improve healthcare access and equity for this population (Pillay et al., 2020). Understanding how AUDs and STAs utilize their SASL training, identifying barriers to its application, and exploring their perceptions of serving d/Deaf individuals is crucial to addressing these inequities and meeting the linguistic and cultural needs of one of the country's most marginalized communities (Khoza-Shangase & Mophosho, 2021). Without this understanding, the healthcare system risks perpetuating inequities and failing to meet the linguistic and cultural needs of one of the country's most marginalized populations (World Health Organization, 2018).

1.2 THE RESEARCH QUESTION, AIMS AND OBJECTIVES OF THE STUDY

Aim

The aim of the study was to explore the perceptions, knowledge, and attitudes of AUDs and STAs regarding the use of SASL in their professional practice when serving Deaf individuals.

Research Questions

Based on the above aim, this study was guided by the following research question:

- What are the perceptions, knowledge, and attitudes of AUDs and STAs regarding the use of SASL as a tool of service delivery when working with SASL users/people who are d/Deaf?

Research Objectives

- To explore STAs and Audiologists AUDs' knowledge and perceptions regarding Deaf culture and SASL.
- To understand the motivations of STAs and AUDs for using or not using SASL when providing services to Deaf individuals or SASL users.
- To evaluate the confidence levels of STAs and AUDs in delivering services using SASL.
- To explore the perspectives of STAs and AUDs on the perceived tensions between professionals in their fields and the Deaf community.

1.4 SIGNIFICANCE OF THE STUDY

This study is significant in multiple ways. First, it provides deeper insight into the factors that influence the training and practical application of SASL and Deaf culture among STAs and AUDs. While existing research has explored the inclusion of SASL in professional training, few studies have examined the gap between theoretical knowledge and practical implementation. This study fills that gap by highlighting the barriers professionals face in using SASL in clinical settings,

particularly their continued adherence to a medical model of deafness despite their exposure to Deaf culture.

Secondly, this study holds important implications for training programmes and policy development in South Africa. Many university programmes offer SASL training, yet the lack of practical confidence among professionals indicates a need for curriculum reform. By understanding the limitations of current training approaches, universities and policymakers can develop strategies to integrate more immersive, experiential learning opportunities with Deaf communities. Ensuring that professionals receive consistent and comprehensive training across institutions will contribute to more effective and inclusive healthcare services for Deaf individuals.

Finally, this study provides an opportunity to understand the real-world experiences of STAs and AUDs in their engagement with Deaf patients. While previous research has often focused on Deaf individuals' experiences in clinical settings, there is limited literature on how hearing professionals themselves perceive their training, confidence, and challenges in using SASL. By including the voices of these professionals, this study offers first-hand insights into the factors that hinder SASL application, thereby informing strategies for improving communication access and service delivery within audiology and speech therapy.

1.5 DEFINITION OF KEY TERMS USED IN THIS STUDY

Audiologist: An educational and health care professional whose scope of practice encompasses preventing, identifying, assessing, treating, as well as managing organic disorders of the auditory and balance system, auditory processing disorders and developmental or acquired speech disorders caused by a hearing loss (Stach, 2010).

Cultural competence: Cultural competence is the ability of individuals and organizations to effectively deliver services that meet the social, cultural, and linguistic needs of patients. It involves understanding, appreciating, and respecting cultural differences and addressing potential biases or barriers in service delivery (Betancourt et al., 2002).

d/D: The term ‘d/Deaf’ refers to individuals with severe to profound hearing loss (‘deaf’) which impairs communication, as well as to members of Deaf communities around the world (‘Deaf’), which are distinct cultural and linguistic minorities that use Sign Language to communicate and share common experiences and values (Morisod et al., 2022).

Deaf Community: According to Munoz-Baell & Ruiz (2000), a deaf community is inclusive of people that are Deaf and hard of hearing sharing a common language, common experiences, values, as well as common manner of interactions with each other.

Deaf culture: Deaf culture refers to the social beliefs, traditions, art, history, and shared practices of individuals who identify as part of the Deaf community. This culture is rooted in the use of sign language as the primary mode of communication and emphasizes a shared sense of identity, pride, and belonging among its members (Padden & Humphries, 1988).

Deaf gain: Deaf Gain is a concept that reframes deafness as a valuable form of human diversity rather than a deficiency. It highlights the unique cognitive, cultural, and linguistic contributions of Deaf individuals and communities to society. This perspective challenges the traditional medical model of deafness as a "loss" and instead emphasizes the advantages of sign language, visual communication, and Deaf culture (Bauman & Murray, 2009).

Deaf vs deaf: The term "deaf" can be categorized into two forms: "Deaf" with a capital "D" and "deaf" with a lowercase "d." Individuals identified as "Deaf" (capital "D") are those with severe or profound hearing loss who also embrace and identify with Deaf culture (Schow & Nerbonne, 2013). In contrast, "deaf" (lowercase "d") refers to individuals with severe or profound hearing loss who focus on using amplification and residual hearing but do not associate with a cultural identity (Schow & Nerbonne, 2013).

Direct import: Direct import is defined as the influence of spoken language on a signed language (Akach et al., 2009).

Hard of hearing: Involves individuals with mild to severe hearing loss (Munoz-Baell, & Ruiz, 2000). Furthermore, people who are hard of hearing usually communicate through the use of spoken language and can thus benefit from assistive devices such as hearing aids (Munoz-Baell, & Ruiz, 2000).

Language attrition: Language attrition is the gradual loss of proficiency in a language due to reduced use, often occurring in bilingual individuals, immigrants, or those who shift to speaking a dominant language. This can affect vocabulary, grammar, and pronunciation over time (Schmid, 2011).

Linguistic competence: Linguistic competence refers to the capacity of an individual or organization to communicate effectively in the preferred language of individuals with limited English proficiency, those with low literacy skills, or those who use alternative communication methods, such as sign language (Burch & Kafer, 2008).

Medical view of deafness: views deafness as a disability that needs to be fixed through medical intervention (Munoz-Baell, & Ruiz, 2000). Therefore, people who are Deaf need to be 'normalised' through medical intervention (Munoz-Baell, & Ruiz, 2000).

Minority groups: Minority groups refer to populations that differ from the dominant group in terms of characteristics such as race, ethnicity, religion, language, or culture (Macionis & Plummer, 2012). They are often marginalized or experience unequal treatment within a society due to their distinct identity or socio-political status. These groups may be numerically smaller but are primarily defined by their disadvantaged position in power relations and access to resources (Macionis & Plummer, 2012).

Pre-lingually deaf: Individuals who became deaf prior to acquiring spoken language (Munoz-Baell, & Ruiz, 2000).

Social-Cultural View of Deafness: views Deafness as a cultural identity rather than an audiological term intervention (Munoz-Baell, & Ruiz, 2000). In that, members of the Deaf community feel proud of their Deafness and recognise the sociolinguistic differences between them and those who label themselves as hard of hearing intervention (Munoz-Baell & Ruiz, 2000).
South African Sign Language: A language typically used by Deaf people during communicative interactions in South Africa, it is a unique language that is not linguistically related to any of the spoken languages in the country (Reagan, 2008).

Speech therapist and audiologist: is a dually qualified health personnel specialising in completing evaluations of hearing, assisting people manage their hearing loss as well as working with people with communication difficulties, dysphagia, head and neck (Stach, 2010).

1.5 OUTLINE OF THE DISSERTATION

This dissertation consists of six chapters. In *Chapter One*, the dissertation provided a general introduction and a background for the study. This includes an introduction, problem statement, significance of the study, aim and objectives, and the research question that guided the study and the definition of key terms used in the study.

Chapter Two covered a review of literature from previous studies, to gain more insight on AUDs and STAs use of SASL in service delivery.

Chapter Three provided detailed information about the Cultural competence of teaching and learning and Campinha-Bacote's framework of cultural competence in the delivery of health care services, which are the main theoretical frameworks that underpinned the study.

In *Chapter Four*, the methodological issues and the data used for the research were elaborately discussed. This includes issues related to the research design, data collection and analysis, as well as the ethical considerations which are critical when working with human participants in such a sensitive study.

Chapter Five covered the presentation and analysis of research findings. This was guided by the study's research questions.

In *Chapter Six*, discussed the data as presented in *Chapter Five*. Much like in *Chapter Five*, this was done in line with the current literature.

Chapter Seven concluded with general conclusions and recommendations of the study.

CHAPTER TWO: LITERATURE REVIEW

2.1 Understanding Deafness

Deafness is an umbrella term for the partial or total inability to hear in one or both ears and can affect individuals of all ages, from birth to late adulthood (World Health Organization, 2018). The term “deaf” refers to an individual with little to no functional hearing while “hard of hearing” refers to an individual with mild to moderately severe hearing loss (Padden & Humphries, 1988). According to the Pan South African Language Board (PanSALB), there are 1.4 million people with hearing loss in South Africa, with 600,000 being deaf. However, the number of people using SASL remains unconfirmed and requires extensive research for accurate demographics representation. What is clear is that not all deaf people use SASL (SAnews.gov.za, 2024). PanSALB reports that academic researchers estimate the number of SASL users to be between 700,000 to two million, while Statistics South Africa reports only 12,400 users. This figure contrasts with the 2011 estimates, which approximated the number of SASL users at 255,000 (SAnews.gov.za, 2024). Within these populations of deaf and hard of hearing individuals, some identify with and align themselves with Deaf culture, often denoted with a capital “D,” as explained in the section below.

Deaf community

A community is defined as a group of individuals who share common goals and possess a certain degree of autonomy in organising the social life and responsibilities of its members (Padden & Humphries, 1988; Storbeck & Jurgens, 2007). The Deaf community is composed of individuals who are Deaf and hard of hearing, united by a common language, shared experiences, values, and a distinct mode of interactions. Members of this community typically use sign language as their preferred means of communication (Munoz-Baell & Ruiz, 2000). According to Storbeck and Jurgens, (2007) and Heap (2003), as cited by Stander and McIlroy (2017) Deaf individuals can belong to more than one community, language, and culture, based on factors such as location, shared experiences, goals, language, and identity.

For Deaf individuals, sign language is an integral part of their identity, culture and community (Bauman & Murray 2009). The use of sign language not only connects Deaf individuals to others within their community but also serves as a form of membership into a linguistic subculture that is not accessible to everyone (Bauman & Murray, 2009). The Deaf Community in South Africa is considered a minority and remains protective of its culture and language (Selzer, 2010; Moroe 2013). Despite South Africa's pride in being a multilingual and multicultural country, the Deaf community has historically faced challenges in using SASL (Pray & Jordan, 2010). One of the primary reasons for these challenges is that SASL was not officially recognised as a South African language for many years (Reagan, 2020).

It is only in recent years that SASL has been acknowledged as a medium of instruction at schools for learners with a hearing loss and those who identify with a Deaf community (Reagan, 2020). This recognition marked a significant victory against linguistic oppression, particularly within the education system (Morgan, et al, 2016). However, barriers persist. The lingering effects of apartheid continue to shape social divisions between hearing and Deaf individuals, reinforcing disparities in access to services and due to deep-rooted divisions within the South African community, where there is us (hearing people) and them (Deaf people) (Reagan & Penn, 2006). Furthermore, Deaf individuals in South Africa face not only systemic inequalities but also stigma, both in terms of being 'audiologically deaf' and their cultural Deaf identity (Reagan & Penn, 2006).

Deaf Culture

Culture is defined as a way of living developed by a group of individuals to meet psychosocial needs (Johnston, 2006). It encompasses norms, values, beliefs, attitudes, behavioural styles, and traditions, all of which influence language and dialect (Bauman-Waengler, 2004). Historically, Deaf culture has often been regarded as inferior to hearing culture, which resulted in the oppression and discrimination of Deaf individuals. This has led to Deaf culture, leading to the oppression and discrimination of Deaf individuals (Woodward, 1982, as cited in Stander & McIlroy, 2017). This marginalisation has resulted in Deaf culture being seen as a minority, lacking the recognition and status enjoyed by hearing cultures (Stander & McIlroy 2017).

Despite being a linguistic minority, Deaf people take pride in their culture and often prioritise their Deaf identity above other personal identifiers (Bauman, 2013). This strong sense of identity should serve as a critical reminder to AUDs and STAs that language and identity are central to the lived experiences of Deaf individuals and must be respected at all times.

It is therefore essential for AUDs and STAs to develop the ability to communicate effectively with Deaf clients through SASL, while also embracing the cultural differences embedded in the language. Since undergraduate training includes exposure to Deaf culture and SASL, AUDs and STAs should be adequately prepared to interact with Deaf clients in a manner that is both competent and culturally sensitive. Embracing Deaf identity and ensuring accessible communication are not only ethical obligations but also key components of delivering inclusive and effective services.

Moreover, Deaf children typically arrive at schools for the Deaf with limited awareness of what Deaf culture entails. Since most Deaf children are born to hearing parents, Deaf communities are often described as "one generation thick," meaning that each generation must rediscover and embrace its cultural identity (Kusters, 2014). Nonetheless, Deaf culture itself is rich and deeply rooted, contributing to a strong sense of belonging and shared experience among its members.

Deaf culture and community in South Africa

The Deaf community in South Africa is unique, consisting of multiple micro-communities, each with its own cultural sensitivities (Van Herreweghe & Vermeerbergen, 2010). Deaf individuals are not a homogeneous group but are instead diverse, belonging to different races, languages, cultural backgrounds, and social groups (Stander & McIlroy, 2017). Despite this diversity, Deaf people in South Africa face persistent misconceptions from the hearing population. Many hearing individuals, due to a lack of awareness, perceive Deaf people as ‘disabled’, ‘hearing impaired’, or ‘handicapped’ —largely because of the dominance of the medical model of disability.

This model frames deafness as a deficit or pathology that needs to be "fixed" through intervention or technology, rather than recognising it as a cultural and linguistic identity. As a result, Deaf

individuals are often marginalised or misunderstood, with their language, culture, and lived experiences overlooked or undervalued by mainstream society.

However, Deaf individuals themselves do not share this disabilist perspective. Instead, they emphasize the concept of "Deaf Gain"**,** viewing Deafness not as a loss but as an enrichment of human experience through unique cultural and linguistic contributions (Bauman & Murray, 2009). According to Bauman (2013) and Meir et al. (2010), Deaf individuals embrace their Deaf identity while also participating in the dominant hearing culture, making them multicultural in nature. However, their primary identity is as Deaf, with other social or ethnic identities—such as being Black or Afrikaans—taking secondary importance (Aarons & Akach, 1998). This highlights the strong sense of belonging within the Deaf community and the central role that SASL plays in shaping their cultural identity. Therefore, this implies that AUDs and STAs must be mindful of their roles and responsibilities when working with Deaf clients. They are ethically and professionally obligated to provide services in a manner that is not only effective but also culturally respectful and appropriate.

2.2 History of Sign Language in South Africa

Language is defined as the ability to speak and be understood by others who know that particular language (Fromkin, et al. 2018). Fromkin et al (2018) assert that knowing a particular language means that an individual can produce strings of sounds or signs that can be understood and interpreted by others. Therefore, language is more than just speech, it includes manual languages too. People who are d/Deaf produce and understand sign language just as hearing people produce and understand spoken language.

Sign language is a system of arbitrary grammatical symbols and signals that change according to the members of the community (Sacks, 2009). d/Deaf people use sign language to communicate, share ideas, intentions, interact with each other, as well as convey their culture from generation-to-generation (Sacks, 2009). Reportedly, there are over 300 different sign languages in the world (Padden & Humphries, 2005); however, one that is distinct to South Africa is SASL (Reagan et al., 2006). Despite being a fully-fledged language, historically, sign language was

marginalised world-wide as many educators were trained to use oral methods such as lipreading (Storbeck & Martin, 2010) apartheid era (from 1948-1994), the governed policy segregated South Africa's white minority and the non-white majority (Wehrmeyer, 2014). In relation to SASL, Wehrmeyer (2014) narrates that the South African signing context was further complicated by the segregation based on race as well as clan affiliation in both Deaf and hearing schools during the apartheid era. This meant that Deaf people were also isolated from one another (Wehrmeyer, 2014). Furthermore, Magongwa (2012) confirms that the apartheid era had a profound impact on both language development and access to education for people who are Deaf, reinforcing systemic inequalities that continue to affect the Deaf community today.

Storbeck and Martin (2010) recount that the first school for the Deaf was established in Cape Town in the year 1863. This school was established by the Irish Dominican Order and enrolled all races. The school used sign language as a medium of instruction (Storbeck & Martin, 2010). Irish signs were used, and it was in the 1880s when oralism became formally adopted (Storbeck & Martin, 2010). Wehrmeyer (2014) states that it was only in 1994 under the Mandela democracy that SASL was formally recognised as the primary language of the South African Deaf population. Additionally, at this dispensation, SASL has been approved as South Africa's 12th official language (Reagan, 2020). Post the apartheid era in South Africa, there are currently 47 schools catering for learners who are Deaf (Storbeck & Martin, 2010). For the past twelve years, no new schools for the Deaf have been identified.

Attitudes on d/Deafness

The way deafness is defined plays a crucial role in shaping how d/Deaf individuals are perceived and treated by society. Deafness can be understood through two primary lenses: the medical model, which views it as a condition or disease, and the sociocultural model, which recognizes it as a distinct cultural identity. These differing frameworks significantly influence practitioners' attitudes toward deafness and hearing loss, potentially impacting their ability to deliver care that is culturally competent, accessible, and comprehensive for d/Deaf.

Medical Model of Deafness

The medical model of deafness refers to "deaf," written with a lowercase "d," as a condition characterized by profound hearing loss, an unwanted disability (Putnam et al., 2022). This is because, in the 1980s, the World Health Organization (WHO, 1980) established a framework for understanding disability, categorizing deafness as an loss or disability involving limitations or abnormalities in bodily functions (Putnam et al., 2022). The medical perspective often employs terms such as "hearing impaired" to describe individuals who are d/Deaf or hard of hearing. This terminology suggests a deficit or implies that something is inherently wrong, thereby portraying the individual as less whole or needing to be fixed (Bauman & Murray, 2014).

Treatments such as cochlear implants, hearing aids, and corrective surgeries, prioritized as part of the medical model, focus on early interventions to promote spoken language development and foster parent-child bonding (Copeland & Pillsbury, 2004; Friedner, 2023; Morgan, 2022). Reportedly, as of December 2019, approximately 736 900 registered CI devices have been implanted globally, including 2877 in South Africa (Bhamjee et al., 2022). Khoza-Shangase and Bent (2025) report that cochlear implants have become a widely used form of intervention for Deaf and hard-of-hearing children. This points to a growing trend in the adoption of CI devices within the Deaf community, particularly among younger populations.

While the medical model provides effective solutions for functional impairments, it has been critiqued for its narrow focus on individual limitations, often neglecting broader social factors and the strengths of individuals who are d/Deaf (Kanter, 2014). AUDs and STAs, owing to their medical training, which emphasises medical approaches to d/Deafness, whether consciously or unconsciously embrace the medical views of deafness—a perspective that views deafness primarily as a physiological deficit that requires correction or treatment.

According to an article published in the Journal of Speech, Language and Hearing Research, while often implicit, most healthcare practices and training programmes in the United States align with the medical model. This approach primarily emphasizes the biological and pathological symptoms of diseases and conditions at the individual level (Warren et al., 2024). This further supports that AUDs and STAs are trained in the medical model of deafness. This

approach can influence how STAs and AUDs perceive Deaf individuals and their needs, often placing emphasis on technological interventions such as hearing aids, cochlear implants, and speech therapy, rather than considering the cultural and linguistic identity of the Deaf community. Consequently, Deafness is frequently framed as a "problem" to be fixed, rather than as a difference to be embraced.

Such a perspective can unconsciously marginalise Deaf culture and SASL, particularly when services are delivered without sensitivity to the cultural and communicative preferences of Deaf clients. Without critical reflection and culturally responsive training, AUDs and STAs may unintentionally reinforce ableist attitudes and practices, even when their intentions are to support and assist.

Embracing the medical model has embedded assumptions. For instance, Ha'am (2017) states that viewing deafness as a deviation from the ideal human form, where hearing is considered essential to being "fully human" perpetuates audism, a belief in the superiority of hearing individuals over those who are deaf or hard of hearing (Sager, 2019). Lane (1992) identifies two forms of audism: institutional and metaphysical. Institutional audism refers to systemic advantages afforded to hearing individuals, while metaphysical audism frames the ability to hear and speak as fundamental attributes of humanity (Bauman, 2004). In this context, AUDs and STAs may unintentionally reinforce audism due to their professional training and roles, which position them as gatekeepers of normative communication methods. This reinforces a framework where sign language and Deaf cultural identity may be undervalued, limiting the potential for a more inclusive understanding of d/Deafness that respects both medical needs and cultural identities.

Cultural view of Deafness

A cultural view of Deafness (uppercase 'D') is the social view of Deafness that recognises Deaf people as a cultural minority (Knight, 2015). The cultural view of Deafness views sign language as a natural language of Deaf people (Knight, 2015). Furthermore, the cultural view of Deafness accepts the Deaf community as a cultural sub-community of the wider hearing society and thus does not consider themselves to be disabled (Knight, 2015). People who are Deaf define and experience being Deaf as a cultural identifier and sense of belonging to the Deaf community.

Therefore, according to the Deaf community, implantation of cochlear implants and or the use of hearing amplification devices is unnecessary as they have a language and a culture of their own that does not require the use of those devices (Knight, 2015). Additionally, Knight (2015) states that many people in the Deaf community are clear about not wanting to hear, as successful communication occurs without the ability to hear, thus seeing no reason to change with the advances of new technology. Puladevicience (2011) and Grennan (2019) highlight that Deaf people possess a rich culture, a distinct language in the form of Sign Language, and a strong sense of community and identity. Within this cultural-linguistic framework, many Deaf individuals do not view themselves as having a disability but rather as members of a linguistic minority. From this standpoint, interventions such as cochlear implants and hearing aids—often promoted by AUDs and STAs—can be perceived as efforts to "normalise" Deaf individuals, thereby interfering with their cultural identity and sense of belonging within the Deaf community.

Cochlear implants, in particular, have sparked debate within the Deaf community. While some individuals and families embrace the technology, others view it as a threat to Deaf culture, especially when implantation is done at an early age without sufficient exposure to Sign Language or Deaf role models. For many, cochlear implants symbolise the dominance of the medical model of deafness, which pathologises deafness and overlooks its social, cultural, and linguistic dimensions.

There is also a recognised dearth of research exploring Deaf people's views specifically towards AUDs and STAs. Therefore, a recommended study emanating from this is exploring the view of Deaf clients towards CI's and AUDs/STAs.

However, anecdotal accounts and small-scale studies suggest a complex and often ambivalent relationship. Deaf individuals may feel that AUDs and STAs focus too heavily on remediation (e.g., speech and hearing correction) rather than communication access and cultural affirmation. There may also be mistrust, particularly if professionals lack fluency in SASL or show limited understanding of Deaf culture. This disconnect can result in services that feel exclusionary or misaligned with the actual needs and values of Deaf clients (Grennan, 2019).

To foster more positive relationships and provide culturally appropriate care, it is critical that AUDs and STAs engage with the Deaf community, respect their perspectives, and embrace Deaf culture and SASL as central to service provision.

Controversy around spoken language vs sign language

The hearing community, also referred to as the dominant culture, use spoken language to communicate, whilst the Deaf community uses sign language. The differing modes of communication have and continue to cause tension between the hearing culture and the Deaf culture. Primarily, this is attributed to the hearing community seeing sign language as an inferior language, reserved for a minority group of people (Akach et al., 2009). As such, sign language is often stigmatized, thus leading to the discrimination and exclusion of Deaf people/SASL users in a predominantly hearing world. The difference between SASL users and Deaf people is that SASL users do not identify with the Deaf community, whilst Deaf people belong to the Deaf community. This is mainly because hearing people do not acknowledge Deaf people's cultural identity and perceive sign language as a lesser form of communication, thus expecting Deaf people to adjust and accommodate the hearing community (Loughran, 2013). As such, Deaf people are coerced to resort to writing and lip-reading to communicate with hearing people and avoid being marginalised (Akach et al, 2009). This is also seen in what Akach et al (2009) terms 'direct import' in high schools or universities. Direct import is defined as the influence of spoken language on a signed language (Akach et al., 2009). Particularly in sign language this is often the case, whereby most teachers teaching sign language are hearing, and have little to no experience with Deafness, Deaf culture, or even sign language, and as the hearing teachers learn sign language, direct import may occur (Storbeck & Martin, 2010).

Globally, several studies have documented the experiences of Deaf people's interactions with the hearing community. These studies have explored the modes of communication for Deaf people in relation to access to publicly available services such as education, healthcare, and the workplace (Campinha-Bacote, 2003; Witko et al., 2017; Pearson et al., 2020; Takagaki et al., 2019; Chong et al., 2021). Some studies have also explored family dynamics within Deaf families, particularly in families where Deaf parents have hearing children (Searls, 2021; Lederberg et al., 2013; Knoors, 2016). Whilst only a few studies such as Moroe (2019) have focused on the relationship between AUDs and STAs and the Deaf community.

Communication between Deaf people and hearing people has always been rocky (Punch et al., 2004). Therefore, creating tension between the two groups. According to Punch et al (2004), most Deaf individuals are most likely to encounter daily barriers and challenges in relation to communication, such as a range of social, attitudinal, and structural barriers.

Deaf people have been experiencing communication barriers throughout their lives in a hearing world, as well as in a range of levels, including but not limited to interpersonal, individual, and systematic levels-of which are paramount in health care communication (Yeo & Moore, 2003). Furthermore, Yeo and Moore (2003) point out that communication barriers experienced by Deaf people potentially generate feelings of shyness and insecurity, resulting in loneliness due to the thought of miscommunication with others. Contributing to this loneliness are environments where Sign Language is not readily accepted or understood by hearing individuals, further isolating Deaf people from meaningful social interaction.

When a Deaf individual consults an AUD or STA, several barriers may hinder effective communication and service delivery. One of the primary challenges is the language barrier, as many AUDs and STAs are not proficient in sign language. This lack of fluency limits their ability to engage directly with Deaf patients, often resulting in miscommunication or the exclusion of Deaf individuals from meaningful healthcare discussions (Kuenburg, Fellinger, & Fellinger, 2016). In cases where AUDs and STAs attempt to rely on alternative communication strategies—such as written notes, lip-reading, or gestures—these methods can also be ineffective, leading to misunderstandings and incomplete healthcare information (McKee et al., 2015).

Beyond language barriers, AUDs and STAs may also unconsciously adopt a paternalistic attitude when interacting with Deaf patients. As a result, some professionals may assume an authoritative role, prioritizing medical interventions such as hearing aids and cochlear implants over communication strategies that align with the patient's preferences, thus aligning with the medical model of deafness. Such practices reflect and reinforce the medical model of deafness, which frames deafness primarily as an individual impairment that requires correction or "fixing" to help the person conform to societal norms. This model often overlooks the cultural and linguistic

aspects of Deaf identity, potentially marginalising Deaf individuals and limiting their access to services that fully respect their needs and choices. Hence, a paternalistic approach can undermine the shared decision-making process, making Deaf patients feel disregarded, disempowered, or pressured to conform to hearing-centric solutions (Napier & Kidd, 2013).

The ongoing debate between spoken language and sign language has created a challenging dynamic between STAs, AUDs, and the Deaf community. This tension arises from several factors, including professional and personal biases, legal obligations, and the need for culturally sensitive service provision. Many STAs and AUDs come from a predominantly hearing background, which can unconsciously shape their clinical approaches and attitudes toward deafness. Studies suggest that professionals who are not immersed in Deaf culture often default to the medical model of deafness, viewing hearing loss as a condition that needs to be treated rather than a cultural-linguistic identity to be embraced (Haualand & Allen, 2009; Young et al., 2019). As a result, some professionals may prioritize interventions such as hearing aids and cochlear implants over sign language-based communication strategies, reinforcing a bias toward spoken language. As part of a more inclusive intervention approach, there must be a deliberate effort to centre the Deaf community and raise awareness about its culture, language, and identity. This is essential to ensure that intervention strategies are balanced and respectful of diverse perspectives. For example, AUDs and STAs should present individuals and families with a range of options—such as cochlear implants, amplification devices, or meaningful engagement with the Deaf community—allowing for informed decision-making that aligns with the individual's needs, values, and communication preferences.

Furthermore, the constitutional Bill of Rights mandates that all individuals, including Deaf individuals, receive equitable healthcare services in a language of their choice. In South Africa, Section 27 of the Constitution guarantees access to healthcare, while the recognition of SASL as an official language strengthens the right of Deaf individuals to communicate in their preferred language (South African Constitution, 1996). Despite this, research indicates that many healthcare providers lack sufficient SASL proficiency, creating barriers to effective communication and reducing healthcare accessibility for Deaf patients (Storbeck & Magongwa, 2006). Providing culturally appropriate services also requires an understanding of Deaf identity, which is deeply

rooted in sign language and community values. Professionals trained solely in spoken language rehabilitation may struggle to integrate culturally affirming approaches into their practice.

Studies highlight that STAs and AUDs who engage in Deaf community interactions or receive training on Deaf culture demonstrate greater appreciation for Deaf identity and are more likely to adopt a people-centered, culturally responsive care models (Harmer, 1999; Kuenburg, Fellinger, & Fellinger, 2016). However, the lack of structured Deaf cultural education in many training programmes continues to contribute to gaps in culturally competent service provision.

Audiologists and Speech Therapists and Audiologists

AUDs and STAs are medical/healthcare professionals whose scope of practice involves promoting communication as well as preventing, identifying, assessing, diagnosing, treating, and managing disorders of the hearing, auditory, and vestibular systems (Stach, 2010). These professionals often serve as the first point of contact for families of children who are d/Deaf or hard of hearing (Moroe, 2018). In fact, AUDs and STAs are uniquely positioned to guide families regarding hearing loss, communication options, and available resources.

In South Africa, AUDs and STAs undergo a four-year bachelor's degree equivalent to an honours degree, qualifying them as either AUDs or dual-qualified STAs (Swanepoel, 2006). Five universities currently offer undergraduate training in this field: the University of the Witwatersrand, University of Pretoria, University of Cape Town, University of KwaZulu-Natal, and Sefako Makgatho Health Sciences. Historically, professionals could register as AUDs, speech-language therapists (SLTs), or in a dual capacity as STAs, reflecting the structure of a combined degree in speech-language therapy and audiology Jacobson (2002). However, in recent years, the degree programmes have been split into separate curricula for audiology and speech-language therapy. As a result, graduates now register exclusively as either AUDs or SLTs, depending on their chosen field of study (Pillay et al., 2020).

Training in these professions typically includes components on SASL and Deaf culture. While the specific content may vary depending on the university attended, practical training in

SASL, as well as Deaf culture and community, is an integral part of the curriculum. As such, it is expected that STAs and AUDs should be able to communicate with and provide services in SASL to d/Deaf clients. However, evidence suggests otherwise. A study by Panning et al. (2021) revealed that despite learning sign language, many AUDs and STAs are unable to communicate effectively or use clinically relevant SASL. This has created significant communication barriers between them and d/Deaf individuals. As a result, reportedly, many d/Deaf individuals avoid accessing healthcare services due to a fear of miscommunication. This sentiment is supported by Kritzinger et al. (2014), who found that d/Deaf individuals were more likely to avoid healthcare services due to the absence of interpreters and poor communication. Similar findings were reported by Bachman et al. (2006), who noted that d/Deaf individuals visit doctors less frequently. The primary barrier—miscommunication—has led to feelings of frustration, fear, and mistrust and tension toward healthcare services. Steinberg et al. (2006) found that d/Deaf participants in their study reported instances where healthcare providers failed to respect their intelligence, motivation, and desire to actively participate in their own healthcare and decision-making processes. This lack of respect may stem, in part, from health professionals' limited knowledge of Sign Language and insufficient cultural competence when working with the Deaf community. Additionally, AUDs and STAs may, either consciously or unconsciously, hold the view that Deaf clients—perceived through the lens of the medical model as 'disabled'—are not fully capable of making informed decisions. Such assumptions can result in the exclusion of Deaf individuals from meaningful participation in decisions about their care, further perpetuating disempowerment and marginalisation.

Audiologists and Speech Therapists, and Audiologists and the Deaf Community

As mentioned earlier, AUDs and STAs are often the first professionals consulted for advice on hearing loss (Moroe, 2019). Consequently, the relationship between AUDs, STAs, and d/Deaf individuals is critical. These professionals play a significant role in shaping parental decisions regarding their child's communication and developmental needs. Eleweke and Rodda (2000) identified several factors that influence parents' selection of a communication mode for their child with hearing loss. These include the information provided to parents, the quality and availability of support services, parents' perceptions of assistive technology, and the attitudes of service

professionals and educational authorities. Given the pivotal role AUDs and STAs play, their involvement requires careful consideration to ensure that the guidance provided is both balanced and inclusive. However, concerns have been raised about the quality and impartiality of the advice offered by these professionals. In particular, the tendency to overemphasise CIs as the primary or preferred intervention—while giving limited attention to Deaf culture and identity—suggests a lack of balanced, client-centred counselling. This may reflect an implicit bias among some AUDs and STAs, where one intervention is promoted over others without fully exploring or presenting alternative communication options, such as embracing SASL or connecting with the Deaf community. Such partiality can undermine informed choice and fails to honour the diverse values and preferences of Deaf individuals and their families.

Several studies report that these professionals often advocate more strongly for spoken language than for sign language, presenting one-sided recommendations and advice to parents (Eleweke & Rodda, 2000; Li & Steunberg, 2003; Decker et al., 2012). For instance, Decker et al. (2012) conducted an online survey with 36 parents of children with hearing loss in the United States to explore the information they received at diagnosis and its perceived influence on their decisions. The study found that parents who opted for an oral communication approach tended to receive information primarily from sources aligned with the medical model of hearing, such as STAs.

Conversely, parents who incorporated sign language were more likely to gather information from a broader range of sources, including friends, family members, and commercial agencies. While parents reported that their primary influences were their own judgment and their co-parent's opinions, Decker et al (2012) raised the possibility that parents might have internalized the views of professionals. As a result, they may have perceived their decisions as independent rather than shaped by external influences. To this end, Graval and O'Gara, (2003) emphasize the importance for professionals to provide objective, clear, and comprehensive information, enabling parents to access the resources they need to make informed decisions tailored to their child's and family's unique needs.

Historically, practitioners in audiology and speech therapy have predominantly viewed deafness as a condition requiring intervention (Morgan & Kaneko, 2020; Szarkowski & Brice, 2018). However, the rise of Deaf-rights movements and increased recognition of Deaf culture have introduced a sociocultural perspective. This perspective frames deaf individuals as a linguistic and cultural minority rather than solely as people with a disability. Researchers argue that Deafness should be understood as a unique identity deserving respect, recognition, and support (Penn & Andrade, 2017; Morgan & Kaneko, 2020; Szarkowski & Brice, 2018). Locally and internationally, there is a plethora of studies documenting the tension between AUDs, STAs, and individuals who are Deaf (Panning, Lee et al., 2021; Davies, 2015; Jean et al., 2018; Moroe, 2018). Fundamentally, the tensions stem from two major factors: i) the lens through which AUDs, STAs and the Deaf community view hearing loss (medical perspective versus a cultural-linguistic perspective and ii) the mode of communication (oral vs manual). In their training and practice, AUDs and STAs approach 'hearing impairment' as a condition to be "fixed" through technologies such as hearing aids and cochlear implants (Moroe, 2019). In contrast, the Deaf community views deafness as a difference in human experience rather than a disability needing to be fixed (Jones, 2002). Therefore, it can be argued that the differing 'ideologies' between AUDs/STAs and Deaf people may create tension as both parties present with contrasting views.

In his article *"Defending Deaf Culture: The Case of Cochlear Implants,"* Sparrow (2005) describes cochlear implants as assistive devices designed to "cure" or "fix" deafness by bypassing the outer ear and electrically stimulating the auditory nerve. He argues that the use of cochlear implants, particularly in young children, represents an attack on Deaf culture. By enabling access to spoken language, cochlear implants shift focus away from the signed languages used within the Deaf community. Sparrow (2005) views the advocacy for cochlear implants by AUDs and STAs as conflicting with the cultural perspective on Deafness, likening it to cultural erasure. He recalls that, in the 1980s and 1990s, members of the Deaf community mobilized and protested against cochlear implants, especially for young children who are unable to give consent. Sparrow (2005) further critiques the inability of many AUDs and STAs to communicate in sign language, arguing that this undermines efforts to preserve Deaf culture and its unique identity. This perspective is supported by Bauman and Murray (2009), who found that the lack of sign language proficiency

among healthcare professionals creates significant barriers for Deaf individuals in accessing healthcare services.

Access to healthcare is a fundamental human right, yet communication barriers persist for Deaf individuals (United Nations, 1948; UN General Assembly, 1966). Kuenburg et al. (2016) emphasizes that 'access' encompasses not just healthcare but also information, communication, education, and culture. Consistently, studies highlight that patients who are d/Deaf face communication challenges when accessing healthcare services, often relying on inadequate modes of communication such as writing or texting (Chaveiro et al., 2009; Scheier, 2009; Steinberg et al., 2006; Sheppard, 2014; Sheppard & Badger, 2010). For instance, Kritzinger et al. (2014) found that communication barriers in South Africa often leave Deaf patients without a clear understanding of their diagnosis or treatment. This lack of comprehension can have serious implications, including feelings of frustration, confusion, and disempowerment. As a result, Deaf patients may leave the consulting room feeling demotivated or discouraged, reducing the likelihood that they will return for follow-up care or seek further medical assistance when needed. Such outcomes highlight the critical importance of accessible communication and culturally responsive healthcare provision. Conversely, research indicates that Deaf individuals report better healthcare experiences when interpreters are present or when healthcare providers use sign language (Tamaskar et al., 2000; Barnett et al., 2011; Fellinger et al., 2012).

South African Sign Language Interpreters

Effective communication between healthcare providers and patients is essential for meaningful interventions (Zulu et al., 2017). For d/Deaf individuals, limited access to health care literacy and low English proficiency complicates interactions. Nutbeam (2000) reports that health care literacy refers to an individual's ability to obtain, process, and understand basic health information and services needed to make appropriate health decisions. It encompasses not only the ability to read and comprehend medical information (like prescriptions, consent forms, or appointment slips) but also the capacity to navigate the healthcare system, communicate effectively with providers, and make informed choices about one's health (Nutbeam, 2000).

According to McCay (1988, as cited in Ubido et al., 2002), qualified sign language interpreters are vital for ensuring effective communication. Sign language interpreters bridge communication gaps by using both spoken language and SASL (Zulu et al., 2017). In South Africa, interpreter training is available at select universities, and accreditation is managed by the South African Translators Association. However, there are currently only seven accredited SASL interpreters nationwide, highlighting a significant gap (SASLINC, 2021). However, it is important to note that, in many instances, unqualified interpreters—such as family members or CODAs—often step in to facilitate communication between health professionals and Deaf patients (Moroe, 2019). While these individuals may help bridge immediate communication gaps, their involvement may raise ethical and practical concerns. However, it is important to note that their ability to interpret is often grounded in personal experience and cultural familiarity rather than formal training. Therefore, their deep-rooted connection to Deaf culture and identity can make them more attuned to the nuances of Deaf communication compared to interpreters who are trained in Sign Language but lack cultural understanding.

Studies show that Deaf individuals often face challenges in public spaces like hospitals, courts, and police stations without interpreters, leading to violations of their dignity and health rights (Heap & Morgan, 2004; Haricharan et al., 2013). An on-call interpreting service has been proposed to address these barriers and reduce reliance on informal interpreters, who often lack the training required for accurate translation (Hussey, 2012). To further support accessible communication, technological innovations have also been introduced. For example, in 2009, the Convo platform developed the Convo SASL app, a video relay service designed to facilitate real-time interpretation between Deaf and hearing individuals. The app enables Deaf users to communicate with hearing individuals via professional SASL interpreters through video calls, thus promoting autonomy and reducing dependence on in-person interpreters. Such digital solutions not only expand access to interpreting services but also empower Deaf individuals to engage more confidently in healthcare, education, and everyday interactions.

Globally, the use of qualified interpreters has been shown to significantly improve patient satisfaction, enhance clinical outcomes, and reduce misunderstandings between healthcare providers and patients with communication barriers. For example, in Australia, the use of Aboriginal interpreters led to better communication, reduced power imbalances, and higher patient

satisfaction (Kerrigan et al., 2021). However, in South Africa, the shortage of interpreters and healthcare providers' lack of SASL proficiency led to miscommunication, mistrust, and avoidance of healthcare services by d/Deaf individuals (Kritzinger et al., 2014).

Addressing Language Barriers in Healthcare

Language barriers in healthcare often result in misdiagnosis and poor healthcare outcomes. Studies indicate that consultations conducted in the patient's native language improve communication and foster trust (Levin, 2006; Stewart et al., 2000). In South Africa, the linguistic mismatch between healthcare providers and patients, especially in resource-poor areas, exacerbates health disparities (Van den Berg, 2016). While informal interpreters, such as family members, are commonly used, they often introduce errors and compromise confidentiality (Hussey, 2012). Trained interpreters with knowledge of medical terms and cultural sensitivity are essential for bridging these gaps (Van den Berg, 2016). However, South Africa's limited resources and historical language inequalities pose challenges to implementing widespread interpreter services (Mophosho, 2018).

To address these issues, healthcare providers must prioritize cultural competence, effective communication, and patient participation in care. Ensuring access to trained interpreters and integrating language training into medical education could significantly improve health outcomes for d/Deaf individuals and other linguistically diverse groups.

CHAPTER 3: THEORITICAL FRAMEWORK

This chapter outlines the conceptual framework that guided the study. A conceptual framework serves as a lens through which the research problem is examined, helping to connect theoretical foundations with empirical inquiry. It provides a structured way of understanding the relationships between key concepts and variables relevant to the study—in this case, the perspectives of AUDs and STAs on deafness, Deaf culture, SASL, and service provision.

CULTURAL COMPETENCE FRAMEWORK

In today's increasingly multicultural societies, healthcare professionals are encountering patients from diverse cultural and ethnic backgrounds more frequently (Seeleman et al., 2009). Health disparities among racial, ethnic and minority groups are well-documented, with these populations disproportionately affected by inequities rooted in social determinants of health (Betancourt et al., 2003; Gómez et al., 2021; Lavizzo-Mourey et al., 2021). Factors such as socio-economic disadvantages, limited educational opportunities, occupational hazards, and restricted access to healthcare services create significant barriers to equitable health outcomes. The over-representation of minority groups among the uninsured, further exacerbates these disparities by limiting access to preventive care, timely diagnoses, and effective treatment (Betancourt et al., 2003).

These inequalities also permeate the healthcare system, where disparities in the equality of care persist (Betancourt et al., 2003). Research highlights inequitable access to diagnostics, treatments, and preventive measures, for minority populations, even when socioeconomic and insurance-related factors are accounted for (Betancourt et al., 2003). Additional influences—such as variations in health beliefs, communication barriers, care preferences, and adherence to prescribed treatments—shape patient-provider interactions and contribute to unequal health outcomes (McQuaid, 2018; McQuaid & Landier, 2018; Shamsi et al., 2020).

To address these challenges, cultural competence has emerged as a vital strategy for reducing healthcare disparities. A culturally competent healthcare system integrates an understanding of cultural and social influences on health, assesses cross-cultural dynamics, and

tailors services to meet the unique needs of diverse populations (Seeleman et al., 2009). Cultural competence is broadly defined as a combination of knowledge, attitudes, and skills that enable healthcare professionals to provide effective care in diverse settings (Seeleman et al., 2009).

The changing demographics and persistent health disparities highlight the need to prioritize cultural competence in healthcare delivery. This has led to the development of various service delivery models to improve the quality of care in multicultural contexts. Medical education, in particular, has emphasized the importance of equipping healthcare professionals with the skills to navigate cultural diversity effectively. For instance, in several countries, including the UK, Sweden, and the Netherlands, medical curricula have incorporated educational objectives addressing culture and ethnicity their medical faculties (Dogra et al., 2005; Van Wieringen et al., 2003; Wachtler & Troein, 2003). However, practical implementation remains challenging due to fragmented teaching and uncertainty among educators and curriculum developers about appropriate content (Dogra, 2007; Seeleman et al., 2009).

Cultural Competence: A Conceptual Framework for Teaching and Learning

Seeleman et al. (2009) developed the *Cultural Competence: A Conceptual Framework for Teaching and Learning*, translating abstract concepts into practical guidance. The framework is built on two key assumptions: (i) cultural competence extends beyond cultural issues to include epidemiological differences, social contexts, and the influence of prejudice; and (ii) medical students are not culturally or ethnically neutral, as they are influenced by their own cultural backgrounds and are shaped by predominantly 'White' and 'Western' learning environments (Seeleman et al., 2009).

This framework identifies seven core competencies essential for cultural competence in medical education (Seeleman et al. 2009):

1. **Knowledge of epidemiology and disease manifestation in various cultural and ethnic groups:** Understanding how symptom presentation and disease prevalence vary among cultures and ethnic groups is crucial for accurate diagnoses.

2. **Knowledge of differential treatment effects**: Recognizing genetic differences that affect drug metabolism, while avoiding reinforcement of racial stereotypes, is important for effective treatment.
3. **Awareness of how culture shapes individual behaviour and thinking:** Both the patients and doctors' cultural frames of reference shape healthcare interactions; awareness of these influences enhances doctor-patient relationships.
4. **Awareness of social contexts in which specific ethnic groups live**: Understanding social determinants of health, such as socioeconomic status and discrimination, is vital for interpreting patient behaviours and providing equitable care.
5. **Awareness of one's own prejudices and tendency to stereotypes**: Recognizing and addressing personal biases is essential to prevent negative impacts on patient care.
6. **Ability to transfer information in a way the patient can understand and to know when external help with communication is needed**: Clear communication to prevent misdiagnoses and noncompliance, especially with patients facing language and cultural barriers. Training in intercultural communication and the constructive use of medical interpreters can significantly improve care for patients with limited language proficiency.
7. **Ability to transfer information in a way the patient can understand and to know when external help with communication is needed**: Rigid adherence to standard practices can harm doctor-patient relationships. Doctors must demonstrate flexibility and creativity to address unfamiliar situations and cultural preferences, fostering people-centred care that patients value and appreciate.

This framework is primarily focused on the training of medical students and lays a good foundation for healthcare practitioners in training. However, a key limitation of this framework is that it does not address cultural competence in healthcare service delivery beyond the training phase.

Campinha-Bacote's Framework of Cultural Competence in the Delivery of Healthcare Services

To specifically address service delivery, Campinha-Bacote (1998) developed the *framework of cultural competence in the Delivery of Healthcare Services* to offer a comprehensive framework

for guiding the development and implementation of culturally responsive healthcare services. The Campinha-Bacote's framework of cultural competence in the Delivery of Healthcare Services views cultural competence as the ongoing process in which the healthcare provider continuously strives to achieve the ability to effectively work within the cultural of the client (individual, family, community) (Campinha-Bacote, 2002). The model requires healthcare professionals to see themselves as becoming culturally competent. This ongoing process involves the integration of cultural awareness, cultural knowledge, cultural skills and cultural encounters, and cultural desire. This framework assumes (Campinha-Bacote, 2002):

1. Cultural competence is a process, not an event.
2. Cultural competence consists of five constructs: cultural awareness, cultural knowledge, cultural skill, cultural encounters, and cultural desire.
3. There is more variation within ethnic groups than across ethnic groups (intra-ethnic variation).
4. There is a direct relationship between the level of competence of health care providers and their ability to provide culturally responsive health care services.
5. Cultural competence is an essential component in rendering effective and culturally responsive services to culturally and ethnically diverse clients.

The development of Campinha-Bacote's *Cultural Competence in the Delivery of Healthcare Services* model began during her undergraduate nursing studies in 1969, amidst racial tensions that spurred her interest in cultural and ethnic groups (Campinha-Bacote, 2002). As a second-generation Cape Verdean, she explored cultural diversity further through her advanced nursing degrees and clinical background in psychiatric nursing, integrating insights from transcultural nursing, medical anthropology, and multicultural counselling. Influenced by the works of Leininger et al. (1987) in transcultural nursing and Pedersen (1988) in multicultural development, she combined these fields to create the foundational constructs of her model (Campinha-Bacote, 2002).

The framework is centred on five interconnected constructs which are essential and must be addressed to achieve true cultural competence.

1. **Cultural Awareness**: Involves self-examination of one's cultural and professional background to recognize biases, prejudices, and assumptions. This awareness helps prevent cultural imposition, where a provider imposes their own beliefs and values on others.
2. **Cultural Knowledge**: Focuses on acquiring knowledge about different cultural and ethnic groups, including their health-related beliefs, disease prevalence, and treatment efficacy. This process emphasizes understanding a client's worldview, variations in disease incidence, and ethnic pharmacology, while recognizing that individuals are unique and not stereotypes of their culture.
3. **Cultural Skill**: Refers to the ability to collect culturally relevant data and perform culturally informed physical assessments. Providers must learn to conduct cultural assessments systematically, understanding physical and biological variations across ethnic groups to deliver accurate care.
4. **Cultural Encounters**: Encourages healthcare providers to engage in direct cross-cultural interactions to refine their understanding and avoid stereotyping. Interactions should account for intra-ethnic variation and linguistic needs, often requiring trained interpreters to ensure effective communication and accurate data collection.
5. **Cultural Desire**: Represents the motivation to actively engage in cultural competence out of genuine care and commitment, rather than obligation. It involves openness, flexibility, and a passion for lifelong learning, often referred to as cultural humility.

Discussion of the two cultural competence frameworks

While there are differences in the target audience, level of application, and core competencies/constructs, both the Seeleman et al. (2009) and Campinha-Bacote (1998) frameworks aim to enhance cultural competence in healthcare settings to improve the quality of care for patients from diverse backgrounds. The key similarities of these frameworks include:

1. **Ongoing process of cultural competence:** Both frameworks emphasize that cultural competence is not a static achievement but an evolving process that necessitates constant self-reflection and learning.

2. **Self-Awareness:** Both frameworks highlight the importance of healthcare providers reflecting on their own biases, prejudices, and assumptions. Seeleman et al. (2009) stress the need for awareness of how culture shapes individual behaviour, while Campinha-Bacote (1998) integrates cultural awareness into a broader process of self-examination, addressing both personal and professional biases.
3. **Cultural Knowledge**: Both frameworks emphasize the necessity for healthcare providers to acquire knowledge about various cultural and ethnic groups, including their health beliefs, practices, and disease patterns. Seeleman et al. (2009) focus on understanding disease manifestation across different cultural groups, whereas Campinha-Bacote (1998) expands this to include ethnic pharmacology and health-related beliefs.
4. **Cross-Cultural Interactions:** Both frameworks recognize the importance of direct cross-cultural interactions to refine understanding and avoid stereotypes. Campinha-Bacote (1998) specifically highlights the significance of cultural encounters, while Seeleman et al. (2009) stress the importance of understanding the patient's cultural frame of reference during healthcare interactions.

The key difference in these frameworks is the inclusion of 'Cultural Desire'. While Seeleman et al. (2009) do not explicitly address cultural desire, their framework implicitly requires healthcare providers to be open to understanding cultural influences on care. Campinha-Bacote (1998), however, specifically identifies 'Cultural Desire' as a core construct, emphasizing the need for genuine care and motivation to learn and engage with diverse cultures.

In terms of focus, Seeleman et al., (2009) provides a more educationally focused framework for teaching cultural competence, outlining competencies that medical students should acquire to prepare them for culturally diverse healthcare settings. Campinha-Bacote (1998), on the other hand, provides a service delivery-focused framework that emphasizes the continuous development of cultural competence for healthcare providers in practice, highlighting the ongoing process of learning and personal growth.

Relevance of the conceptual framework to the current study

The cultural competence frameworks discussed above are relevant to the current study, which is concerned with AUDs and STAs, their undergraduate training and their use of SASL as a service delivery tool in the Deaf community. The relevance of these frameworks includes:

Ongoing Process of Cultural Competence:

AUDs and STAs need to continuously engage in self-reflection and learn about the diverse needs and experiences of d/Deaf individuals, who may come from various cultural backgrounds, including those with different communication preferences (e.g., sign language, spoken language, or assistive technologies). Recognizing cultural competence as a process ensures that AUDs and STAs adapt and improve their service delivery over time, aligning with the dynamic nature of healthcare needs in the Deaf community.

Self-Awareness:

The focus on self-awareness in both frameworks encourages AUDs and STAs to reflect on their own biases, assumptions, and attitudes toward d/Deaf individuals. For example, AUDs and STAs might hold preconceived notions about d/Deafness, communication preferences, or the medical vs. cultural model of deafness. By integrating self-awareness into practice, AUDs and STAs can improve their interactions with d/Deaf patients, ensuring they provide care that is respectful and individualized, rather than based on generalized assumptions.

Cultural Knowledge:

Both frameworks stress the importance of acquiring knowledge about different cultural and ethnic groups. For AUDs and STAs, this translates into understanding the unique needs, health beliefs, and communication styles of the Deaf community. This could include an awareness of the medical, cultural, and linguistic aspects of deafness and hearing loss, as well as knowledge about sign language, communication tools, and cultural practices within the Deaf community. By fostering cultural knowledge, AUDs and STAs can offer more appropriate and effective care tailored to the preferences and needs of d/Deaf individuals.

Cross-Cultural Interactions:

Direct interaction with diverse populations is essential to refine understanding and avoid stereotypes. In the context of audiology, this means engaging with Deaf individuals in a culturally sensitive manner, taking into account their communication preferences, cultural background, and specific needs. Both frameworks highlight the importance of this kind of interaction, ensuring AUDs and STAs create inclusive and welcoming environments for Deaf individuals.

Cultural Desire:

The inclusion of cultural desire in Campinha-Bacote's (1998) framework emphasizes the importance of intrinsic motivation to learn about and respect cultural differences. This is particularly relevant for AUDs and STAs working with the Deaf community. AUDs and STAs should have a genuine desire to understand the cultural experiences of Deaf individuals, which could involve a commitment to learning about Deaf culture, sign language, and specific healthcare needs of the community. This cultural desire will lead to better communication, more effective care, and an improved healthcare experience for deaf patients.

Educational vs. Service Delivery Focus:

The difference in focus between Seeleman et al., (2009) and Campinha-Bacote (1998) is also significant for this study. Seeleman et al., (2009) provides a more educational framework, which could be beneficial for training AUDs and STAs during their education to ensure they are prepared to serve diverse populations, including the Deaf community. On the other hand, Campinha-Bacote (1998) focuses on service delivery, emphasizing the continuous development of cultural competence in practice. This framework could help AUDs and STAs working in the field maintain and improve their cultural competence as they gain more experience in serving the Deaf community.

In essence, integrating both frameworks into this study highlights the need for AUDs and STAs to develop cultural competence as an ongoing process (from training to service delivery), focused on both self-awareness and the acquisition of specific knowledge and skills to improve service delivery to the Deaf community and other minority cultures. The emphasis on 'Cultural Desire'

aligns with the need for AUDs and STAs to be genuinely motivated to understand and engage with the Deaf community, ensuring that they deliver more effective, culturally sensitive care.

Rationale for the Study

There is limited research on the use of SASL by AUDs and STAs as a communication tool for service delivery to the Deaf SASL users. This is concerning because the training of AUDs and STAs includes an introductory course/module on SASL and South African Deaf Culture and Community. As a result, AUDs and STAs are expected to have a basic understanding of SASL and be equipped to communicate reasonably effectively with d/Deaf patients and family members in SASL and in so doing provide services. However, in practice, there is little evidence documenting the extent to which AUDs and STAs played in making communication a pleasant experience for the Deaf community by using sign language. Instead, a substantial body of research highlights the communication challenges faced by individuals with hearing loss in accessing healthcare services, including audiological services (Kritzinger et al., 2014; Masuku et al., 2021). For instance, studies by Kritzinger et al. (2014), Kuenburg et al. (2015), and Masuku et al. (2021) highlight the significant communication barriers encountered by Deaf individuals when seeking healthcare. Moreover, both globally and locally, there is a lack of research examining the role of AUDs and STAs in improving communication with the Deaf community. This gap may be attributed to the historically strained relationship/ tension between AUDs/STAs and the Deaf community, as highlighted by Moroe (2018) in her study, 'Why Fix It If It Is Not Broken: The Role of Audiologists in Families of Hearing Children Born to Deaf Parents.' Moroe (2018) highlights how AUDs/STAs are often viewed with suspicion by members of the Deaf community. This tension largely stems from the profession's alignment with the medical model of deafness, which tends to prioritise "fixing" hearing loss through technological interventions such as hearing aids and cochlear implants, rather than recognising and valuing Deaf identity, culture, and Sign Language. Moroe (2018)'s findings suggest that Deaf individuals and families may perceive AUDs and STAs as undermining Deaf culture and failing to respect the linguistic and cultural preferences of Deaf people. This has contributed to mistrust, miscommunication, and a lack of collaboration between professionals and the community they aim to serve.

To contextualise this study, as part of my undergraduate training, I conducted a study on the communication experiences of lecturers, administrative staff and general workers who are Deaf at a South African university that offers training for AUDs and STAs. During data collection, despite my training in SASL and South African Deaf Culture, I enlisted the services of a SASL interpreter. This decision surprised potential participants, who were aware of my background as a student STA. Some participants, particularly SASL tutors, declined to participate, expressing disappointment that SASL-trained STA students did not value or prioritise using SASL when communicating with Deaf individuals. This experience prompted me to reflect on my own perceptions of SASL, the Deaf community, and my discomfort with using SASL. Additionally, I observed that, apart from some AUDs and STAs involved in aural rehabilitation at schools for Deaf learners, SASL is not routinely used by AUDs and STAs when interacting with Deaf individuals or SASL users.

This observation raised a critical question: Why do STAs and AUDs, who are trained to advocate for and provide optimal services to Deaf individuals as part of their professional scope, fail to routinely use SASL in their interactions with the Deaf community? One possible explanation is that AUDs and STAs may be unaware of their own biases and may unintentionally perpetuate the medical view of deafness - viewing it as a condition to be fixed rather than recognizing SASL as legitimate and valuable language. Knight (2015) and Sager (2019) suggest that the limited use of SASL among AUDs and STAs reflects their attitudes toward the Deaf community and sign language. As health professionals, AUDs and STAs, who are typically hearing individuals - may perceive deafness as a disability rather than as a cultural identity SASL a unique mode of communication.

It is within this context that the current study was conceptualized. This research aims to explore the biases, views, opinions and perceptions of AUDs and STAs regarding the use of SASL as a tool for service delivery to the Deaf community and SASL users. In South Africa, there is a growing call for AUDs and STAs to consider the language and culture of their Deaf clients in their service provision (Khoza-Shangase & Mophosho, 2018). However, this call is often framed in the context of the 11 official languages, to the exclusion of SASL. The perceived failure of AUDs and

STAs' to routinely use SASL contradicts their professional scope, which mandates advocacy for the rights of individuals with communication impairments. In fact, one could argue that by not using SASL, AUDs and STAs are infringing on the rights of Deaf individuals to receive medical attention in their preferred language, as guaranteed by the South African Constitution. The former Deputy Minister in the Presidency Department of Women, Youth, and Persons with Disabilities, Prof Hlengiwe Mkhize, emphasized that SASL is a right, not a privilege, and should be the primary mode of communication with Deaf individuals (Bangani, 2020). Despite this, little progress has been made in ensuring that SASL is more accessible in public institutions.

The perceived lack of SASL use among AUDs and STAs highlights a disconnect between their training and its application in practice. This study aims to reflect on the training of AUDs and STAs and to explore whether unconscious biases are influencing service delivery. Understanding this complexities/tension is crucial to addressing gaps in service provision and improving communication between health professionals and the Deaf community.

Research question:

What are the perceptions, views and biases of AUDs/STAs regarding the use of SASL as a tool of service delivery when working with SASL users/ Deaf people?

Aims and objectives

- To explore STAs and AUDs' knowledge and perceptions regarding Deaf culture and SASL.
- To understand the motivations of STAs and AUDs for using or not using SASL when providing services to Deaf individuals or SASL users.
- To evaluate the confidence levels of STAs and AUDs in delivering services using SASL.
- To explore the perspectives of STAs and AUDs on the tensions between professionals in their fields and the Deaf community.

CHAPTER 4: METHODOLOGY

This chapter outlines the research design and methodological approach employed in this study. It details the procedures followed to explore the knowledge, attitudes, and perceptions of AUDs and STAs regarding deafness, Deaf culture, and SASL. The chapter begins by presenting the research paradigm and design, followed by a description of the study population, sampling methods, data collection tools, and procedures. Ethical considerations and data analysis strategies are also discussed.

Research design

A mixed research design incorporating both quantitative and qualitative approaches was employed in this study. This approach was chosen because it allows for the collection, analysis, interpretation, and integration of both types of data, enabling a more comprehensive examination of the research problem. Furthermore, it complements and compensates for weakness or limitations of each approach (Bryman, 2006; Greene et al.,1989). A key advantage of mixed research is its ability to present findings in both narrative and numerical forms (Subedi, 2016). Moreover, Tariq and Woodman (2010) highlight that this design provides a more robust understanding of the research question compared to using qualitative or quantitative methods in isolation. By integrating both approaches, the study leverages their respective strengths while counterbalances their weakness (Tariq & Woodman, 2010).

This study specifically followed a two-phased explanatory mixed methods design, where the quantitative phase preceded the qualitative phase (Baskerville & Pries-Heje., 2010). In phase one, quantitative data were collected through a survey distributed via professional platforms such as the South African Association of Audiologists (SAAA), National Student Speech-Language-Hearing Association (NABSLHA), and relevant social media platform (e.g. Facebook). In phase 2, a subset of Phase 1 participants were recruited for qualitative interviews to explore their perceptions in greater depth. These interviews aimed to elaborate on survey responses as recommended by Leedy et al (2015).

Participants

Sampling strategy, inclusion criteria and sample size

A purposive sampling strategy was employed to select participants based on their knowledge of the subject matter. This method was chosen to ensure a representative sample of the target population (Babbie, 2008). This method was chosen to specifically target AUDs and STAs practicing in South Africa.

Participants were eligible if they met the following criteria:

- Qualified AUDs and STAs working in public hospitals, schools, academia, or private practices.
- Studied at South African universities where SASL was offered at an undergraduate level.
- Registered with the HPCSA as AUDs or STAs

Exclusion Criteria:

- Individuals still undergoing training were excluded from the study.

Sample Size:

In Phase 1**,** a total of 24 respondents participated in the study. Of these, 19 were female**,** and 5 were male**.**

Table 1: Demographic profile of participants in phase 1

	Category	**Sample n=24**	**Percent = 100**
Total (n)		**n=24**	**100**
Sex	Male	5	20.8
	Female	19	79.2
Age	22-30 years	17	70.8
	31-40 years	5	20.8
	41-50 years	2	8.3
Total (n)		**(n=24)**	
Race	Black	18	75.0

	Coloured	1	4.2
	Indian	1	4.2
	White	4	16.7
Total (n)		**(n=24)**	**%=100%**
Profession	AUDs	6	25.0
	STAs	18	75.0
Total (n)		**(n=24)**	**%=100%**
Type of university	Sefako Makgatho University	5	20.8
	University of Cape Town	3	12.5
	Wits University	10	41.7
	University of Pretoria	6	25.0
Total (n)		**(n=24)**	**%=100%**
Years of service	1-5 years	16	66.7
	6-10 years	5	20.8
	11-20 years	3	12.5
Total (n)		**(n=24)**	**%=100%**

In phase 2, a total of 12 AUDs and STAs participated. This included seven females and five males, recruited based on their availability and willingness to participate. The participants were employed in diverse settings, including public hospitals, educational institutions, academia, and private practice.

Table 2: Demographic profile of participants in phase 2

Participant	Sex	University	Graduation year	Profession	Years of experience	Interview mode	Work Setting
1	Female	Wits University	2020	STA	2 years	Face to face	Hospital Deaf school SID school
2	Male	Sefako Makgatho University	2014	STA	7 years	Face to face	Public hospital Private practice
3	Female	Wits University	2020	STA	2 years	Online	Public hospital setting
4	Female	University of the Witwatersrand	2019	STA	3 years	Online	Public hospital Private practice Deaf school
5	Female	Wits University	2019	STA	3 years	Online	Public hospital

							SID public school Autism public school
6	Male	Sefako Makgatho University	2020	STA	2 years	Online	Private practice Public hospital
7	Male	Sefako Makgatho University	2017	STA	5 years	Online	Private practice Public hospital
8	Male	University of Cape Town	2019	AUD	3 years	Online	Public hospital Private practice
9	Female	Wits University	2021	AUD	1 year	Online	Public hospital
10	Female	Wits University	2020	AUD	2 years	Online	Public hospital Private practice
11	Male	University of Cape Town	2019	AUD	1 year 9 months	Online	Public setting
12	Female	Wits University	2021	AUD	1 year	Online	Public setting

Data collection tools

Phase 1 – Survey

In the first phase, data were collected through a survey (Appendix D). According to Leedy et al (2015), survey research is a method designed to determine the distribution of characteristics in a population, as well as the frequency, and incidence of a specific phenomenon in a study. Biemer and Lyberg (2003) highlight that surveys allow researchers to obtain higher response rates, offer opportunities for clarification, and are less time-consuming compared to other data collection methods. Thus, for this study, a survey was chosen as it facilitated broader participant reach and a higher response rate. The online platform SurveyMonkey was used to design and distribute the questionnaire. Survey monkey is an online platform that ensures confidentiality and data protection through enhanced security and encryption (Varela et al., 2016). Additionally, this platform minimises input and coding error, speeds up data collection, and reduces costs (Varela et al., 2016). The survey consisted of seven open-ended questions and twelve closed-ended questions. It was divided into three sections, namely, demographics, training on SASL, as well as clinical experience in relation to communication with the Deaf community/SASL users.

Phase 2 – Interviews

The second phase involved semi-structured interviews (Appendix C). Longhurst (2003) defines semi-structured interviews as an interactive process where the researcher elicits information

through guided questions. These interviews allow participants to explore issues they consider significant, making them particularly useful in studies with time constraints (Cohen & Crabtree, 2006). Additionally, semi-structured interviews facilitate comparative data analysis, enabling participants to express their perspectives in their own words (Cohen & Crabtree, 2006).

For this study, the open-ended nature of the questions helped uncover AUDs and STAs perceptions of using SASL as a tool for service delivery (Cohen & Crabtree, 2006). The interviews followed a deductive approach, informed by the findings from phase 1. Leedy et al (2015) describe deductive reasoning as a process that moves from general theories to specific applications, aiding in hypothesis generation and theory testing. The interview schedule was self-developed based on Phase 1 findings and included three sections: (1) five demographic questions, (2) thirteen questions on SASL training, and (3) twelve questions on clinical expectations regarding communication with the Deaf community and SASL users (in Appendix D).

The interviews were conducted in English, lasted approximately 30–45 minutes, and were held either online (i.e., via MS teams/Zoom) or in person. Participants were given the option to choose their preferred language for the interview, but all opted for English, simplifying the transcription process. To ensure accuracy and consistency, all interviews were audio-recorded. Bradford and Cullen (2013) emphasize that audio recordings allow researchers to revisit the original data, ensuring accurate data capture, consistent analysis, and reduced bias.

Data collection

Procedure:

Before commencing this study, permission was obtained from the Human Research Ethics Committee (Non-medical) Protocol number: H22/03/17 (Appendix F).

Following this, professional platforms such as SASLHA, NABSLHA, SAAA and Facebook were approached to act as gatekeepers, facilitating the distribution of the online survey to all AUDs and STAs registered with their respective organisation.

Phase 1

In the first phase, an online survey was distributed through professional platforms, including SAAA, NABSLHA and SASLHA. After reading the information letter (Appendix A), AUDs and STAs who were still interested in participating in the study were required to click the provided link, which directed them to the survey. The survey consisted of open and closed-ended questions and took 15-20 minutes to complete. At the end of the survey, participants were asked whether they would be willing to take part in phase 2 of the study. Those interested in participating were asked to provide their contact details so that they could be contacted for the next phase of the study.

Phase 2

Participants who provided their contact details in phase 1 were contacted and invited to take part in Phase 2. In this phase, one-on-one interviews were conducted either face-to-face or online between February and March 2023. The interview schedule was developed based on the responses obtained in Phase 1. Due to the impact of COVID-19, most interviews were conducted via online platforms such as Zoom, and Microsoft Teams. However, face-to-face interviews were conducted where conditions allowed. Online interviews offered the advantage of audio recording (Janghorban et al., 2014) and enabled the researcher to reach participants residing in other provinces. Additionally, online platforms allowed the participants to choose a time convenient for them, which increased the accessibility and flexibility of the study (Janghorban et al., 2014). To ensure participation, participants were reimbursed for their data usage up to 1GB. According to Fry et al (2005), providing monetary value or incentives is an effective strategy for increasing response rate, as it acknowledges the busy schedule of professionals and encourages participation. All interviews were conducted in English in line with the participant's preferences. Table 3 below provides a detailed description of the interviews conducted.

Table 3: Details of the interviews: Phase 2

Participant	Via	Date	Length of interview
1	Face to face	03 February 2023	35:40 minutes
2	Face to face	10 February 2023	40:31 minutes

3	Zoom	11 February 2023	31:15 minutes
4	Zoom	12 February 2023	39:34 minutes
5	Zoom	22 February 2023	33:17 minutes
6	Zoom	24 February 2023	40:44 minutes
7	Zoom	26 February 2023	30:23 minutes
8	Zoom	26 February 2023	34:40 minutes
9	Zoom	03 March 2023	33: 19 minutes
10	Zoom	04 March 2023	32: 41 minutes
11	Zoom	10 March 2023	37:15 minutes
12	Zoom	11 March 2023	32: 28 minutes

Data analysis:

Phase 1: Quantitative data analysis

Descriptive and inferential statistics were used to analyse the quantitative data. According to Guest (2013) databases are converted into smaller, more understandable sets of numbers. This is achieved using measures of central tendency such as the mean, median and mode, as well as percentages, frequencies, and range. In this study, tables and percentages were used for data analysis. According to Goodwill (2009), inferential statistics allow the researcher to draw conclusions from the sample and apply these findings to a wider population.

In this study, inferential statistics were used to explore the relationships between variables and draw conclusions beyond the immediate data set. Unlike descriptive statistics, which summarize and describe data, inferential statistics allow researchers to make generalizations about a population based on a sample (Field, 2018). By using inferential statistics, this study aimed to determine whether observed patterns in SASL training, professional confidence, and practical engagement were statistically significant and could be applied to broader groups of STAs and AUDs. The Chi-Squared (χ^2) test for independence was chosen as the primary statistical method because it is particularly effective in analyzing categorical data—where responses are divided into distinct groups (McHugh, 2013). The Chi-Squared test for independence was used to assess

whether a significant association existed between variables. This test examines whether the observed frequencies in different categories differ from what would be expected by chance alone (Pallant, 2020).

Phase 2: Qualitative data analysis

Thematic analysis was employed to identify and report patterns within the data (Braun & Clarke, 2013). Thematic analysis provides detailed and complex accounts of participants' experiences and the realities they face (Braun & Clarke, 2006). Additionally, thematic analysis is a flexible approach that can be adapted to suit the study's needs, offering insight beyond individual experiences (Braun & Clarke, 2006).

In analysing data, these steps were followed as outlined by Braun and Clarke (2013).

1. Familiarizing with data - The researcher familiarized herself with all the data collected by transcribing the 12 interviews that she conducted. Although the process of transcribing these interviews was time-consuming, this process helped the researcher in familiarizing themselves with the data.
2. Generating initial codes - The researcher generated an initial set of ideas about what was in the data and what was interesting in them. The researcher then produced initial codes for each unit of analysis through the process called open coding. To develop a coding schedule, the researcher produced initial codes from the first three transcripts. The remaining transcripts were compared with initial codes generated from the first three transcripts. However, new codes were added to the schedule whenever they were identified at a later stage.
3. Searching for themes - After all the data was initially coded and collated, the researcher moved on to sorting different codes into potential themes. All relevant coded data extracts were collated within the identified themes. The researcher also used visual representation to sort out different codes into themes. A thematic map including a table of themes was developed. According to Braun and Clarke (2013), developing a visual representation of themes emerging from coded data is helpful to the researcher in understanding the relationship between codes and between themes as well as subthemes.

4. Reviewing the themes - This process involved refining the themes identified. During this process, the researcher discovered that some themes were really not themes because there was not enough data to support them. Other themes were combined to form one theme, and other themes were broken down into separate themes. According to Braun and Clarke (2013), reviewing themes helps the researcher to have a good idea of the different themes, how they fit together and what these themes tell about the data.
5. Defining and naming the themes - This involves a continuous process of defining and further refining the themes that will be presented in the next chapter as research findings. The researcher identified the meaning of each theme and determined the aspects of the data each theme captures.
6. Producing the report - This phase involves final analysis and a write-up of the research report. This was done after the researcher had fully worked out all the themes from the coded data extracts. According to Braun and Clarke (2013), the final write up should provide sufficient evidence of the themes within the data collected. This research study ensured that there are enough data extracts to demonstrate the prevalence of every theme identified.

Ethical considerations:

The following considerations were taken into account when conducting this study.

1. Informed consent: Participants were informed about the study's purpose, procedures and expectations before voluntarily agreeing to participate. Comprehensive details regarding their participation were outlined in the participant information sheets (Appendix A), ensuring transparency and informed decision-making.
2. Autonomy: To uphold participant autonomy, the researcher emphasised was entirely voluntary. Participants were explicitly informed that they could withdraw from the study at any time without penalty or loss of benefits. Although there were no direct or immediate advantages to participation, this was clearly communicated to maintain ethical integrity and transparency.

3. Beneficence: The principle of beneficence was upheld by providing participants with a detailed informed consent form which clearly outlined the study's objectives, potential risks, and any possible benefits. To prevent coercion, an incentive of 1GB of mobile data was offered in a manner that ensured participants did not feel pressured to participate.
4. Non-maleficence: Measures were taken to ensure participants experienced no harm, distress or undue risk during the study. If any participant required compensatory strategies or audiological intervention, appropriate referrals and recommendations were provided. Furthermore, participants retained the right to withdraw at any point without facing any adverse consequences.
5. Anonymity: To guarantee participant anonymity, no personally identifiable information, such as names or identity numbers, was collected. Instead, participants were assigned unique research numbers to ensure their identities remained confidential. Only the researcher and the research supervisor had access to this information
6. Confidentiality: Confidentiality was maintained through strict data protection measures. All research data were securely stored on a password-protected computer, with access restricted to the researcher and her supervisor.

Pilot study

A pilot study plays a crucial role in refining and modifying various aspects of a research study before its full implementation (In, 2017). It is a preliminary investigation conducted on a smaller sample to help identify potential issues with the planned research design (Van der Riet & Durrheim, 2006).

Prior to the main study, a pilot study was conducted to assess the survey's clarity, language and length. The researcher identified and approached four STAs and AUDs, with two participants per phase, who met the inclusion criteria. These participants reviewed the survey to ensure its appropriateness. Initial contact was made in person through professional networks, and those who expressed willingness to participate received a formal invitation via email. Before their involvement, the researcher confirmed that all participants met the inclusion criteria.

Phase 1: quantitative

For the online survey, one STA and one AUD participated in the pilot study. Based on their feedback, the following recommendations were made:

- In Section B, the first and third question were repeated.
- Furthermore, some questions required rewording to improve clarity and conciseness.

Phase 2:

In the qualitative phase, one STA and one AUD participated in the pilot study. Based on their feedback, the following modification was made:

- Several questions were too lengthy, requiring rephrasing for clarity and conciseness.
- It is important to note that the two AUDs and two STAs involved in the pilot study were excluded from the main study to prevent potential bias.

RELIABILITY AND VALIDITY

Phase 1: online survey

Testing validity and reliability of research is commonly associated with quantitative research, which allows generalisation to a larger population from the obtained sample (Golafshani, 2003). Reliability relates to the consistency of a research study, whilst validity (internal and external) is defined as identifying whether the research measures what it is intended to measure (Brink, et al 2005). Internal validity aims to establish a trustworthy cause and effect relationship between a treatment and an outcome (Golafshani, 2003). External validity on the other hand is concerned with how well an outcome of the study can be applied to other settings (Golafshani, 2003).

Additionally, to ensure the reliability and validity of the study, a pilot study was done prior to conducting the actual study. The pilot study helped to ensure that the research design was effective and feasible, confirming the study's significance and allowing for adjustments before proceeding with the main study. To ensure reliability and validity in this study, the researcher had an inclusion and exclusion criteria. Therefore, before participants participated in the study, the

researcher ensured that every participant met the inclusion criteria in order for the study to be conducted accurately. Furthermore, the survey questions remained the same for all the participants.

Bias

Shuttleworth (2009) explains that researcher bias occurs when participants are selected in a way that increases the likelihood of obtaining a particular result. To mitigate this risk, the researcher in this study adopted an inclusive approach during Phase 1, inviting all eligible STAs and AUDs to participate, provided they met the predefined inclusion criteria. This ensured a more representative sample and minimized the potential for selection bias, thereby enhancing the reliability and validity of the study's findings.

Phase 2: interviews

In qualitative research, the concepts of validity and reliability are often replaced by rigour, quality, and trustworthiness (Golafshani, 2003). To ensure trustworthiness in this study, the researcher implemented strategies such as credibility, dependability, confirmability, and transferability, which help establish the reliability and accuracy of the findings.

Credibility refers to the degree of confidence in the truth of the study findings (Golafshani, 2003). To enhance credibility, the researcher employed member checking, where participants reviewed and verified the accuracy of the findings. Additionally, prolonged engagement was used, ensuring the researcher spent sufficient time in the research setting to develop an in-depth understanding of the data. Triangulation was also applied by cross-verifying findings from multiple sources, strengthening the study's validity.

Transferability concerns the extent to which the research findings can be applied to other settings or populations (Golafshani, 2003). To enhance transferability, the researcher clearly defined the inclusion and exclusion criteria, ensuring that diverse perspectives were represented. Additionally, detailed descriptions of the research context were provided, allowing others to determine whether the findings could be applicable in different contexts.

Confirmability relates to the level of neutrality in a study, ensuring that findings are based on participants' responses rather than researcher bias (Golafshani, 2003). This was achieved through the use of direct participant quotes to support interpretations and ensure transparency. Furthermore, an audit trail was maintained, documenting all procedures used to check and recheck data throughout the study, thus minimizing potential bias.

Dependability focuses on the consistency of findings over time and whether the study could be replicated with similar results (Golafshani, 2003). To achieve dependability, the researcher conducted data coding at different time intervals to maintain consistency in the analysis process. Additionally, detailed documentation of the research process was kept, allowing for future researchers to replicate the study if needed.

CHAPTER 5: RESULTS

This chapter presents results from the quantitative and qualitative data obtained from AUDs and STAs regarding their usage of SASL when communicating with the Deaf community. The results are presented in two phases. The first phase presents results from the quantitative descriptive survey, while the second phase reports on the qualitative findings from the semi-structured interviews with a subsample from phase one. The qualitative interviews aimed to delve deeper into participants' perceptions, offering a more detailed exploration of their responses to the survey questions.

5.1. Phase 1: Context of the quantitative survey

In the quantitative survey, data were collected through an online survey using a web-based questionnaire (Survey Monkey). The questionnaire consisted of seven open-ended questions and twelve closed-ended questions about the usage of SASL. The closed-ended items in the questionnaire were mainly a mixture of multiple choice and dichotomous categorical questions and statements on a nominal categorical scale; multiple choice statements on the ordinal categorical scale (Likert scale); and multiple response statements on both nominal and ordinal categorical scales. The survey was divided into three sections that corresponded to the research questions established to achieve the objectives of this study: namely, demographics, training on SASL, as well as clinical experience in relation to communication with the SASL users.

The categorical nature of the survey items in the questionnaire were designed to allow for descriptive analyses presentable in Frequency tables and Crosstabulations (crosstabs), while at the same time allowing the researcher to perform chi-square tests to determine the extent of the association between categorical variables/items in the crosstab analyses at 0.05 probability value (p-value = 0.05). The importance of testing the strength of the association between categories was to determine the statistical difference between them. In this study, descriptive results are presented in frequency tables, crosstabs and chi-square, illustrated in simple and understandable one- and two-dimensional charts and tables.

This study was conducted online with qualified AUDs and STAs working in different settings, such as public hospitals, educational settings, academia, and private practice. However, given the purposive nature of spread and the limited availability of participants caused by the strict inclusion criteria, the data were not normally distributed. The data in this study were therefore non-probabilistic. Non-probability sampling methods were used in this study, and the distribution of demographic variables such as sex, race, age and type of qualification were obtained. Furthermore, in this study, more women responded more than men. Expectedly, Du Plessis (2018) explains that in the degree of speech-language pathology and audiology, there are more women than men, hence there is a gender imbalance in the study. Again, the study population was small and predominantly Black, recruited from various professional platforms (see Table 4.1 for the demographic distribution of STAs and AUDs). This demographic composition stands in contrast to the broader racial distribution within the profession. According to Pillay (2015), the fields of speech-language therapy and audiology in South Africa remain largely dominated by White professionals, both historically and in current practice. This racial disparity is rooted in the legacy of apartheid-era inequalities, which limited access to higher education and professional training for Black South Africans. As a result, the underrepresentation of Black professionals in these fields continues to influence who enters the profession, whose perspectives are prioritised in clinical practice, and the cultural competence embedded in service delivery. The current study's sample, while providing valuable insights, may therefore not fully reflect the dominant professional demographic, highlighting the need for broader and more inclusive representation in future research.

5.1.1. Quantitative results

Results are based on a quantitative descriptive analysis, which allowed for a comprehensive understanding of the participants' demographic distribution, and their attitudes and behaviours towards SASL use in their practice. The section begins by summarizing demographic information about the study. This includes describing the information about participants' characteristics. The section proceeds to present results concerning AUDs and STAs knowledge, perceptions, motivation, and confidence in using SASL. The results reported here address the demographics of the participants and three objectives:

- **Knowledge and Perceptions of Deaf Culture and SASL**

This section examined the participants' understanding of Deaf culture and their attitudes towards using SASL as a mode of communication. It aimed to provide insights into how well AUDs and STAs are informed about Deaf culture and how positively or negatively they perceive the use of SASL in their professional practices.

Motivation to Use or Not Use SASL:

This part of the analysis explored the various factors that either motivate or discourage AUDs and STAs from using SASL when providing services to Deaf/deaf individuals or those who use SASL. It included considerations such as the perceived benefits and challenges of using SASL, personal or professional experiences with Deaf patients, and institutional or systemic support for SASL training and use.

- **Confidence in Providing Services in SASL**:

  This section assessed the participants' self-reported confidence in their ability to provide services in SASL. It examined the challenges they face, such as language proficiency or lack of training, and the strategies they use to overcome these challenges. The findings provide a picture of how comfortable and prepared AUDs and STAs feel when delivering services to clients who use SASL, and what might help improve their confidence levels.

These objectives provide a deeper understanding of the factors influencing AUDs and STAs use of SASL in practice, helping to identify areas for improvement in training, support, and resources to better serve Deaf communities.

5.1.2 Demographic distribution

The following demographic results provide valuable information about the characteristics of participants (n=24) in this study. Understanding the demographic characteristics of the participants, such as age, sex, education level, and cultural background, here provides valuable insights into the patterns of SASL usage, knowledge and attitudes towards Deaf culture, provision of services to, and interaction with the Deaf community. Participants in this study are AUDs and STAs in public hospitals, educational settings, academia, and private practice. These AUDs and STAs' characteristics are spread in the data according to their sex, age, race, type of qualification they have, the university they attended, and the number of years they have worked at their current profession. There were nearly 4 times more female AUDs and STAs (79.2%) than the males

(20.8%). These AUDs and STAs were mainly young; over two-thirds were aged between 22-30 years (70.8%), while slightly over a fifth were aged between 31-40 years (20.8%). Only a small fraction, less than a tenth (8.3%), were between the ages of 41 and 50. In terms of race, the distribution was predominantly black (75%), followed by white (16.7%), coloured (4.2%), and Indian (4.2%).

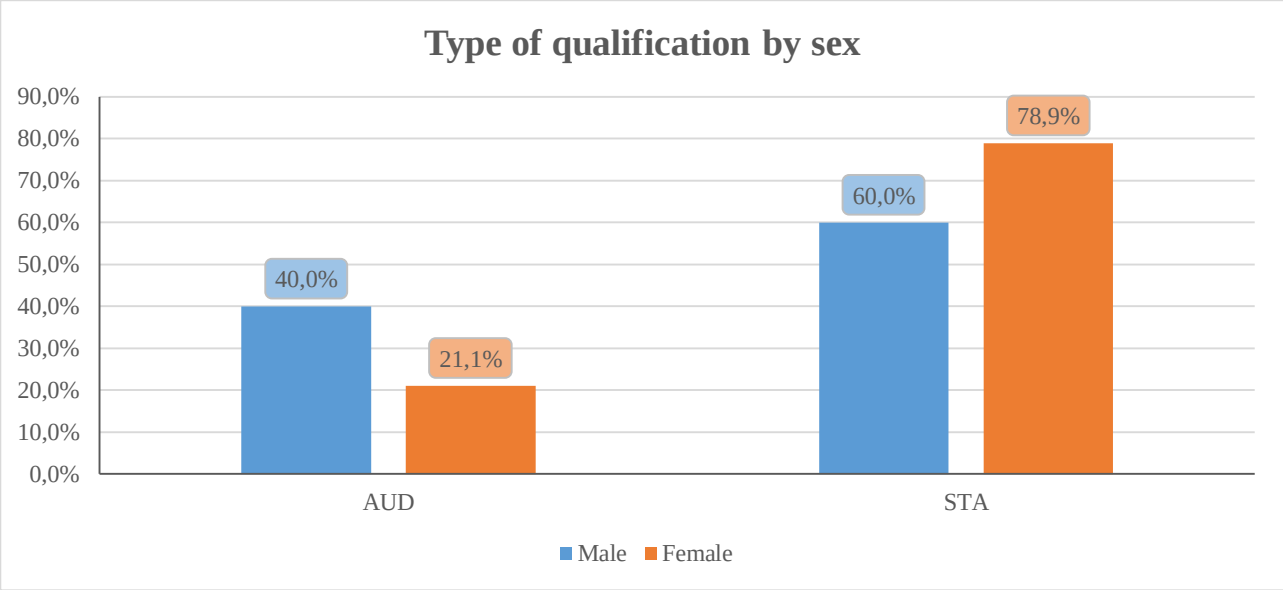
Regarding their profession and qualifications, three quarters were STAs (75.0%), while only a quarter were AUDs (25.0%). With regard to sex, nearly four-fifths of STAs were female (79.2%), compared to only a fifth (20.8%) in the profession. Two-fifths of those who said they were AUDs were males (40.0%). Over two-fifths of these AUDs and STAs indicated that they studied at Wits University (41.7%), while over a fifth indicated they studied at the Sefako Makgatho University (20.8%). Over a tenth said they have studied at the University of Cape Town (12.5%). Over two-thirds of AUDs and STAs in the data indicated they had 1-5 years of service in their profession (66.7%), while a fifth said they have 6-10 years of service in their profession (20.8%). Those who said they have 11-20 years of service as AUDs and STAs only made just over a tenth of the data (12.5%).

Table 5.1: Demographic distribution of STAs and AUDs

	Category	**Sample=24**	**Percent=100%**
Sex	Male	5	20.8
	Female	19	79.2
Total (n)		**(n=24)**	
Age	22-30 years	17	70.8
	31-40 years	5	20.8
	41-50 years	2	8.3
Total (n)		**(n=24)**	
Race	Black	18	75.0
	Coloured	1	4.2
	Indian	1	4.2
	White	4	16.7
Total (n)		**(n=24)**	
Profession	AUDs	6	25.0
	STAs	18	75.0
Total (n)		**(n=24)**	
Type of university	Sefako Makgatho University	5	20.8
	University of Cape Town	3	12.5
	Wits University	10	41.7
	University of Pretoria	6	25.0
Total (n)		**(n=24)**	

Years of service	1-5 years	16	66.7
	6-10 years	5	20.8
	11-20 years	3	12.5
Total (n)		**(n=24)**	**100%**

Figure 5.1: Type of profession, by sex



5.1.2 'How knowledgeable are you with Deaf culture?'

One of the key objectives of this study was to explore the respondents' knowledge and perceptions of Deaf culture and SASL. Deaf culture encompasses a set of social beliefs, behaviours, art, literary traditions, history, values, and shared institutions within communities influenced by deafness, using sign languages as their primary means of communication.

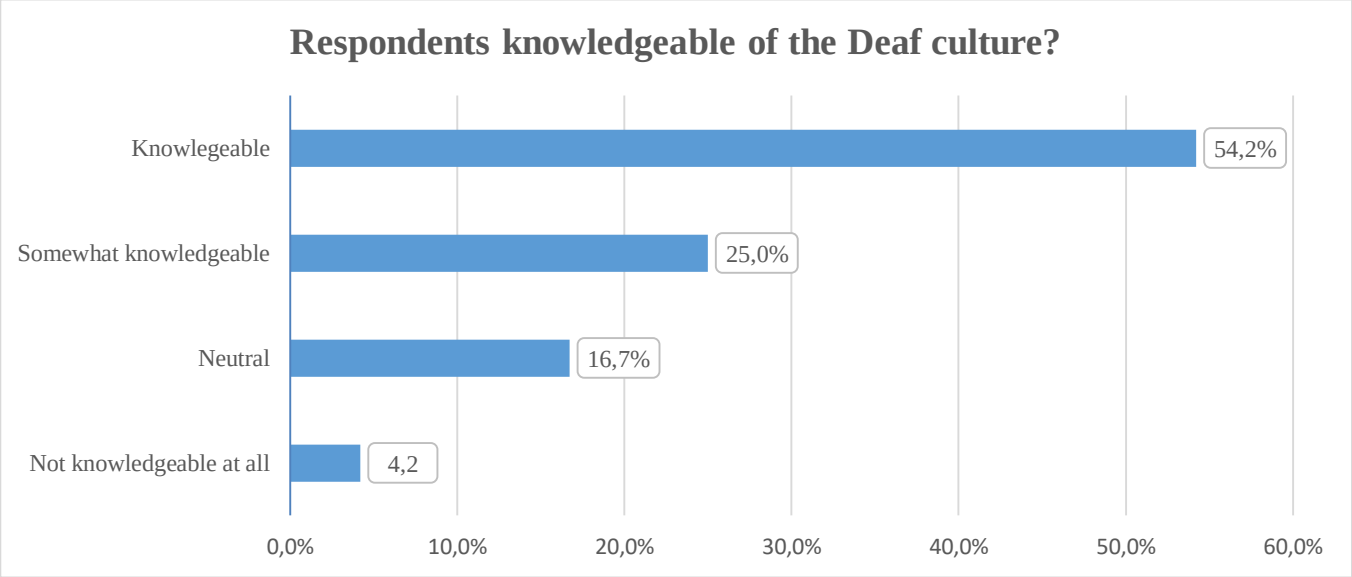
For STAs and AUDs, having knowledge and an understanding of Deaf culture and SASL is crucial for providing effective and culturally sensitive care to Deaf communities. An appreciation of Deaf culture enables these professionals to better understand the unique perspectives, experiences, and communication preferences of their Deaf patients. This understanding fosters stronger rapport, trust, and more effective treatment outcomes.

To explore this objective, respondents were asked to rate their knowledge of Deaf culture on a scale of 1 to 5, where:

- five indicated being "most knowledgeable" about Deaf culture,
- one indicated being "not knowledgeable at all."

This rating scale provided a quantitative measure of how well STAs and AUDs perceive their familiarity with Deaf culture, offering insights into areas where further education or training may be needed to improve culturally competent care in their practices.

Figure 5.2: Respondents knowledge of Deaf culture?



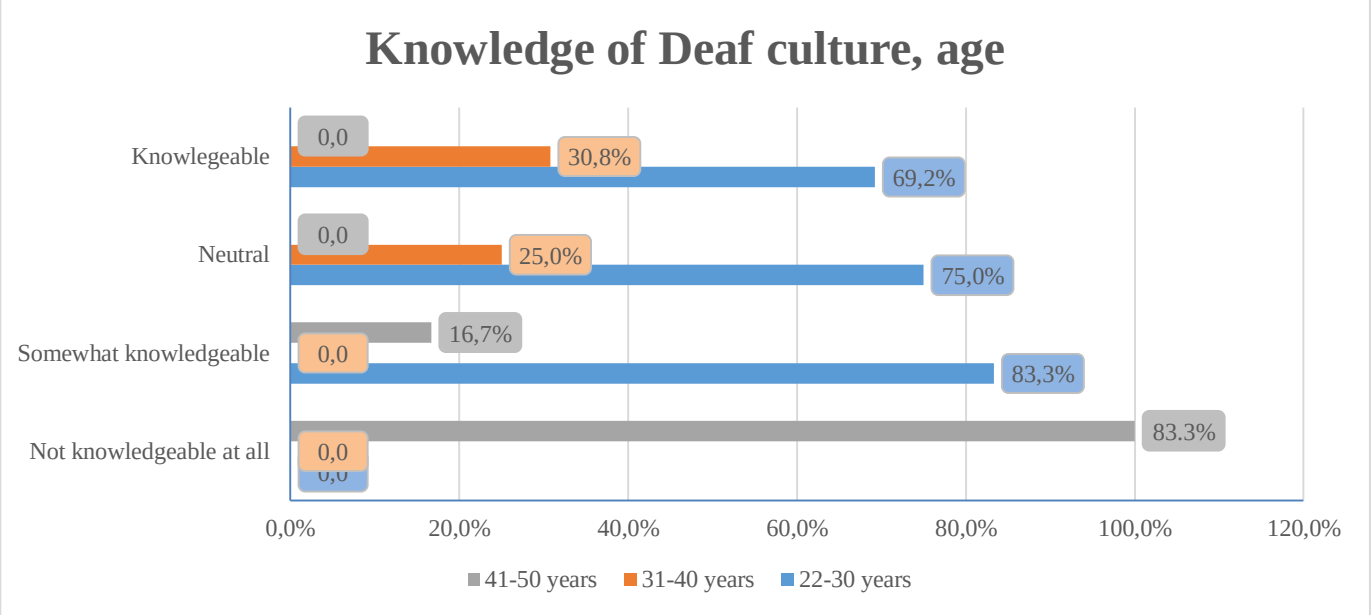
In Figure 5.2, participants rated their knowledge of Deaf culture on a scale from 1 to 5. The results showed that:

- 54.2% of STAs and AUDs reported being knowledgeable about Deaf culture, indicating a majority have a ‘fair understanding’ of the concepts, values, and practices associated with Deaf communities.
- 25.0% of participants indicated they were ‘somewhat knowledgeable’, suggesting they have a basic awareness but may lack deeper understanding or experience.

- 16.7% were ‘neutral’ about their knowledge of Deaf culture, implying they neither agreed nor disagreed about their level of familiarity, or perhaps were uncertain.
- 4.2% of STAs and AUDs reported having ‘no knowledge’ at all about Deaf culture, indicating a small minority with no exposure or understanding of it.
- Notably, none of the participants rated themselves as ‘most knowledgeable’ about Deaf culture, highlighting a potential gap in comprehensive knowledge or confidence in this area among the professionals surveyed.

These findings suggest that while a majority of participants have some level of knowledge about Deaf culture, there is still a need for further education and training to enhance the understanding and confidence of STAs and AUDs in working with Deaf communities effectively.

Figure 5.3: How knowledgeable are you with Deaf culture? By age



The data were further analysed according to participants' ages to understand how knowledge of Deaf culture varies across different age groups. Figure 5.3 presents these findings:

- Among those who reported being knowledgeable about Deaf culture (as seen in Figure 5.2), the age group 22-30 years was the most prominent. Specifically, 69.2% of the STAs

and AUDs who considered themselves knowledgeable were aged 22-30 years. This indicates that younger professionals are more likely to be familiar with Deaf culture.

- In contrast, only 30.8% of the participants aged 31-40 years reported being knowledgeable about Deaf culture, showing a decline in knowledge among slightly older professionals.
- The 22-30 years age group also showed considerable variability in their responses, with 75.0% being neutral and 83.3% being 'somewhat knowledgeable' about Deaf culture. This suggests that while many young professionals feel somewhat informed, there is still room for deeper knowledge and understanding.
- Among those who reported having 'no knowledge' at all about Deaf culture, the majority were older professionals. Specifically, most STAs and AUDs aged 41-50 years stated they did not know about Deaf culture at all (83.3%). Only a small fraction (16.7%) of this older group indicated they were 'somewhat knowledgeable'. Whilst none of the participants indicated that they were 'most knowledgeable'.

The Chi-Square test results showed that there is a significant association between the level of knowledge of Deaf culture and the age of STAs and AUDs (p-value = 0.021, which is less than 0.05 significance level). These results do not imply a causal relationship between knowledge of Deaf culture and the professionals' age. Instead, they indicate a statistically significant connection that could be influenced by other factors, such as education, experience, or exposure to Deaf culture.

These findings suggest that younger professionals, particularly those aged 22-30 years, tend to have more exposure or education regarding Deaf culture compared to their older counterparts, pointing to a potential generational shift in training or awareness that could benefit from further exploration and targeted educational interventions.

Figure 5.4: From a scale of 1-5, how knowledgeable are you (as an AUD/ STA) with Deaf culture? By profession?

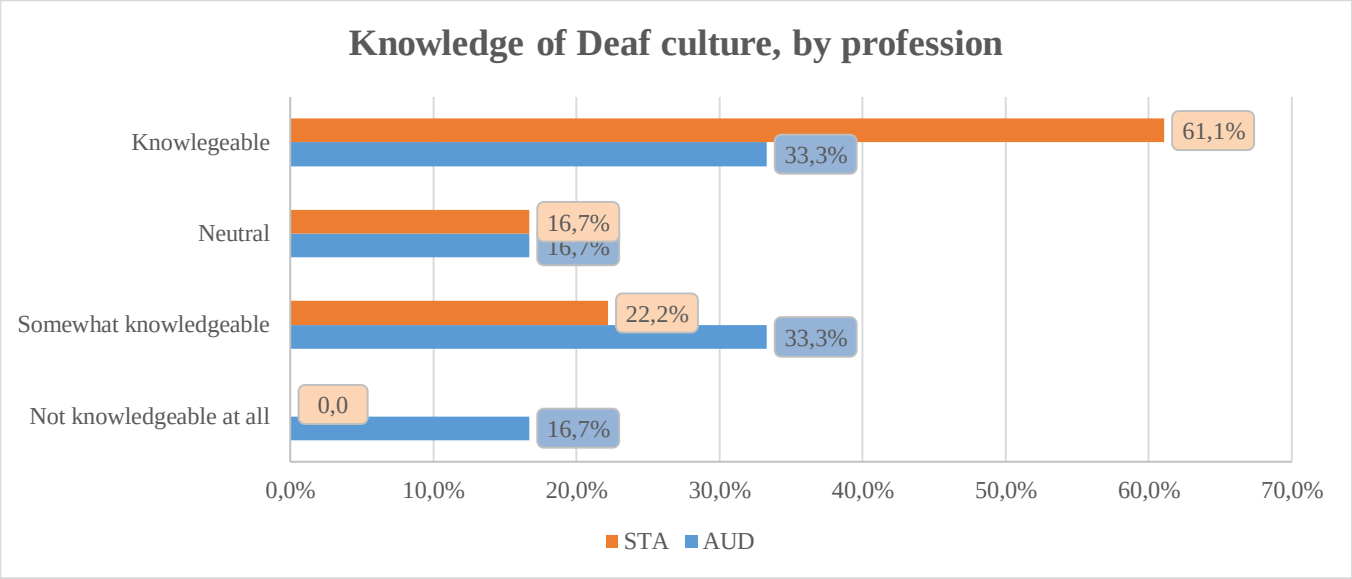


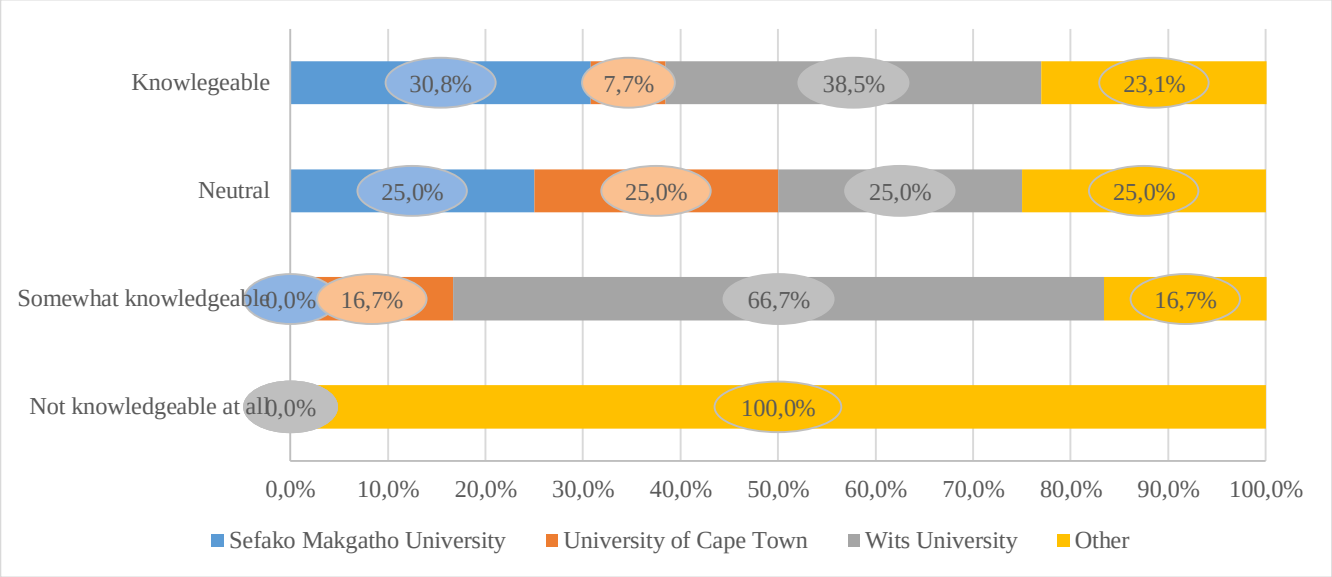
Figure 5.4 compares the knowledge of Deaf culture between and STAs and AUDs. The results reveal distinct differences in the extent of their knowledge:

- Over three-fifths of STAs (61.1%) reported being knowledgeable about Deaf culture, indicating a relatively high level of familiarity among STAs.
- In contrast, only one-third of AUDs (33.3%) indicated they were knowledgeable about Deaf culture, suggesting a lower level of familiarity within this group compared to STAs.
- Nearly a fifth of AUDs (16.7%) reported that they did not know about Deaf culture at all. Notably, none of the STAs (0.0%) reported a total lack of knowledge about Deaf culture, highlighting a significant difference in awareness levels between the two groups.

Despite these observed differences between STAs and AUDs regarding their self-reported knowledge of Deaf culture, the Chi-Square test results indicated that there was no statistically significant association between knowledge of Deaf culture and professional qualifications (p-value = 0.277, which is greater than 0.05).

This means that while there appears to be a difference in the extent of knowledge between STAs and AUDs, this difference is not statistically meaningful. The lack of a significant association suggests that factors other than professional qualifications, such as individual experiences, training, or exposure to Deaf culture, might play a more critical role in shaping their knowledge and understanding of Deaf culture.

Figure 5.5: From a scale of 1-5, how knowledgeable are you (as an AUD/ STA) with Deaf culture, by type of university?



Respondents in this study were asked to indicate their knowledge of Deaf culture on a scale of 1 to 5, which was then analysed based on the university they attended. Figure 5.5 presents the findings:

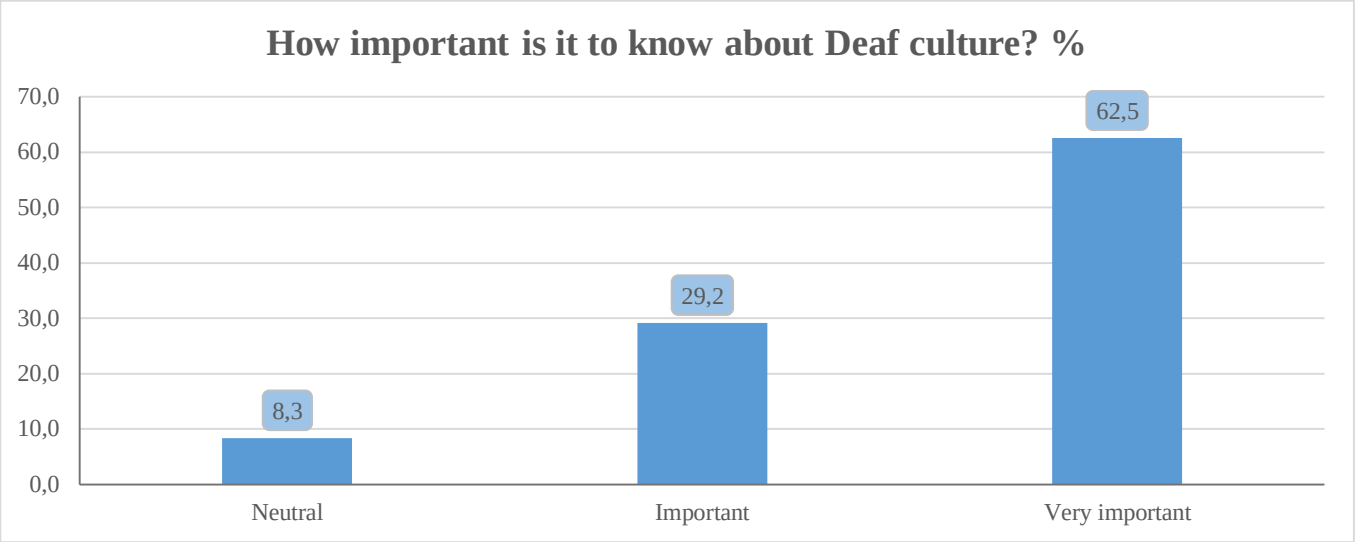
- Among STAs and AUDs who reported being knowledgeable about Deaf culture:
    - 38.5% attended Wits University, suggesting that a significant portion of knowledgeable respondents came from this institution.

    - 30.8% attended Sefako Makgatho University, representing nearly a third of the respondents who consider themselves knowledgeable about Deaf culture.
    - 23.1% attended the University of Pretoria, making up nearly a quarter of the respondents in this category.
- Notably, the University of Pretoria (other) was the only institution where AUDs reported being not knowledgeable about Deaf culture at all. This suggests that some graduates from this university feel less informed about Deaf culture compared to graduates from other institutions.
- The Chi-Square test results showed that there was no statistically significant association between respondents' knowledge about Deaf culture and the university they attended (p-value = 0.626, which is greater than 0.05).

This means that while there are differences in reported knowledge levels about Deaf culture among STAs and AUDs from different universities, these differences are not statistically meaningful. This lack of significant association suggests that factors other than the specific university attended—such as individual interests, additional training, or professional experiences—may play a more critical role in influencing knowledge of Deaf culture.

Understanding the culture of the Deaf community is of the utmost importance for STAs and AUDs in providing effective and culturally sensitive care to the Deaf community. Knowing Deaf culture enables these professionals to recognize the variety of communication modalities utilized by Deaf/deaf people, including lipreading, and using SASL. They can better fulfil the needs of their Deaf/deaf patients by customizing their treatment and communication methods with this knowledge. Respondents were asked to rate how important they think it is to know about Deaf culture. Response options were put on an ordinal scale, ranging from 1-5, where 1 was very important, and 5 not very important.

Figure 5.6: In your opinion, how important is it to know about Deaf culture?

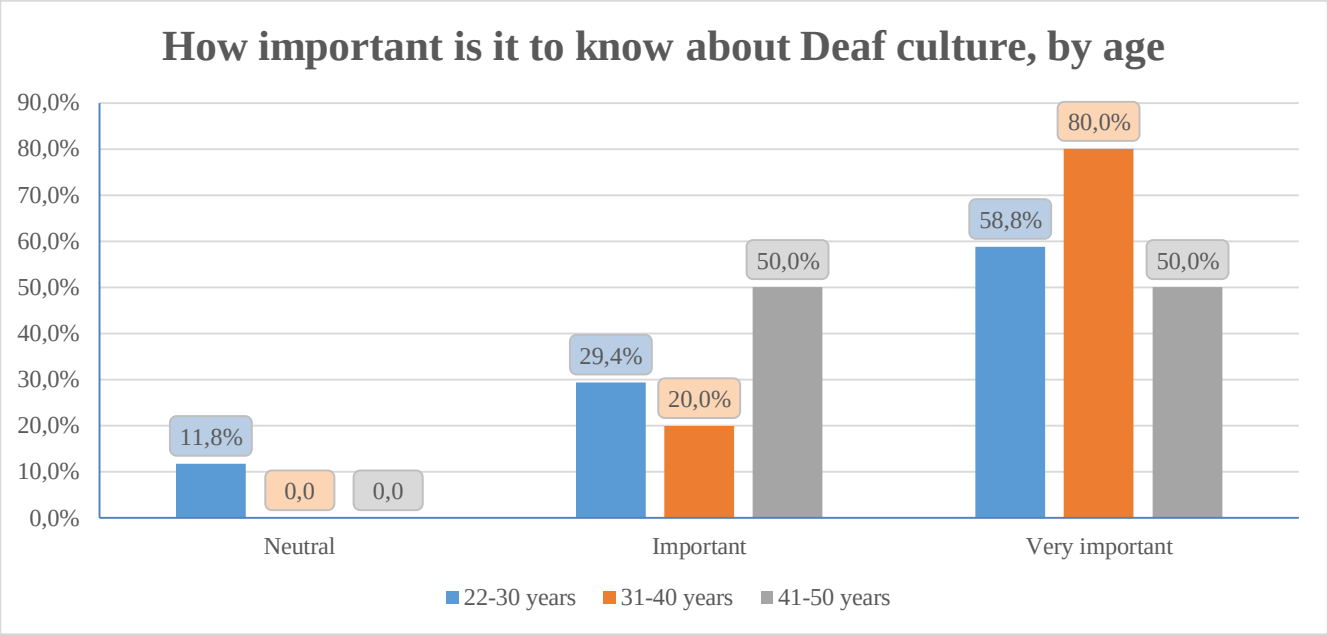


Participants in this study were asked to express their views on whether it is imperative for professionals to have knowledge about Deaf culture. The results indicated a strong consensus on the importance of this knowledge:

- Nearly two-thirds (62.5%) of STAs and AUDs who participated in the study felt that it was very important for them to know about Deaf/deaf culture. This reflects a high level of recognition among participants regarding the value of understanding Deaf culture in their professional roles.
- No participant indicated that it was not important to know about Deaf culture, highlighting a universal agreement on the necessity of this knowledge.
- Less than a tenth (8.3%) were neutral, neither agreeing nor disagreeing on the importance of knowing about Deaf culture. This small percentage suggests that only a few participants were uncertain about its relevance.
- The high interest in knowing about Deaf culture aligns with the earlier finding that over half of the STAs and AUDs (54.2%) reported being knowledgeable about Deaf culture (as shown in Figure 5.2).

These findings suggest a strong recognition among STAs and AUDs of the importance of being knowledgeable about Deaf culture, likely driven by the desire to provide culturally competent and effective care to Deaf clients. This high interest may also reflect a broader awareness of the need for inclusive communication practices within the professions.

Figure 5.7: In your opinion, how important is it to know about Deaf culture, by age?



These results were analysed according to the importance of Deaf culture, based on their age. The results of the study revealed varying perceptions among different age groups of STAs and AUDs regarding the importance of knowing about Deaf culture:

- 80% of STAs and AUDs aged 31-40 years believed it was very important to know about Deaf culture. This age group had the highest percentage of participants who felt strongly about the importance of this knowledge.
- In contrast, only 58.8% of STAs and AUDs aged 22-30 years believed that it was very important to know about Deaf culture, indicating a slightly lower level of perceived importance in this younger age group.
- Among those aged 41-50 years, only 50% believed it was very important to know about Deaf culture. This makes them the least likely among all age groups to consider it very

important. However, the other half (50%) of STAs and AUDs in this age group believed it was important (but not very important) to know about Deaf culture.

    - This is higher compared to only 20% of their counterparts aged 31-40 years and over a quarter of those aged 22-30 years who believed it was important (but not very important).

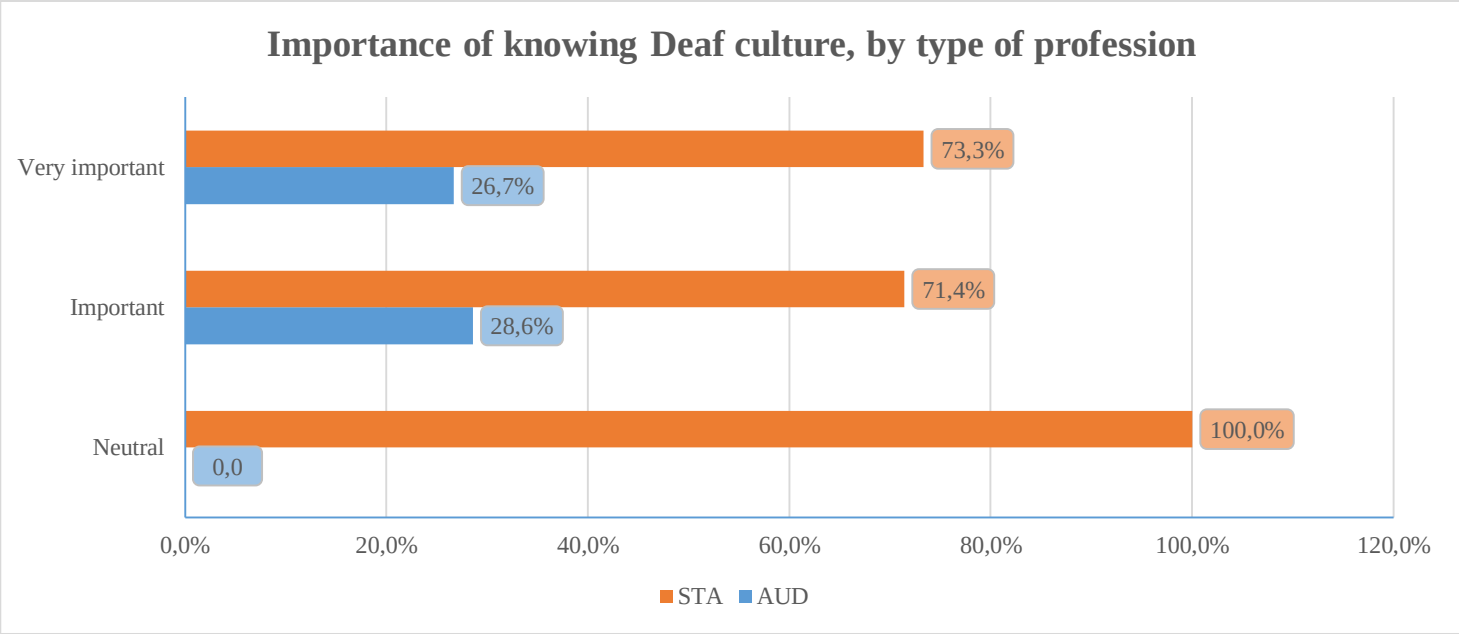
- 11% of the youngest group of professionals (aged 22-30 years) indicated being neutral about the importance of knowing Deaf culture, while none of the participants in the older age groups (31-40 and 41-50 years) expressed neutrality.

It is also noteworthy that none of the age groups surveyed indicated that it was unimportant or very unimportant to know about Deaf culture. This suggests a consensus on the significance of understanding Deaf culture across all age groups, even if the perceived degree of importance varies.

- The Chi-Square test results indicated that there was no statistically significant association between the perceived importance of knowing Deaf culture and the age of the professionals (p-value = 0.809, which is greater than 0.05).

These findings suggest that, although age groups differ in how strongly they feel about the importance of knowing Deaf culture, these differences are not statistically meaningful. All groups agree on the overall importance of understanding Deaf culture, but their intensity of belief may vary slightly with age.

Figure 5.8: In your opinion, how important is it to know about Deaf culture, by type of profession?

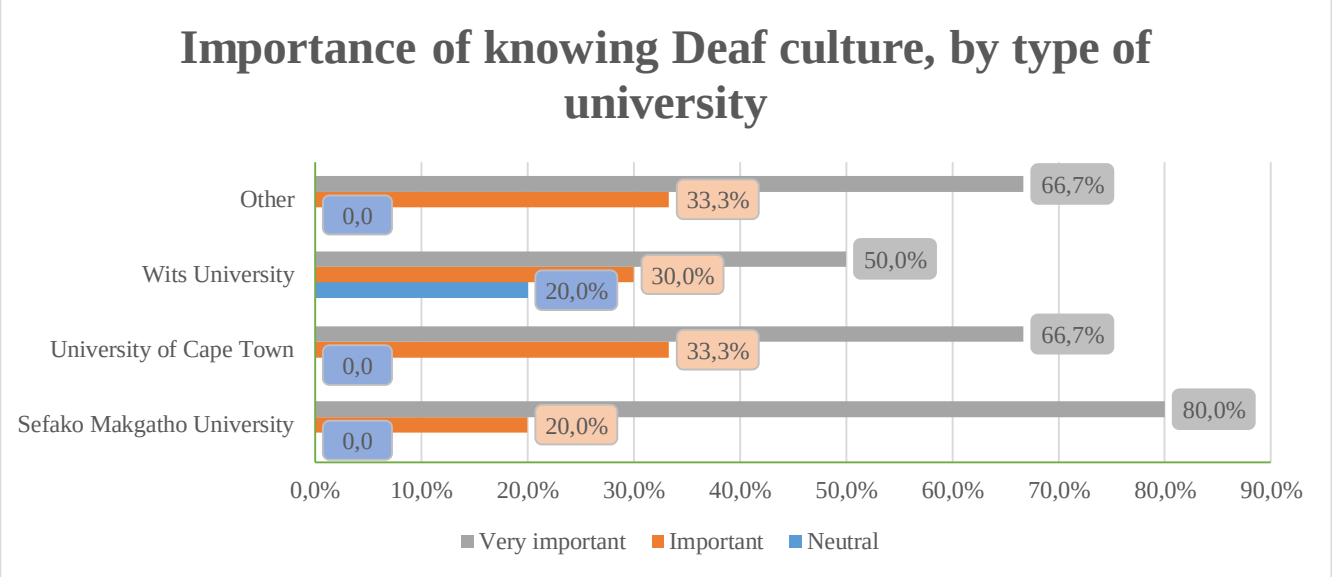


The study analysed the opinions of STAs and AUDs regarding the importance of knowing about Deaf culture, based on their professions. The results, as shown in Figure 5.8, reveal distinct differences between these two groups:

- Among those who felt it was very important to know about Deaf culture:
    - Nearly three-quarters (73.3%) were STAs, suggesting a stronger emphasis on the importance of this knowledge among STAs.
    - In comparison, only over a quarter (26.7%) were AUDs, indicating that a smaller proportion of audiologists viewed it as very important.
- These results align with previous findings (Figure 5.4), where over three-fifths of STAs (61.1%) reported being knowledgeable about Deaf culture, compared to only one-third of AUDs (33.3%).
- Interestingly, while all STAs (100.0%) reported being neutral about the importance of knowing about Deaf culture, none of the AUDs indicated neutrality. This suggests a divergence in how the two groups view the significance of this knowledge, with STAs showing more varied responses than AUDs.
- The Chi-Square test results indicated that there was no statistically significant relationship between the perceived importance of knowing about Deaf culture and the type of qualification held by the professionals (p-value = 0.692, which is greater than 0.05).

These findings suggest that although there are differences in how STAs and AUDs perceive the importance of knowing about Deaf culture, these differences are not statistically significant. Both STAs and AUDs generally recognize the importance of this knowledge, but their level of emphasis may vary based on their professional experiences or exposure to Deaf culture.

Figure 5.9: In your opinion, how important is it to know about Deaf culture, by type of university?



Importance of Knowing About Deaf Culture by University Attended

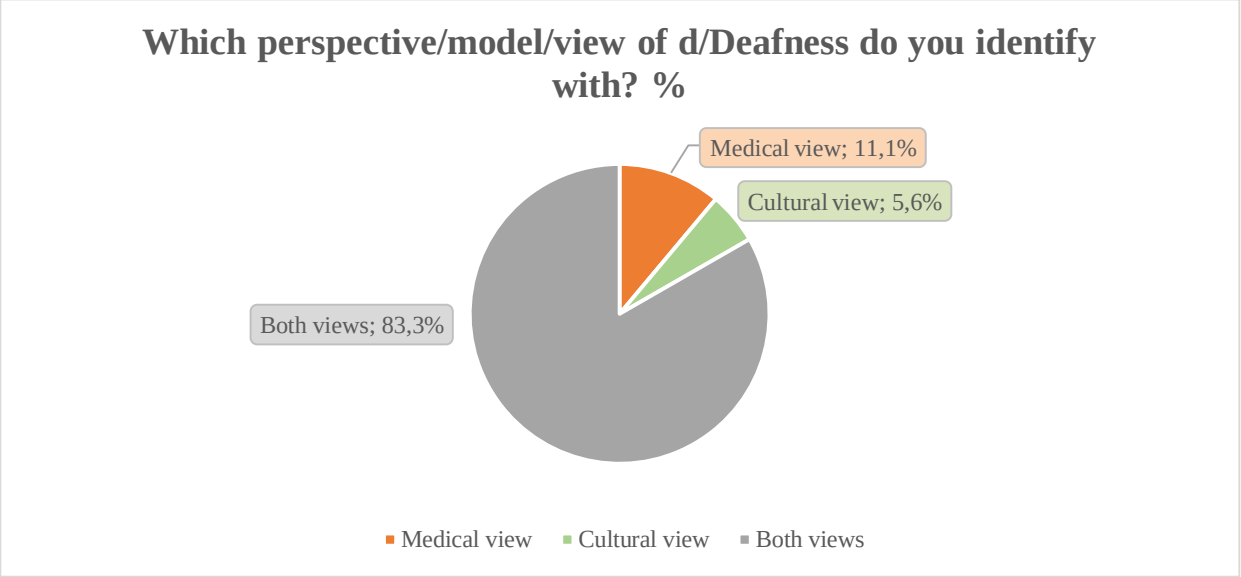
Figure 5.9 presents the analysis of participants' opinions on the importance of knowing Deaf culture, categorized by the university they attended. The findings indicate that across all

universities, there is a consensus on the value of understanding Deaf culture. However, the strength of this sentiment varies by institution:

- Sefako Makgatho University stood out with the strongest sentiment, where eight out of ten participants (80.0%) believed it was very important to know about Deaf culture. This suggests that graduates from Sefako Makgatho University place a particularly high value on understanding Deaf culture.
- While participants from University of Pretoria also felt it was very important to know about Deaf culture, the emphasis was less pronounced compared to those from Sefako Makgatho University.
- The Chi-Square test results indicated that there was no statistically significant relationship between the perceived importance of knowing Deaf culture and the university attended by the professionals (p-value = 0.741, which is greater than 0.05).

These findings suggest that although the emphasis on the importance of knowing Deaf culture varies among participants from different universities, these differences are not statistically meaningful. Regardless of the university attended, there is a general agreement on the significance of understanding Deaf culture among STAs and AUDs, reflecting a broader professional recognition of its relevance in practice.

Figure 5.10: Which perspective/model/view of d/Deafness do you identify with?[1]



Respondents' Philosophical Stance on deafness/Deafness

In Figure 5.10, participants were asked to indicate their philosophical stance regarding deafness/Deafness, whether they identified with a medical, cultural, or both perspectives. The results show a clear preference among STAs and AUDs for a more holistic view of deafness:

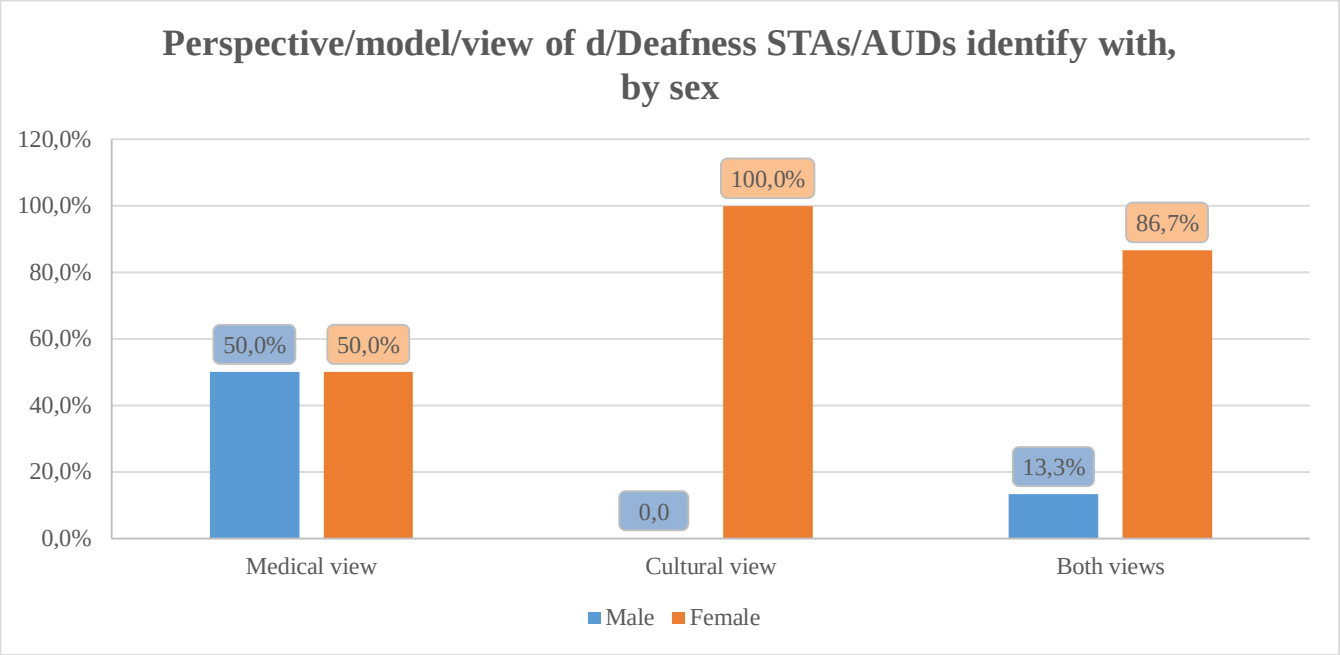
- Over four-fifths (83.3%) of STAs and AUDs identified with both the medical and cultural views of deafness/Deafness. This suggests that the majority of these professionals recognize the value of both perspectives in understanding and addressing the needs of Deaf and deaf individuals.
- A smaller percentage identified with only one perspective:
    - Less than a tenth (11.1%) of respondents identified with the medical view alone, viewing deafness primarily as a medical condition.
    - Only 5.6% of respondents identified with the cultural view alone, emphasizing the social and cultural aspects of Deafness without seeing it as a medical issue.

The results highlight that, while a small number of professionals lean slightly towards viewing deafness as a medical condition, the vast majority prefer to approach deafness/Deafness from a

[1] Other refers to the university of Pretoria

balanced perspective, considering both the medical and cultural views. This reflects an understanding among STAs and AUDs of the complex nature of deafness/Deafness, acknowledging both the clinical and sociocultural dimensions in their practice.

Figure 5.11. Which perspective/model/view of d/Deafness do you identify with, by sex?

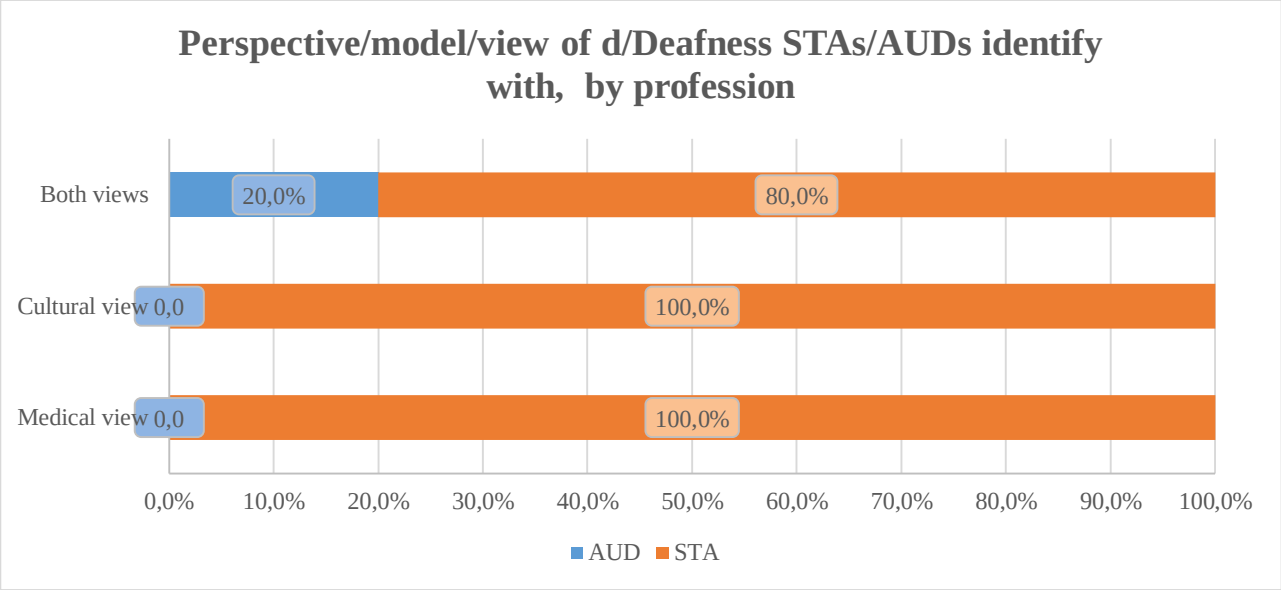


The results were analysed based on sex, as shown in Figure 5.11, focusing on STAs and AUDs:

- Medical view of Deafness: There is no difference between sex. Equal proportions of male (50%) and female (50%) STAs and AUDs consider deafness as a medical condition that requires remediation or fixing.
- Cultural view of Deafness: Only female STAs and AUDs (100%) perceive Deafness as a cultural phenomenon, where Deaf people are regarded as a cultural minority. No male respondents identified with this cultural view.
- Both views: The majority of female professionals (86.7%) embrace both the medical and cultural views of Deafness. In contrast, only 13.3% of male professionals identify with both perspectives.

Although these differences are observed, the chi-square test result (p-value = 0.383) shows no statistically significant association between sex and the preferred perspective on deafness/Deafness. Therefore, sex does not have a meaningful impact on the perspective respondents identify with.

Figure 5.12: Which perspective/model/view of d/Deafness do you identify with, by type of profession?



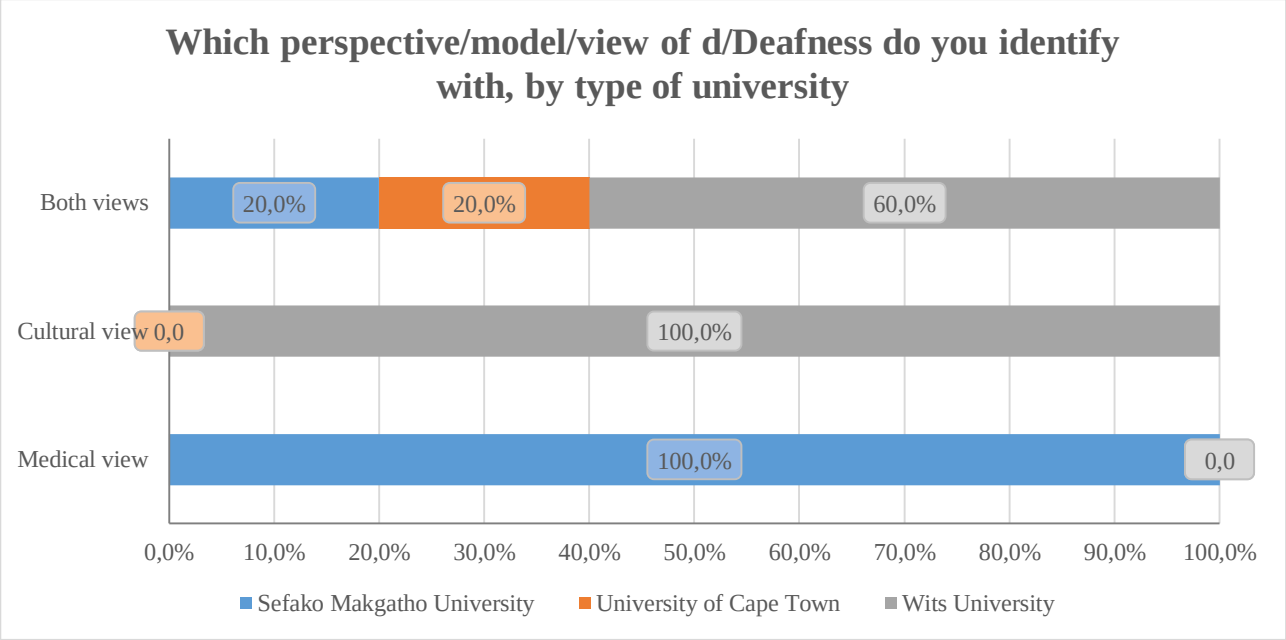
Respondents were asked whether STAs and AUDs identified with the medical, cultural, or both views of deafness/Deafness. The results revealed:

- Both views (Medical and Cultural): Four-fifths (80%) of STAs preferred both the medical and cultural models of deafness/Deafness, compared to just one-fifth (20%) of AUDs who expressed the same preference.
- AUDs' Responses: None of the AUDs indicated a preference for either the cultural view of Deafness (0%) or the medical view of deafness (0%). This may be related to the fact that some AUDs admitted to having limited knowledge of Deaf culture, as highlighted in Figure 5.4.
- STAs' Responses: On the other hand, STAs preferred both the medical and cultural views. When asked to respond solely within the medical view, all STAs (100%) expressed a

preference for the medical model. Similarly, when asked to choose within the cultural view, all STAs (100%) identified with the cultural model of Deafness. However, when asked to consider views outside of the medical and cultural frameworks, more than three-fifths (61.1%) of STAs indicated they were knowledgeable about Deaf culture (as shown in Figure 5.4).

The chi-square test (p-value = 0.698, which is greater than 0.05) found no statistically significant association between the preferred perspective (medical, cultural, or both) and the type of profession (STA or AUD). Thus, the profession does not significantly influence the perspective that respondents identify with.

Figure 5.13: Which perspective/model/view of d/Deafness do you identify with, by type of university?



In this study, participants were asked to identify whether they align with the medical view, cultural view, or both regarding Deafness/deafness. Figure 5.13 illustrates which perspective STAs and AUDs identified with, categorized by the university they attended.

Key findings include:

Wits University:

- All (100%) STAs and AUDs identified with the cultural view of Deafness.
- Additionally, 60% of these participants reported holding both views (cultural and medical).

University of Cape Town :

- 20% of STAs and AUDs identified with both views.

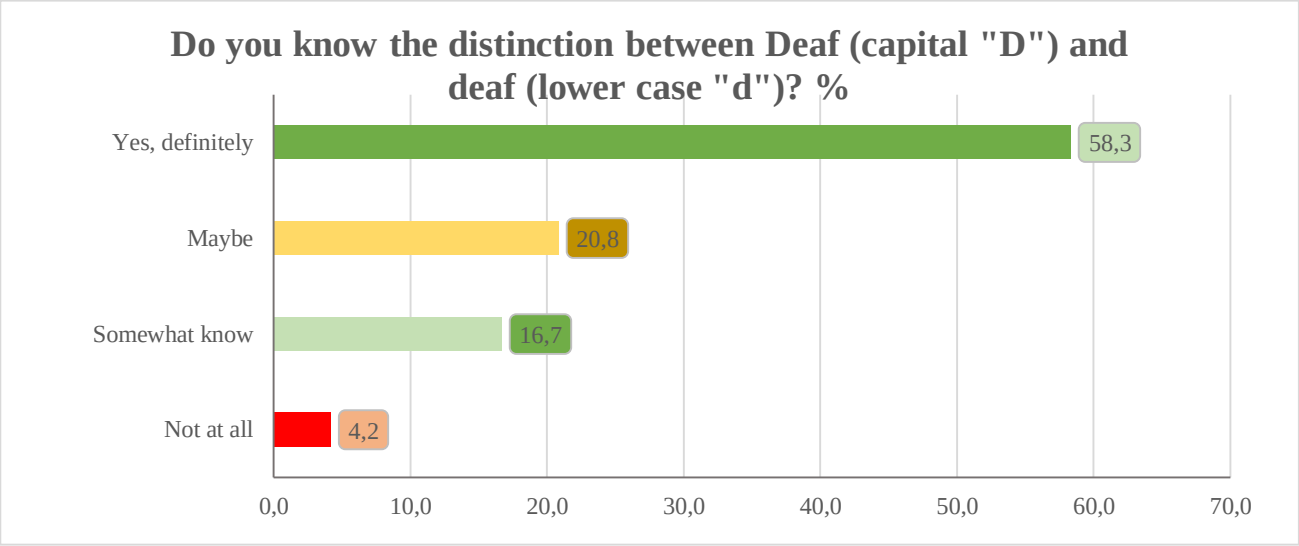
Sefako Makgatho University:

- All (100%) STAs and AUDs identified with the medical view of Deafness.

Furthermore, professionals from universities where both the cultural and medical models were acknowledged (Wits University and Sefako Makgatho University) also indicated a higher level of knowledge about Deaf culture, as shown in Figure 5.5.

Despite these observed trends, the chi-square analysis (p-value = 0.166, which is greater than 0.05) indicates no statistically significant relationship between the perspectives that STAs and AUDs identified with and the university they attended.

Figure 5.14: Do you know the distinction between Deaf (capital "D") and deaf (lower case "d")?



Understanding the distinction between uppercase "D" Deafness and lowercase "d" deafness is essential for STAs and AUDs because it reflects different perspectives on deafness and identity. The term deaf is divided into two categories:

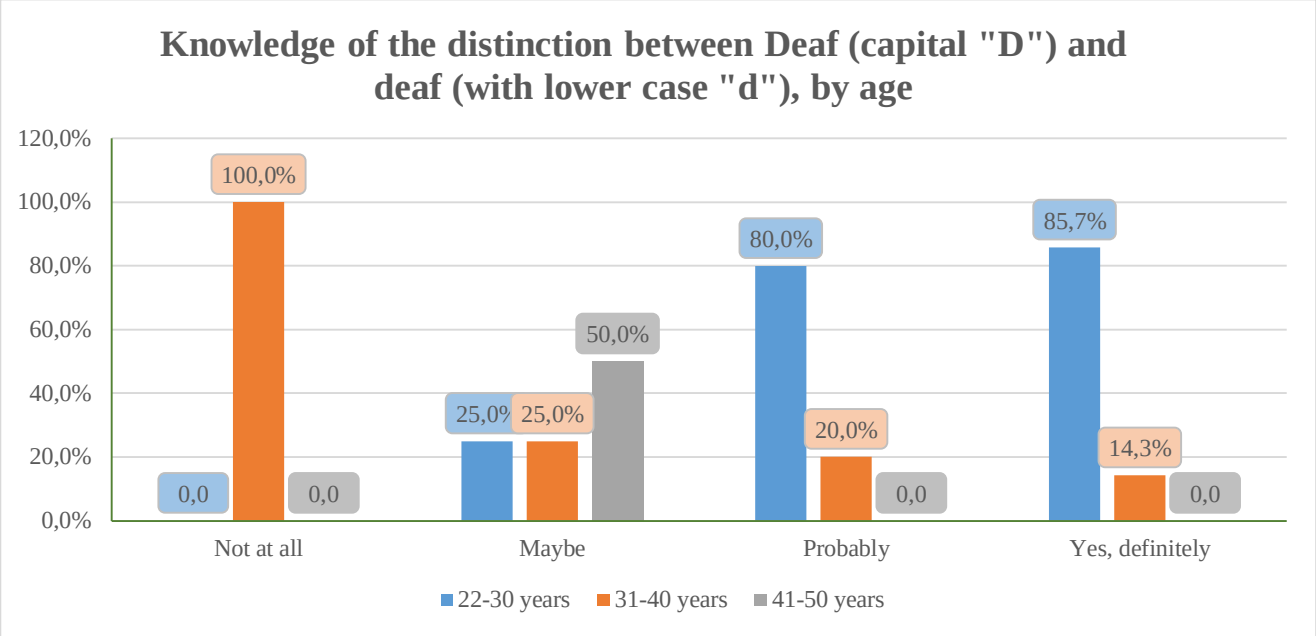
- Deaf (uppercase "D") refers to those who identify with the cultural model, viewing themselves as part of the Deaf community, with shared experiences, language (usually Sign Language), and cultural practices.
- deaf (lowercase "d") refers to the medical model, focusing on the physical condition of hearing loss, and often associated with individuals who may not engage with the Deaf community or use Sign Language.

In this study, STAs and AUDs were asked if they understood the distinction between these two terms. The results revealed that:

- 58.3% of participants definitely knew the difference between the cultural and medical models of Deafness/deafness.
- 20.8% were unsure of the distinction.
- Only a small proportion, 4.2%, indicated that they did not know the distinction at all.

These results suggest that while most professionals have a clear understanding of the distinction, there remains a significant portion who are either unsure or unaware, indicating a need for further education and awareness regarding Deaf culture and identity within the field

Figure 5.15: Knowledge of the distinction between Deaf (capital "D") versus deaf (lower case "d"), by age.



Respondents in the study were asked if they knew the distinction between uppercase "D" (Deaf) and lowercase "d" (deaf). Figure 5.15 presents the results of STAs and AUDs based on their age groups.

The analysis revealed that younger professionals, aged 22-30 years, demonstrated a significantly better understanding of the distinction between the two views of uppercase "D" and lowercase "d" compared to their older counterparts:

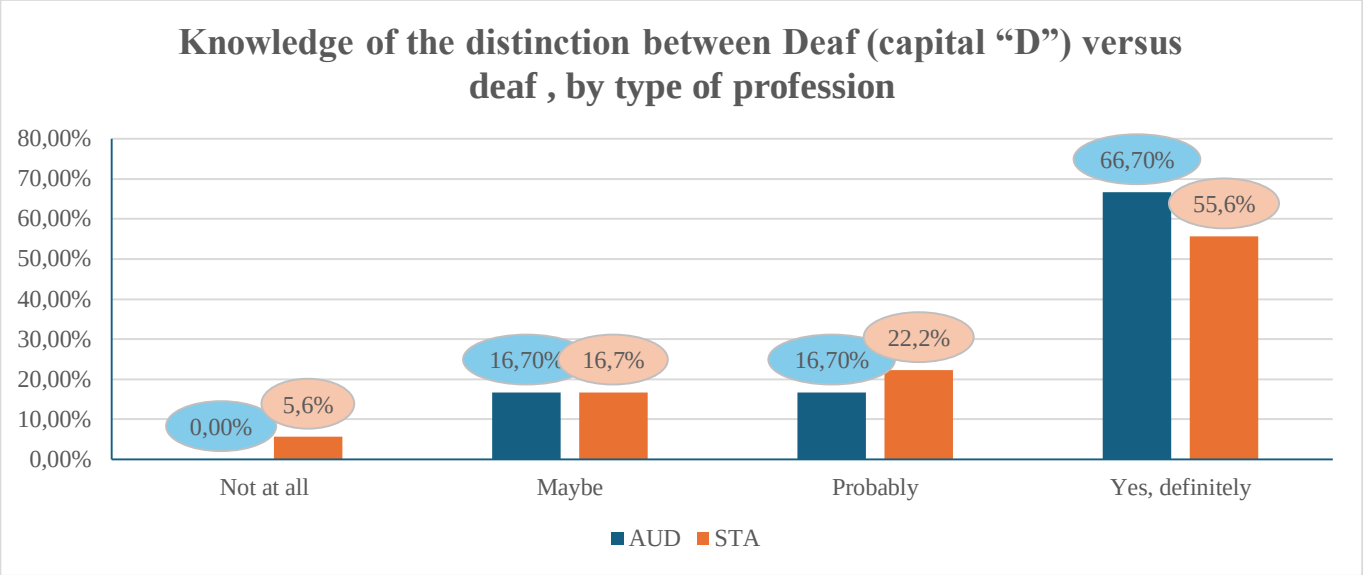
- Among those who definitely knew the difference, the majority (85.7%) were aged 22-30 years.
- In contrast, only 14.3% of those aged 31-40 years knew the difference, and none of the professionals aged 41-50 years reported having this knowledge.

Additionally, the younger group of STAs and AUDs (22-30 years) also indicated that they were more knowledgeable about Deaf culture (as seen in Figure 5.3).

The chi-square results (p-value = 0.015, which is less than 0.05) confirmed a significant relationship between the STAs and AUDs' understanding of the distinction between "Deaf" and

"deaf" and their age. This suggests that younger professionals are more attuned to the cultural nuances of being a Deaf person, while older professionals may need further education or exposure to these concepts.

Figure 5.16.: Knowledge of the distinction between Deaf (capital "D") versus deaf (lower case "d"), by type of profession



In this study, participants were asked whether STAs and AUDs are knowledgeable about the distinction between Deaf (uppercase "D") and deaf (lowercase "d"). Figure 5.16 presents the responses based on their professions.

Key findings include:

- AUDs:
  - 66.7% of AUDs reported that they "definitely know" the distinction between the cultural Deaf and medical deaf.
  - None of the AUDs reported not knowing at all of the distinction.
- STAs:
  - 55.6% of STAs responded "Yes, definitely" to knowing the distinction.
  - A small percentage (5.6%) of STAs indicated they did not know all of the distinction.

The results were fairly similar across other response categories, with the key difference being that no AUDs lacked knowledge of the distinction, while a small portion of STAs did not know the distinction.

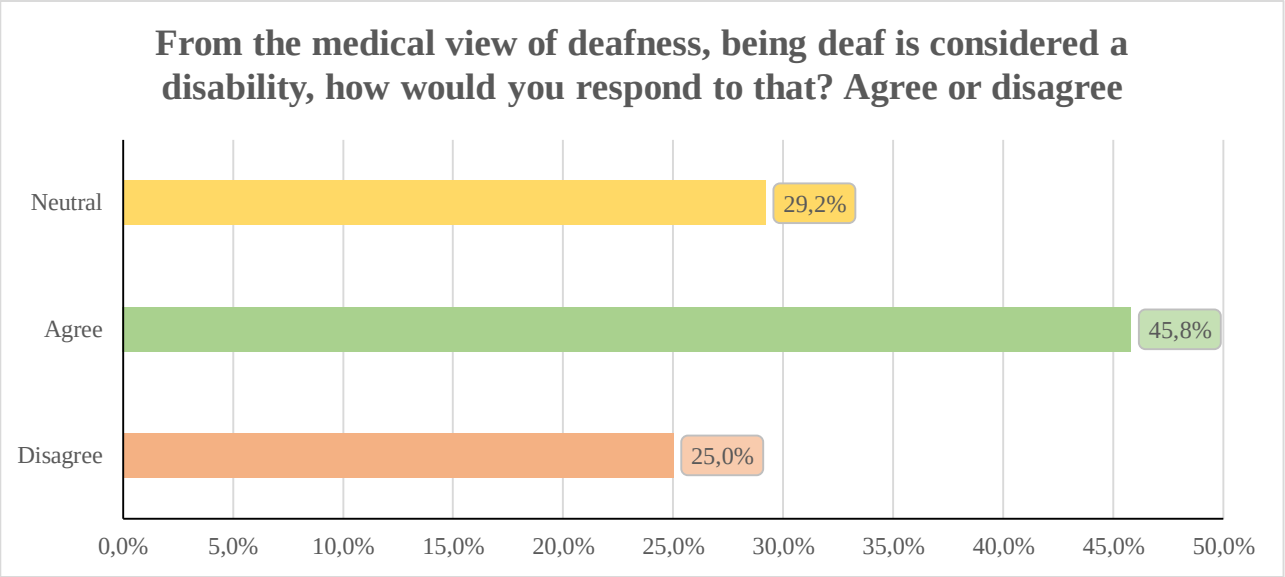
Interestingly, in Figure 5.4, it was found that a higher percentage of STAs (61.1%) were more knowledgeable about Deaf culture compared to AUDs (33.3%). However, despite being more knowledgeable about Deaf culture, some STAs reported lacking knowledge of the distinction between Deaf (cultural) and deaf (medical).

The chi-square analysis (p-value = 0.92, greater than 0.05) indicated that there was no significant association between the knowledge of the distinction between Deaf (capital "D") and deaf (lowercase "d") and the type of profession (STA or AUD). This means that, statistically, the type of profession did not significantly affect whether participants knew the distinction between these two perspectives.

5.2.5. Perceptions of Deaf culture

This section of results explores STAs and AUDs' perceptions of Deaf culture. STAs and AUDs were asked to express their opinions about Deaf culture, especially regarding how important they felt was to know about Deaf culture, and to agree or disagree with the medical view of deafness "seeing being deaf as a disability".

Figure 5.17: From the medical view of deafness, being deaf is considered a disability, how would you respond to that? Agree or disagree



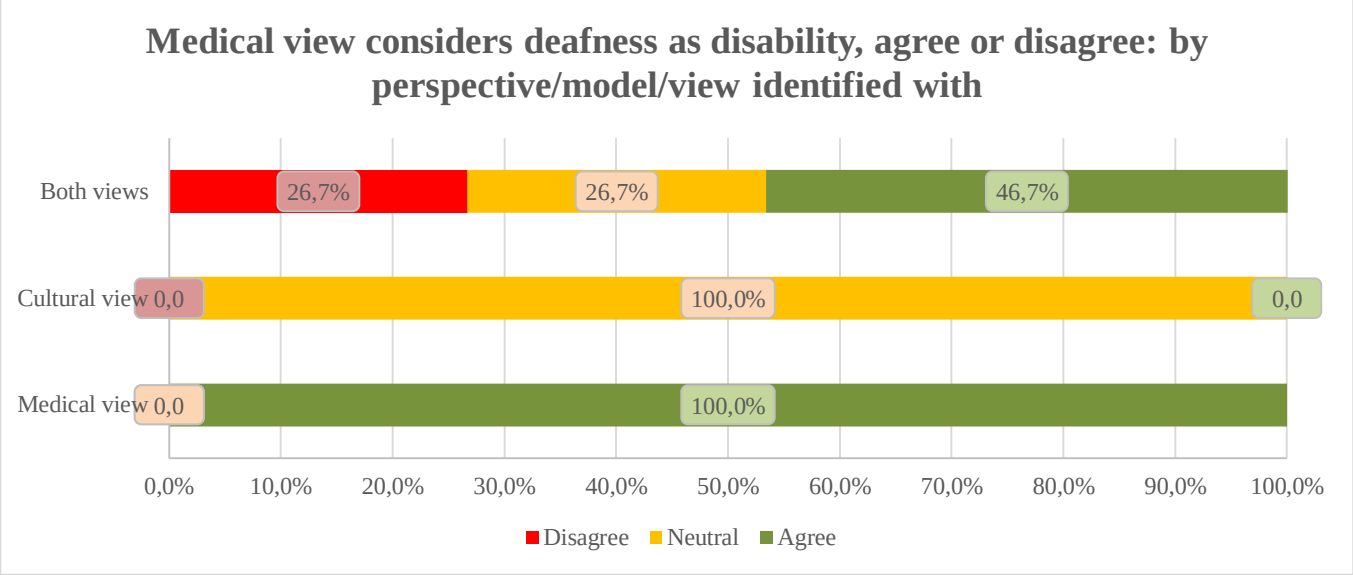
In this study, respondents were asked whether they viewed deafness as a disability and whether they agreed or disagreed with the statement based on the medical view of deafness, which considers being deaf as a disability. Figure 5.17 presents the responses of STAs and AUDs regarding their agreement with this view.

The results show that:

- 45.8% of participants agreed with the medical view of deafness, considering it a disability.
- 25.0% of participants disagreed with the statement.
- 29.2% of participants remained neutral on the issue.

These results contrast with the findings in Figure 5.6, where only a small portion of participants (8.3%) identified solely with the medical model of deafness. However, a significant portion (62.5%) identified with both the medical and cultural views of Deafness/deafness, indicating a broader acceptance of a combined perspective rather than just one model. This suggests that while a notable number of STAs and AUDs may agree with the view of deafness as a disability, many participants may also hold more complex, integrated views that encompass both medical and cultural perspectives. The neutral stance taken by nearly a third of the respondents reflects this nuanced understanding of Deafness/deafness, beyond a binary classification of disability or not.

Figure 5.18: From the medical view of deafness, being deaf is considered a disability, how would you respond to that? Agree or disagree, by perspective/model/view identified with



This study explored the perspectives of STAs and AUDs on whether they consider deafness a disability from a medical standpoint. The results, as presented in Figure 5.18, were analysed according to the preferred model or view of Deafness/deafness held by these professionals.

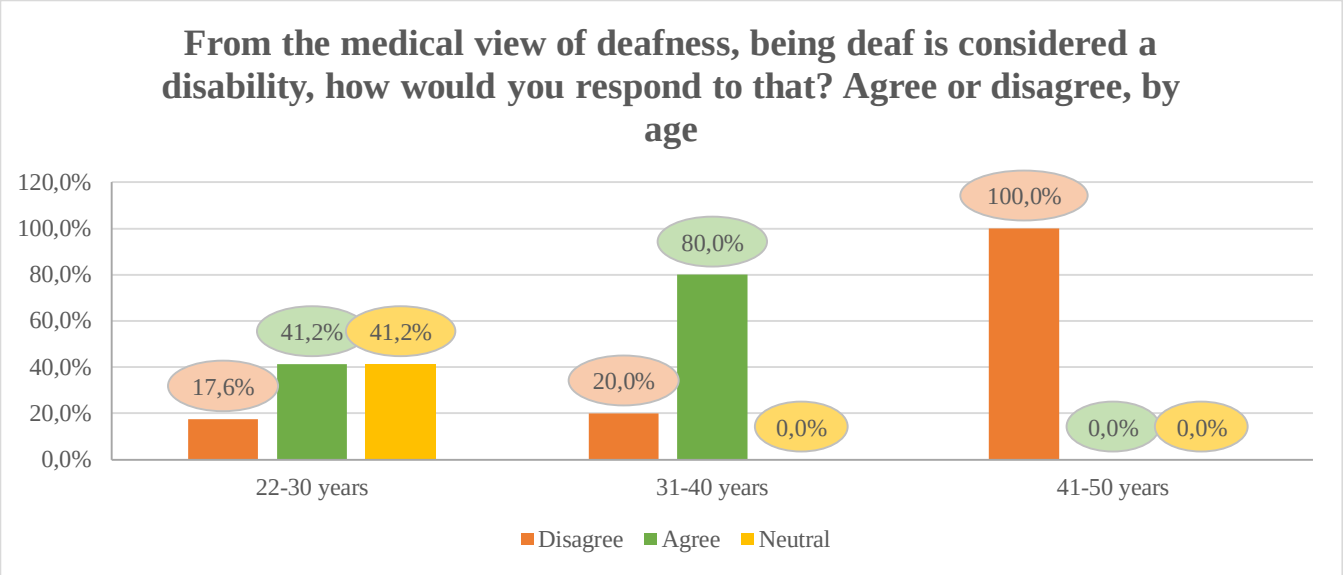
Key findings include:

- Among STAs and AUDs who embrace both the cultural and medical views, nearly half (46.7%) agree with the statement that deafness is a disability, while 26.7% disagree.
- All professionals (100%) who hold a purely medical view agree that deafness is a disability from a medical standpoint.

Interestingly, all (100%) STAs and AUDs who hold a cultural view of Deafness remained neutral regarding the medical view that deafness is a disability. These results reveal diverse attitudes toward deafness between groups, with cultural proponents showing more neutrality and medical proponents overwhelmingly agreeing with the disability classification. However, the chi-square analysis (p-value 0.311, greater than 0.05) indicates no statistically significant association between

the professionals' views (cultural or medical) and their agreement or disagreement with the medical view that deafness is a disability. This suggests that the model professionals identify with does not predict their stance on the issue.

Figure 5.19: Is being deaf is considered a disability, how would you respond to that?, by age



The study examined whether respondents' views on deafness as a disability, aligned with the medical perspective, varied by age group among STAs and AUDs.

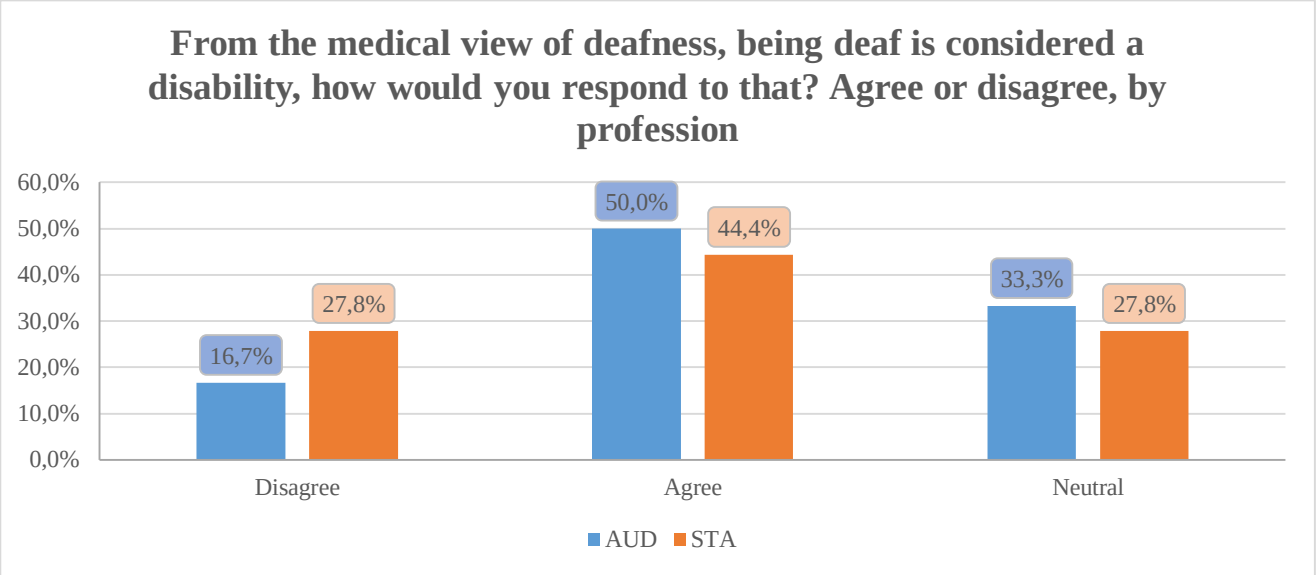
Key findings by age group include:

- Professionals aged 31-40 years: The majority (80.0%) agreed with the medical view that deafness is a disability, while only 20.0% disagreed.
- Professionals aged 41-50 years: All respondents in this age group (100.0%) disagreed with the medical perspective, showing a strong opposition to viewing deafness as a disability.
- Professionals aged 22-30 years: Opinions were split, with 41.2% agreeing with the medical view, 41.2% remaining neutral, and a smaller proportion (17.6%) disagreeing with the statement.

Although age-related differences were observed in the responses, chi-square analysis (p-value 0.152, greater than 0.05) revealed no statistically significant association between age and agreement or disagreement with the medical view of deafness as a disability. This indicates that

age does not strongly influence whether professionals agree or disagree with the medical perspective on deafness.

Figure 5.20: Is being deaf is considered a disability, how would you respond to that? by type of profession



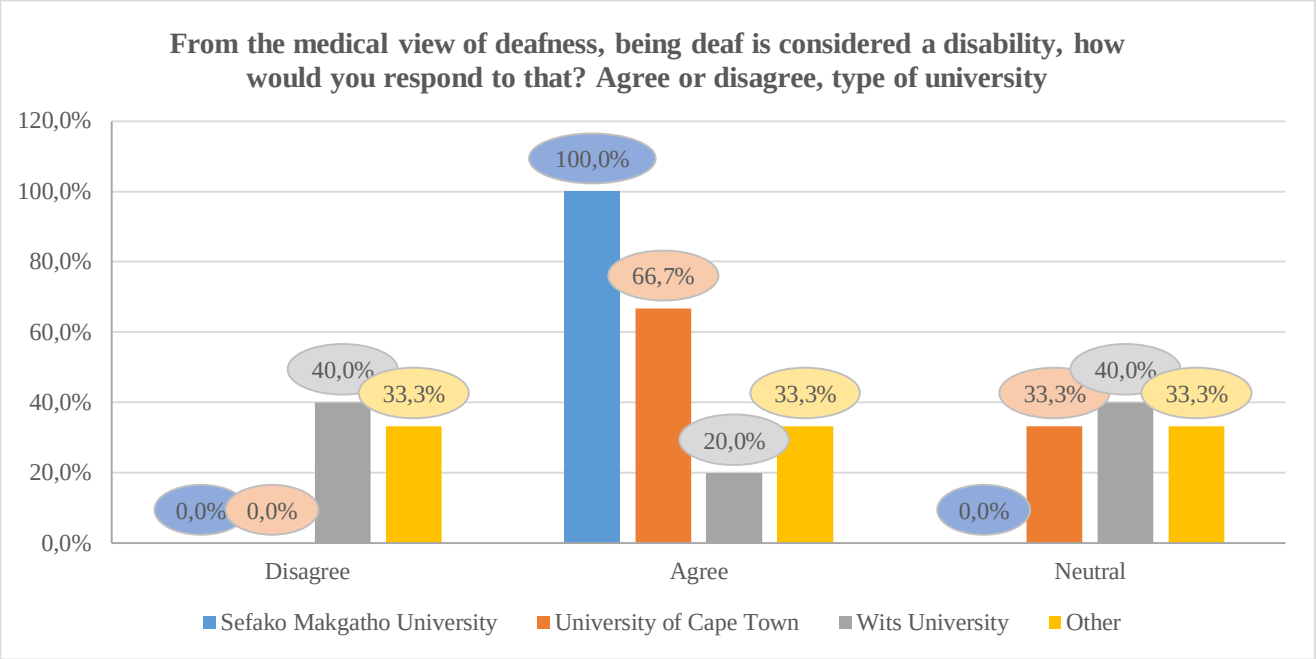
In this study, STAs and AUDs were asked whether they agreed, disagreed, or were neutral about viewing deafness as a disability, based on their professions.

Key findings include:

- Agreement with the medical view: Half of AUDs (50.0%) and nearly half of STAs (44.4%) agreed that deafness is a disability, indicating minimal difference in agreement between the two professional groups.
- Disagreement with the medical view: STAs were more likely to disagree (27.8%) compared to AUDs (16.7%), suggesting that STAs are less likely to adopt the medical view of deafness.
- Neutrality: AUDs tended to show more neutrality regarding the view of Deaf/deafness, consistent with the results shown in Figure 5.12, where AUDs held views other than the medical or cultural models.

The chi-square analysis (p-value 0.92, greater than 0.05) revealed no statistically significant association between STAs and AUDs' profession and their agreement or disagreement with the medical view of deafness as a disability. This suggests that qualifications do not strongly influence whether professionals agree or disagree with the medical perspective.

Figure 5.21: Is being deaf is considered a disability, how would you respond to that?, by type of university



The study also analyzed the responses of STAs and AUDs based on the universities they attended, focusing on their views about deafness as a disability from a medical perspective.

Key findings include:

- Sefako Makgatho University: All STAs and AUDs who attended this university (100.0%) agreed with the medical view that deafness is a disability. Additionally, two-fifths (40.0%) of professionals from this university identified with the medical view of deafness, as shown in Figure 5.13.
- Wits University: STAs and AUDs from Wits University were the least likely to agree with the medical view, with only 20.0% agreeing and 40.0% disagreeing with the statement that deafness is a disability.

Despite the differences in support for the medical view across universities, a chi-square analysis (p-value 0.401, greater than 0.05) revealed no statistically significant relationship between the university attended and the professionals' agreement or disagreement with the medical view of deafness. This suggests that the university they attended does not strongly influence their perspective on whether deafness is a disability.

5.2.6. Knowledge of SASL

This section addresses the objective of evaluating STAs and AUDs' knowledge of and perceptions regarding Deaf culture and SASL. It is important to distinguish that SASL users may not necessarily identify with or be part of Deaf culture, though they may use the language. From this perspective, the study aimed to explore how familiar STAs, and AUDs are with SASL and their attitudes toward it.

To achieve this, the study presented results on various aspects, including:

- Practical training vs. SASL theory: Understanding whether STAs and AUDs received more practical, hands-on training in using SASL, or if their exposure was limited to theoretical knowledge about the language.
- Content covered in undergraduate training: Evaluating the curriculum that STAs and AUDs experienced in their undergraduate studies, specifically concerning SASL.
- Clinical training with the Deaf community: Exploring the length and depth of the clinical exposure STAs and AUDs had with the Deaf community, where they would have had the opportunity to practice and learn SASL in a real-world context.

These results help shed light on the level of competency and comfort STAs and AUDs have with SASL, as well as their understanding and connection to Deaf culture.

Figure 5.22. Level of study: practical training on SASL versus learning SASL

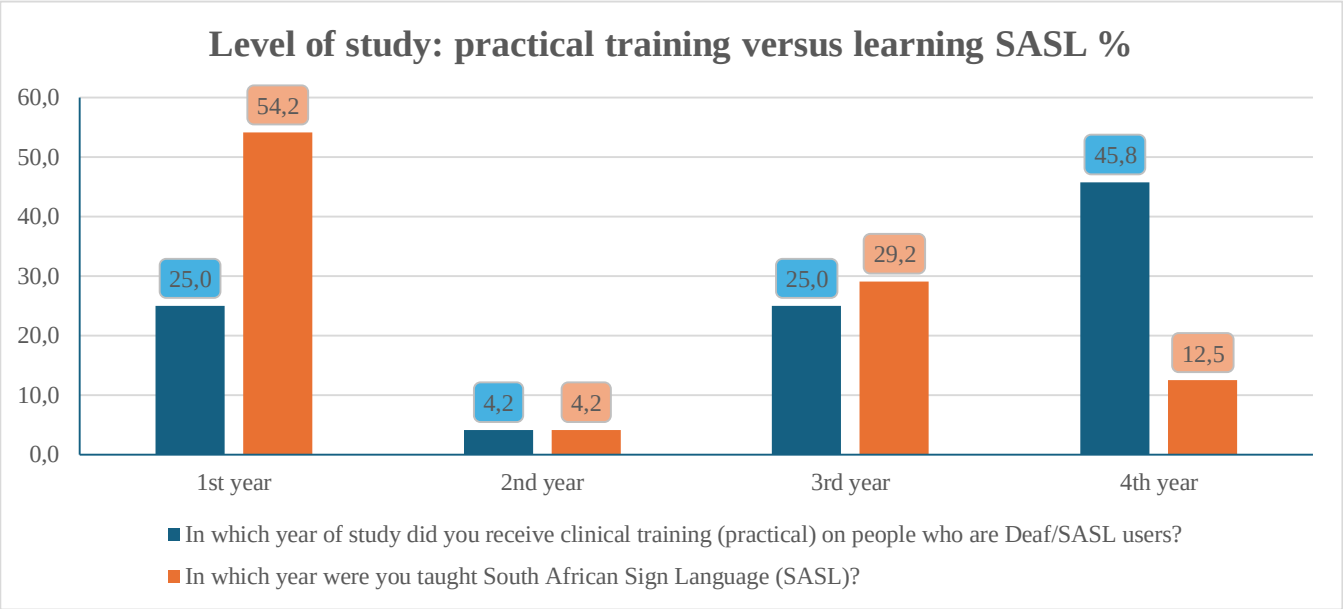


Figure 5.22 presents data on the level of study in which STAs and AUDs received clinical or practical training in SASL and when they learned the theoretical components of SASL.

Key findings from the results include:

- Clinical Training: Nearly half of the participants (45.8%) reported receiving their clinical training with Deaf individuals or SASL users in their 4th year of study. This suggests that hands-on, practical exposure to working with SASL typically occurs later in their academic programmes.
- Theoretical Learning: In contrast, over half (54.2%) of the participants indicated that they were introduced to the theoretical component of SASL during their 1st year of study. This highlights that the foundational knowledge of SASL is provided early on in their education, while clinical experience tends to be delayed until the later years of study.

These results suggest that while theoretical knowledge of SASL begins early in their education, practical exposure is often reserved for the final stages of their academic training.

Figure 5.23. In which year were you taught SASL, by age?

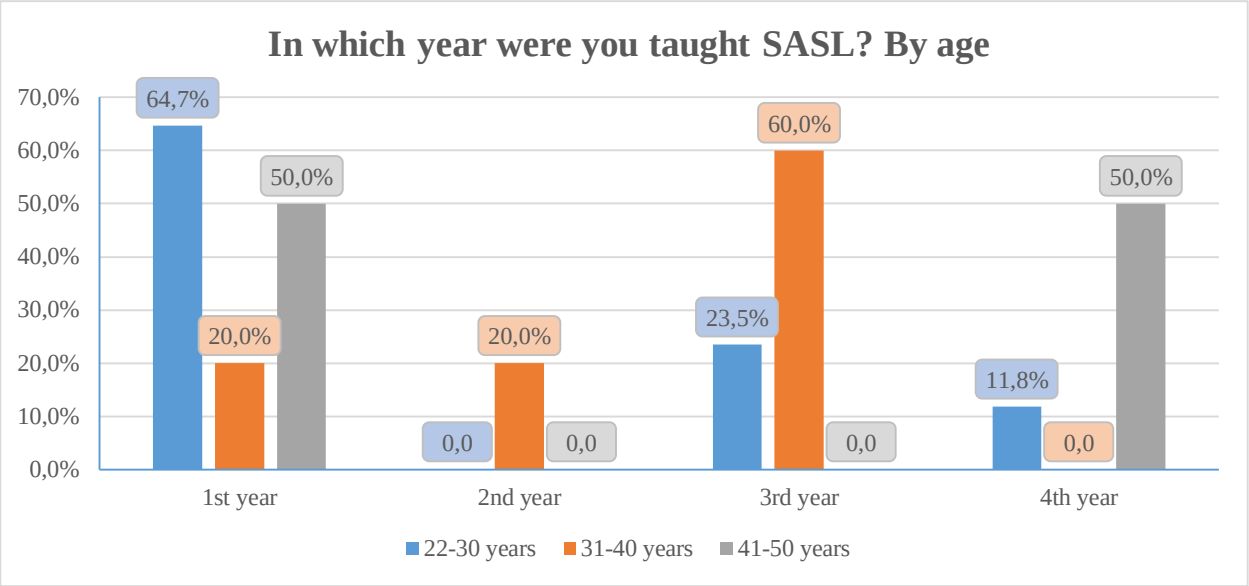


Figure 5.23 presents data on when STAs and AUDs received their theoretical training in SASL, based on their age group.

Key findings include:

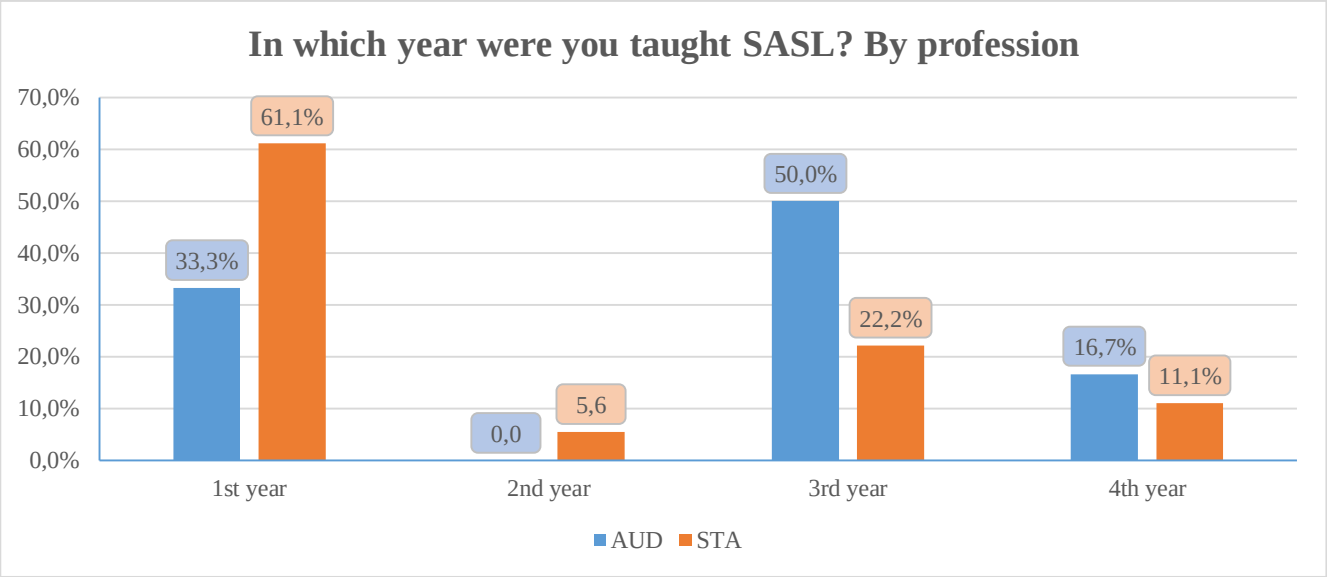
- Younger professionals (aged 22-30 years): Nearly two-thirds (64.7%) reported being taught SASL in their first year of study, indicating a trend where younger professionals received earlier exposure to SASL theory.
- Mid-career professionals (aged 31-40 years): Three-fifths (60.0%) of this group stated they were taught SASL in their third year of study.
- Older professionals (aged 41-50 years): Half of these professionals (50.0%) received their SASL training in their fourth year of study, suggesting that SASL was introduced later in their educational program compared to younger participants.

These findings suggest a possible shift in educational curricula over time, with younger STAs and AUDs being taught SASL earlier in their studies, while older professionals learned it later in their

academic progression. This may reflect changes in how training programmes prioritize SASL over the years.

However, the chi-square analysis (p-value 0.105, greater than 0.05) indicates no statistically significant association between the year in which participants received their SASL training and their age. This suggests that while trends may be observed, age is not a determining factor in when professionals received SASL training during their studies.

Figure 5.24. In which year were you taught SASL? By type of profession



In Figure 5.24, the study examined when STAs and AUDs received their SASL training, based on their professions.

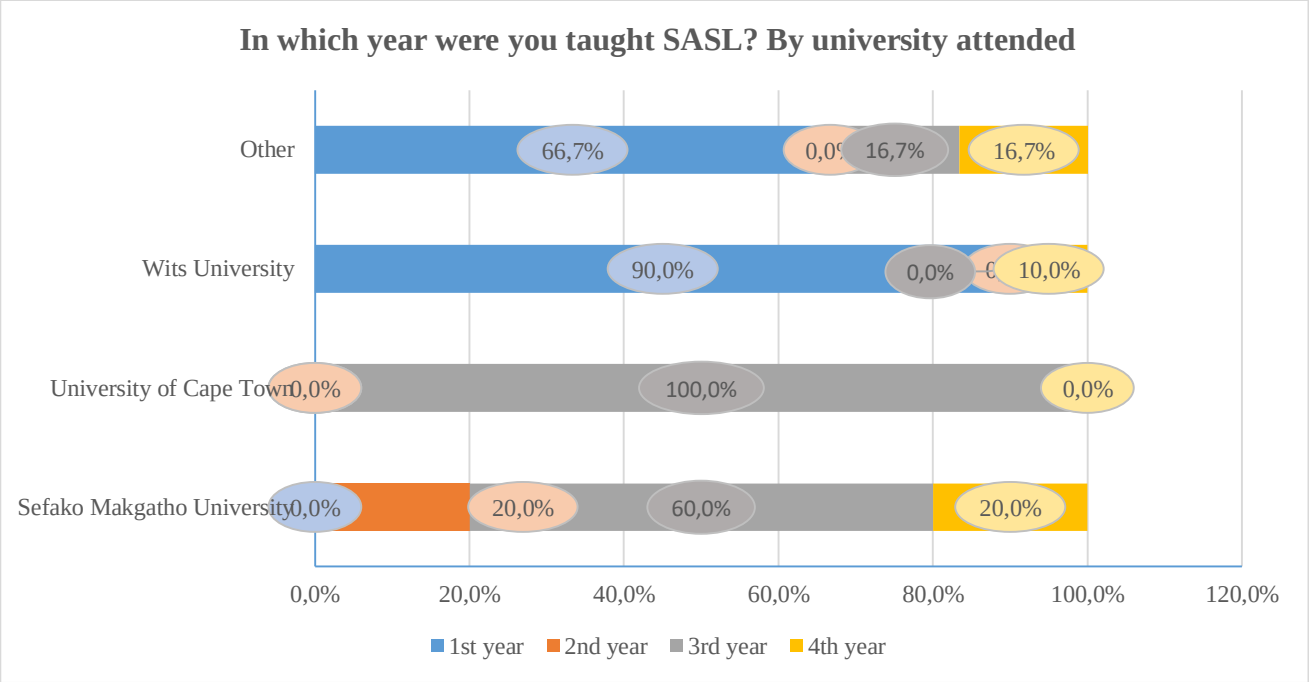
Key findings include:

- STAs: Over three-fifths (61.1%) of STAs were taught SASL in their first year of study, indicating that SASL training typically occurs early in their education. Only a small proportion (22.2%) reported learning SASL in their third year, and less than a fifth (11.1%) in the fourth year. SASL was not reported as being taught in the second year (0.0%).
- AUDs: In contrast, only a third (33.3%) of AUDs were taught SASL in their first year. The majority of AUDs (50.0%) reported receiving SASL training in their third year, with a

smaller proportion (16.7%) learning it in their fourth year. Like STAs, AUDs reported no SASL training in the second year (0.0%).

These results suggest that SASL training tends to occur earlier in the academic path for STAs, whereas AUDs are more likely to receive SASL training later in their studies, specifically in the third and fourth years. This distinction indicates a different approach to SASL instruction between the two professions. However, the chi-square analysis (p-value 0.517, greater than 0.05) indicates no statistically significant relationship between the year STAs and AUDs were taught SASL theory and the type of qualification they hold. This suggests that qualification type does not significantly influence when SASL is taught during their studies.

Figure 5.25. In which year were you taught SASL? By type of University attended



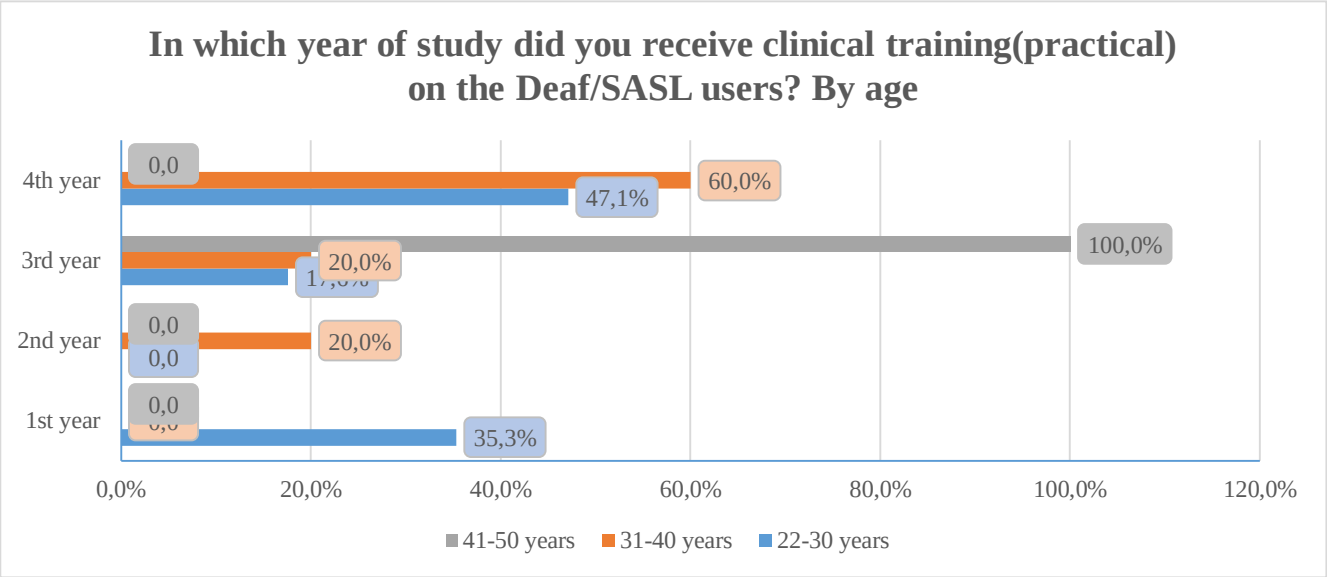
In this study, STAs and AUDs were asked about when they were taught SASL during their studies, based on the university they attended.

Key findings include:

- Wits University: Nine out of ten STAs and AUDs (90.0%) who attended Wits University reported being taught SASL in their first year of study.
- University of Cape Town (UCT): All STAs and AUDs from UCT were taught SASL in their third year of study.
- Sefako Makgatho University: Three-fifths (60.0%) of STAs and AUDs who attended Sefako Makgatho University also reported being taught SASL in their third year.

These results highlight differences in when SASL is introduced across universities. Wits University tends to introduce SASL in the first year, while UCT and Sefako Makgatho University introduce SASL later, predominantly in the third year. Despite these differences, the chi-square analysis (p-value 0.011, less than 0.05) suggests no significant relationship between the year STAs and AUDs were taught SASL theory and the university they attended. This indicates that while trends may vary between universities, the timing of SASL instruction is not statistically linked to the specific institution.

Figure 5.26. In which year of study did you receive clinical training (practical) on people who are Deaf/SASL users? By age



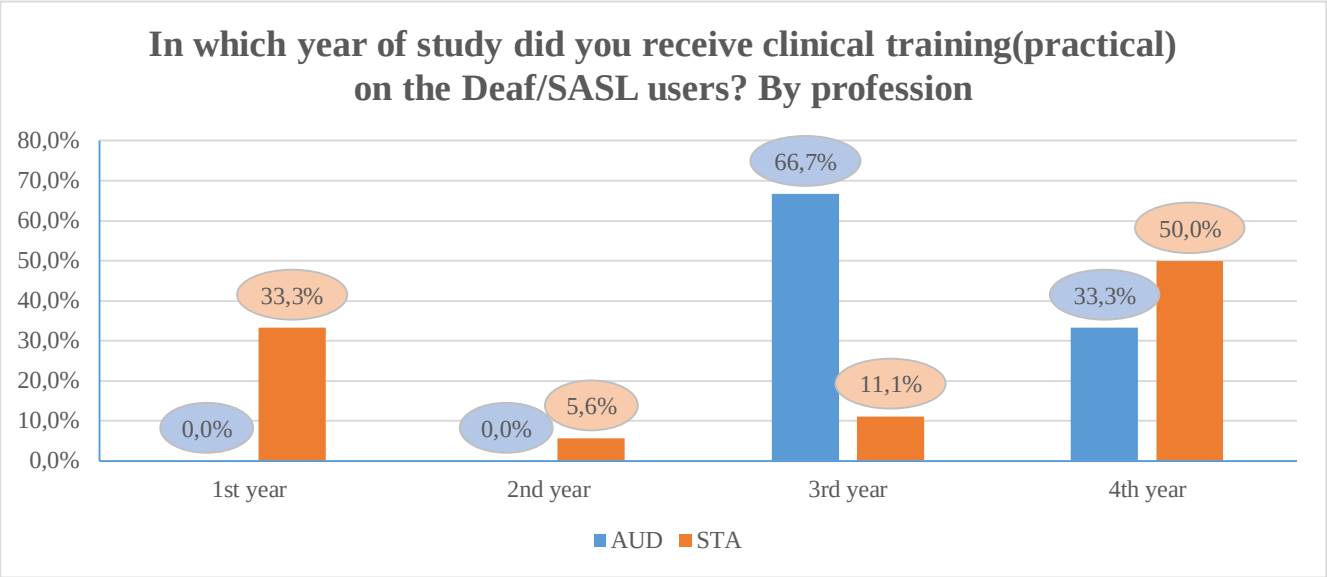
The study also explored when STAs and AUDs received clinical (practical) training with Deaf individuals or SASL users, by age group, as presented in Figure 5.26.

Key findings include:

- Younger STAs and AUDs (aged 22-30 years): Over a third (35.3%) received clinical training with Deaf/SASL users in the first year of their studies, making them the only group in the study to receive training this early. Additionally, nearly two-thirds (64.7%) of this group were taught SASL theory in the first year (as seen in Figure 5.23), showing early exposure to both theory and practical training. Nearly half (47.1%) of participants in this age group also received clinical training in their fourth year, indicating both early and later exposure to practical training.
- STAs and AUDs aged 31-40 years: Three-fifths (60.0%) of this group received their clinical training in the fourth year of study, showing a trend toward later practical exposure.
- Older STAs and AUDs (aged 41-50 years): All participants in this age group (100.0%) reported receiving their clinical training in the third year of study, reflecting consistency in timing for this age cohort.

The chi-square analysis (p-value ≤ 0.05) demonstrated a significant relationship between the year participants received SASL clinical training and their age, indicating that age is a factor influencing when STAs and AUDs are exposed to practical training. Younger professionals tend to receive training earlier, while older participants typically receive it later in their studies. This suggests that changes in educational curricula over time may account for these differences in training timelines, with younger cohorts experiencing earlier exposure to Deaf/SASL users.

Figure 5.27. In which year of study did you receive clinical training (practical) the Deaf/SASL users? By profession



In Figure 5.27, the study examined when STAs and AUDs received clinical training with Deaf individuals or SASL users, based on their professions.

Key findings include:

- AUDs: None of the AUDs (0.0%) received clinical training with Deaf/SASL users in the first year of their studies. The majority (66.7%) received this training in their third year, while a third (33.3%) reported receiving it in the fourth year. These results align with the earlier finding that most AUDs were taught SASL theory in their third year (as seen in Figure 5.24).
- STAs: Over half of the STAs (50.0%) reported receiving clinical training with Deaf/SASL users in the fourth year of their studies, while a third (33.3%) received this training in the first year. This suggests that STAs are more likely to receive early exposure to clinical training compared to AUDs.

The chi-square analysis (p-value 0.043, less than 0.05) revealed a significant relationship between the timing of clinical training on Deaf/SASL users and the participants' respective professions. This finding indicates that qualification type plays a role in determining when STAs and AUDs

receive practical training with Deaf/SASL users, with STAs tending to receive this training earlier in their studies compared to AUDs.

Figure 5.28. In which year of study did you receive clinical training (practical) on the Deaf/SASL users? By the University attended

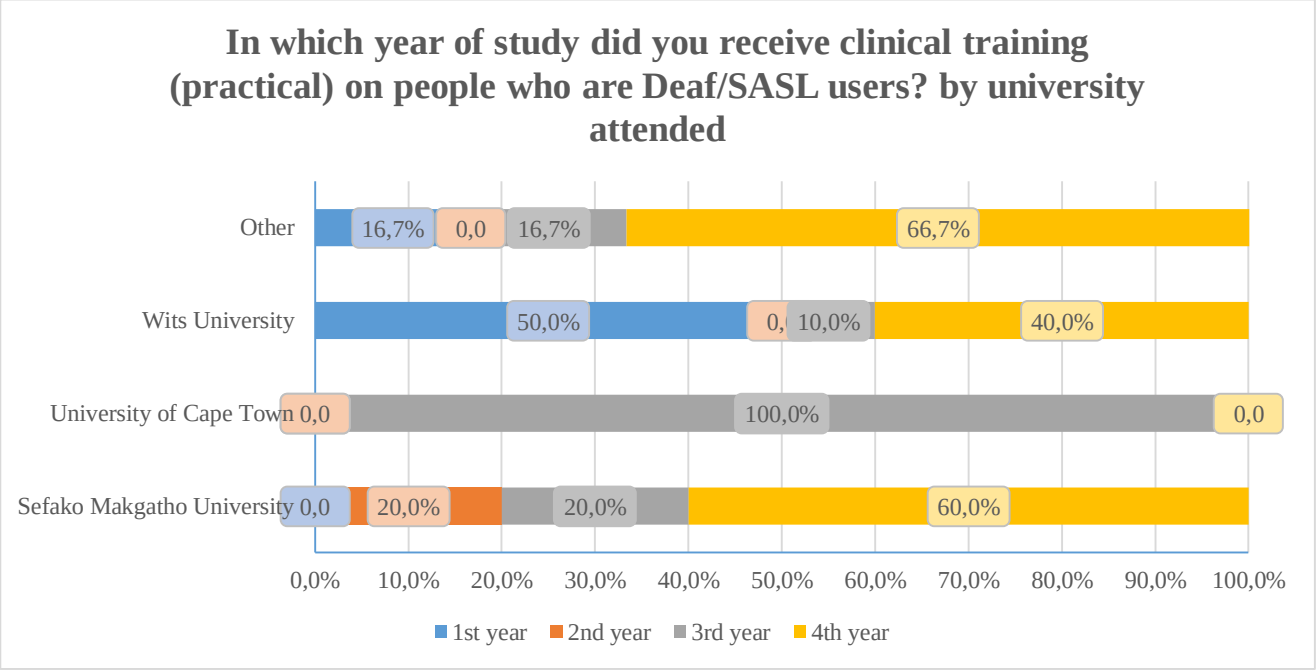


Figure 5.28 presents an analysis of when STAs and AUDs received clinical training with Deaf/SASL users, based on the university they attended.

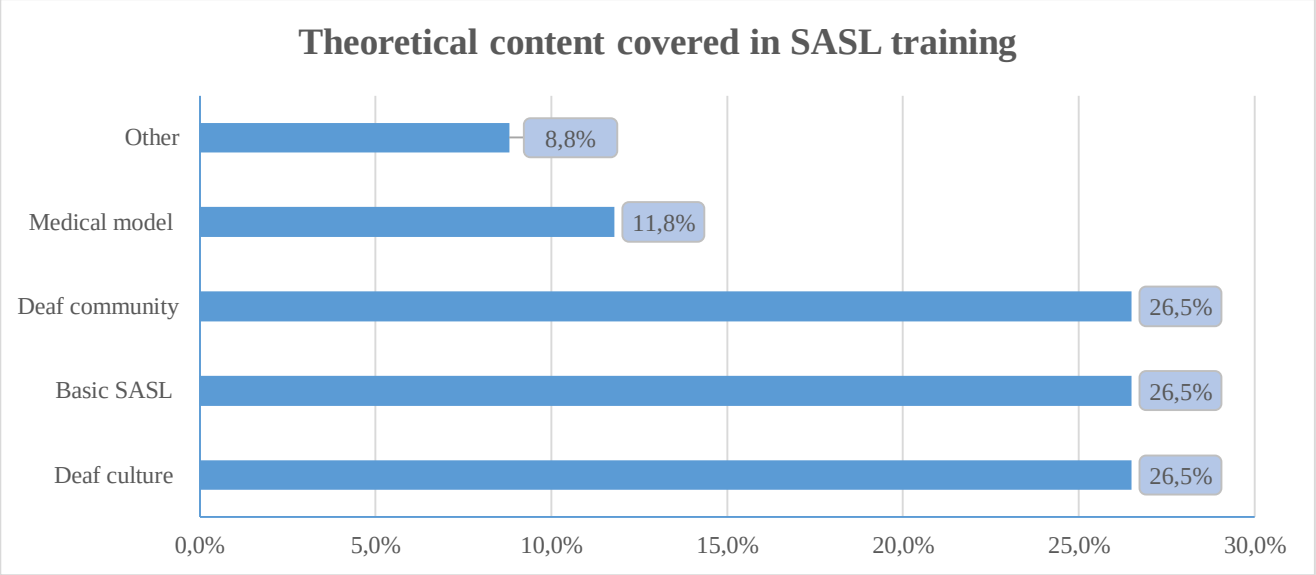
Key findings include:

- University of Cape Town (UCT): All participants from UCT (100.0%) reported receiving their clinical training with Deaf/SASL users in the third year of their studies.
- Sefako Makgatho University: Three-fifths (60.0%) of STAs and AUDs from this university reported receiving their clinical training in the fourth year.
- Wits University: Two-fifths (40.0%) of participants from Wits received clinical training in the fourth year, and interestingly, Wits is the only university that provided clinical training with Deaf/SASL users as early as the first year of study.

- University of Pretoria: Over two-thirds (66.7%) of participants from this university also received clinical training in the fourth year of study.

The chi-square analysis (p-value 0.029, less than 0.05) revealed a significant relationship between the year of study in which STAs and AUDs received clinical training with Deaf/SASL users and the university they attended. This suggests that the university attended has a notable influence on when clinical training with Deaf/SASL users is introduced within the curriculum. For example, UCT provides this training in the third year, while universities like Wits and others tend to focus on later years, such as the fourth year.

Figure 5.29. What was the content covered in your undergraduate training in relation to SASL? Multiple response



To assess STAs and AUDs' knowledge and perceptions of Deaf culture and SASL, the study also examined the content covered in their undergraduate training related to SASL. Figure 5.29 provides a summary of these findings, focusing on multiple response questions where participants could select more than one option to describe their training content.

The results indicated that the most frequently covered topics in the STAs and AUDs' undergraduate programmes were:

- Deaf culture (26.5%)
- Basic SASL (26.5%)

- Deaf community (26.5%)

These three areas were mentioned by a quarter of the respondents as the primary content included in their undergraduate training related to SASL. The emphasis on these topics suggests a moderate level of exposure to Deaf culture and communication methods such as SASL within the undergraduate programmes of STAs and AUDs, but it may also point to a need for more comprehensive coverage in these critical areas for professionals working with Deaf individuals.

Figure 5.31.

What was the content covered in your undergraduate training in relation to SASL? Multiple response, by profession

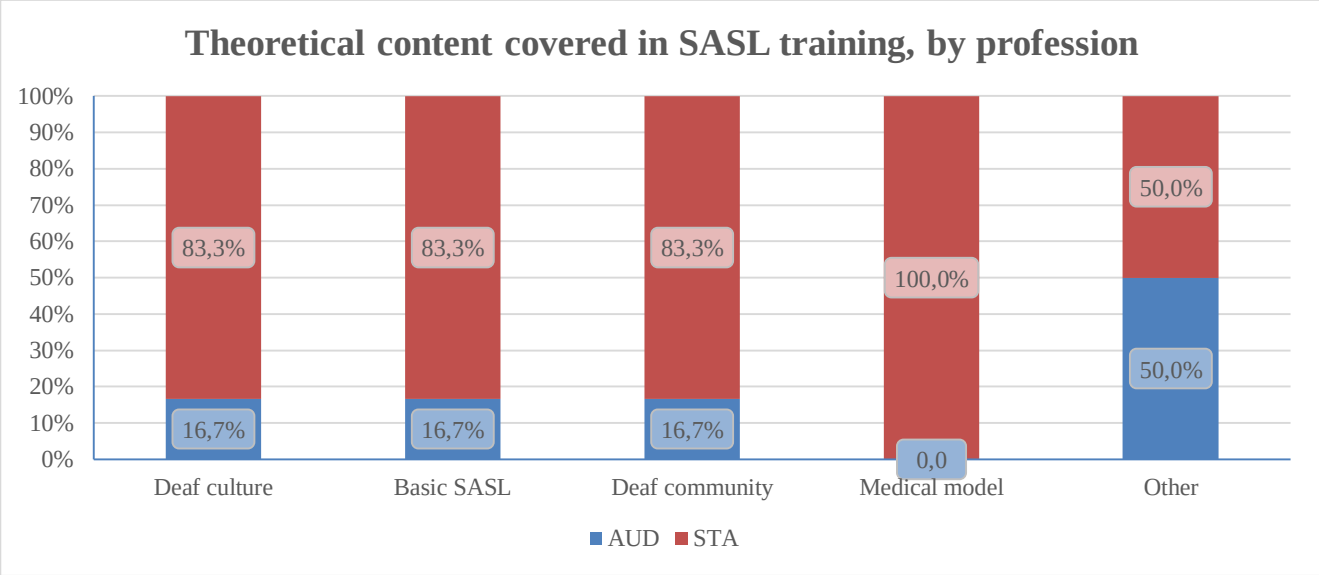


Figure 5.31 presents the results regarding the content most frequently mentioned by participants as being covered in their undergraduate training related to SASL, based on their professions (STAs vs. AUDs).

Key findings indicate that:

- STAs overwhelmingly dominated the responses for content covered in their training. Over four-fifths of STAs mentioned the following areas:

- Deaf culture (83.3%)
- Basic SASL (83.3%)
- Deaf community (83.3%)

- AUDs, in contrast, did not report any significant coverage of the medical model in their undergraduate training.

These results suggest that STAs receive more comprehensive training on SASL-related content, particularly in relation to Deaf culture and the Deaf community. This may reflect a stronger emphasis on cultural and communicative aspects in STA programmes, while AUD programmes might focus more on clinical or audiological aspects, which may explain why no AUDs reported the medical model as part of their training content.

Figure 5.32. How long was the clinical training with the Deaf community?

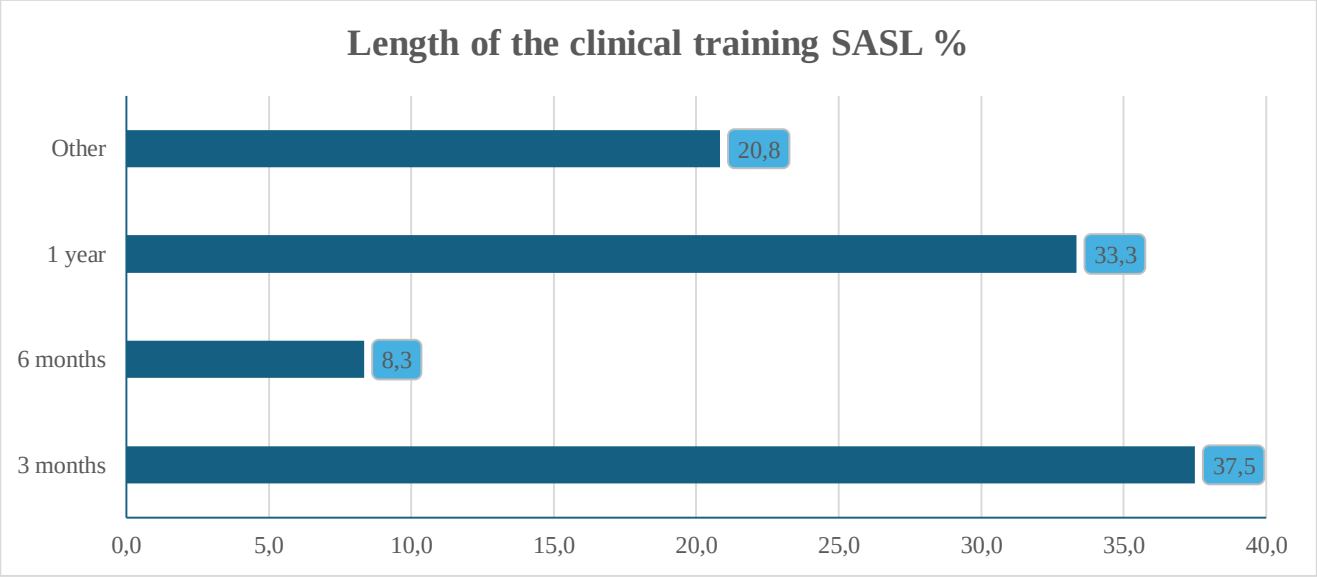


Figure 5.32 provides a summary of the responses regarding the duration of clinical training with the Deaf community or SASL users. Participants were asked how long their clinical training with the Deaf community lasted, and the responses varied from 3 months to 1 year.

The key findings are:

- 37.5% of STAs and AUDs reported that their clinical training with the Deaf community lasted 3 months.
- 33.3% of participants indicated that their training took 1 year.
- A smaller portion, 8.3%, reported that their training lasted 6 months.

These results highlight that while most participants had a training duration of either 3 months or 1 year, a smaller group experienced intermediate durations, such as 6 months. This variation suggests differing levels of immersion and exposure to the Deaf community during clinical training, with longer durations potentially providing deeper engagement and understanding of Deaf culture and communication.

Figure 5.33. How long was the clinical training with the Deaf community? By age

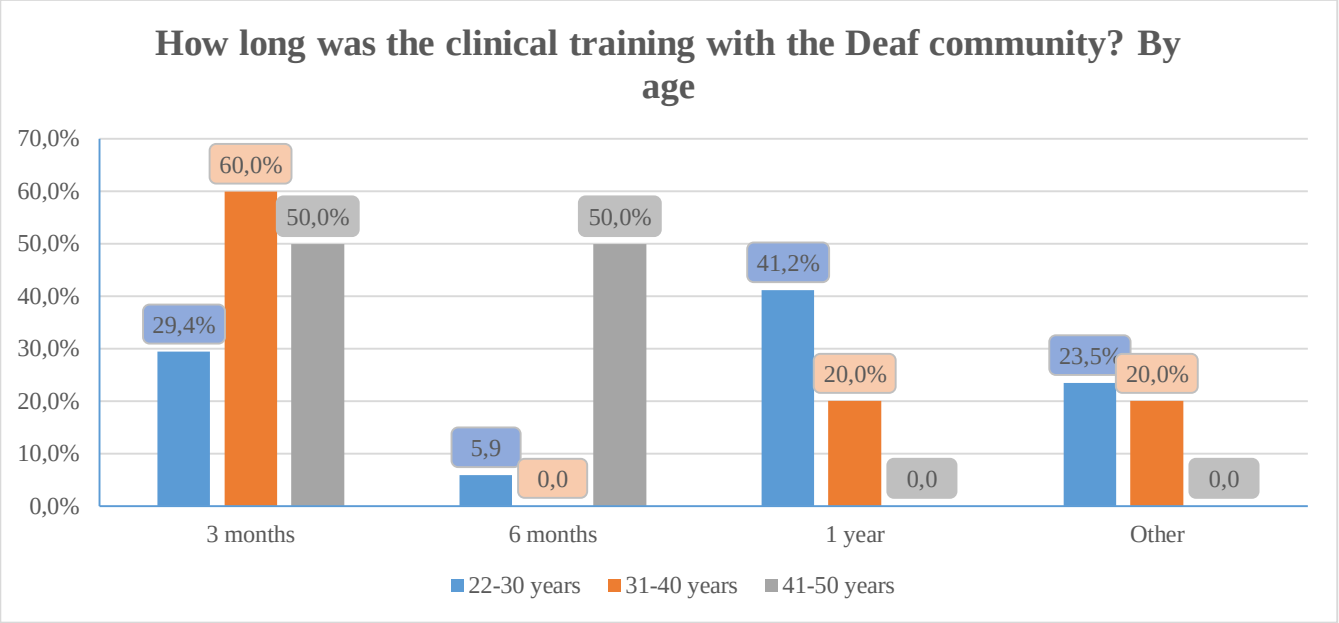


Figure 5.33 reports the duration of clinical training with the Deaf community for STAs and AUDs, broken down by age group. While Figure 5.32 indicated that most participants' training lasted 3 months, this figure provides further insights by age:

- 60.0% of those whose training lasted 3 months were aged 31-40 years.
- 50.0% of those aged 41-50 years also completed their training in 3 months.

- Only 29.4% of participants aged 22-30 years reported a 3-month training period.

Interestingly, a larger proportion of younger participants aged 22-30 years (41.2%) reported that their clinical training with the Deaf community lasted 1 year. These results suggest a trend where younger professionals (22-30 years) tend to have longer clinical training durations (1 year), while older professionals (31-50 years) tend to complete the same training in a shorter period (3 months). This could indicate a shift toward more extensive training for newer generations of STAs and AUDs.

Figure 5.34. How long was the clinical training with the Deaf community? By profession

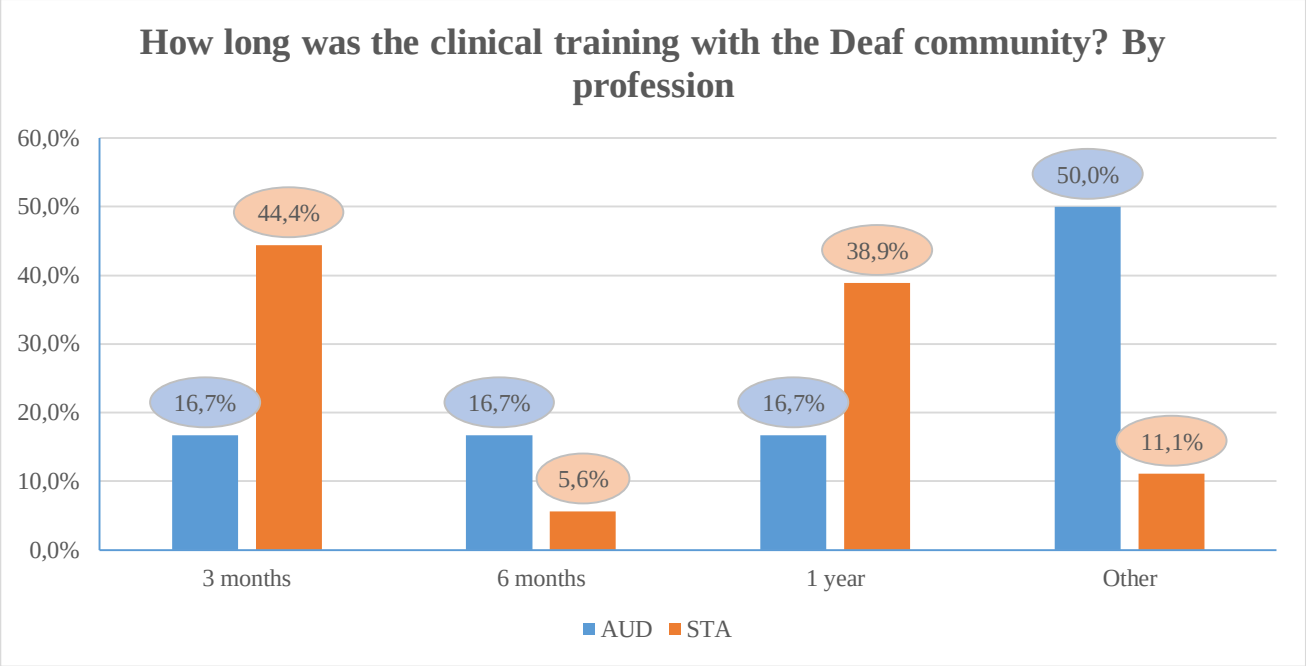


Figure 5.34 analyzes the duration of clinical training with the Deaf community by the profession of STAs and AUDs. The results reveal key differences between the two groups:

- AUDs:
    - The length of clinical training for AUDs is evenly spread across the time periods of 3 months, 6 months, and 1 year, with 16.7% of AUDs completing their training within each of these time frames.

- Interestingly, 50.0% of AUDs reported completing their training at a time outside of the standard categories (3 months, 6 months, and 1 year), suggesting that AUDs might have more flexible or alternative training durations.

- STAs:
  - Over two-fifths (44.4%) of STAs reported completing their clinical training within 3 months, while another significant portion (39.9%) completed it within 1 year.
  - A very small percentage of STAs (5.6%) mentioned 6 months as the duration of their training.

These findings suggest that AUDs tend to engage in longer or non-standard training periods, while STAs more frequently complete their training within a shorter time frame (3 months or 1 year). This indicates a possible difference in the structure or expectations of clinical training between these two professions, with AUDs potentially having more varied or extended training periods.

The chi-square analysis (p-value = 0.137, greater than 0.05) shows that there was no significant association between the duration of clinical training with the Deaf community and participants' professions. This means that the length of clinical training does not significantly differ based on whether participants are STAs or AUDs.

Figure 5.35. How long was the clinical training with the Deaf community? By University attended

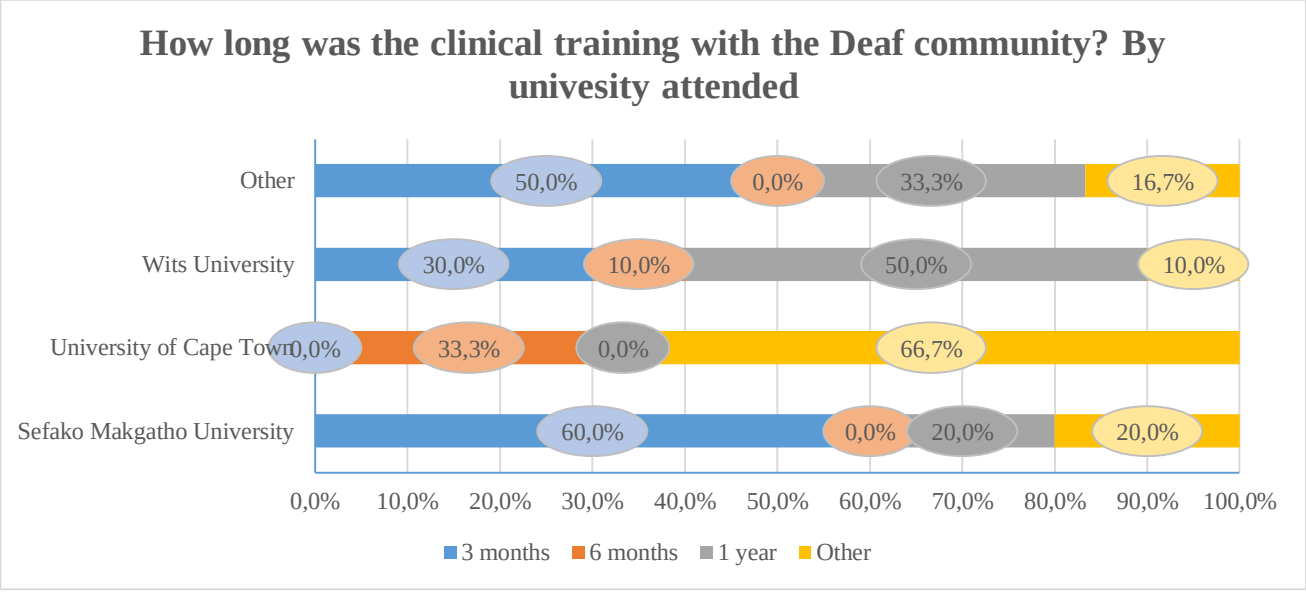


Figure 5.35 analyzes the duration of clinical training with the Deaf community for STAs and AUDs based on the university they attended. The findings reveal notable differences among institutions:

- STAs and AUDs at Various Universities:
    - Sefako Makgatho University: Three-fifths (60.0%) of STAs and AUDs reported completing their clinical training in 3 months.
    - Wits University: Nearly a third (30.0%) of participants indicated that their training also took 3 months.
    - University of Pretoria: Half of the participants from this reported completing their training within 3 months as well.
- University of Cape Town:
    - A significant majority (66.7%) of participants from this university reported that their training duration fell outside the specified categories (3 months, 6 months, and 1 year), suggesting more variability in their training duration.
- Duration Across All Universities:
    - None of the universities reported any graduates who completed their clinical training for 1 year or more.

The chi-square analysis (p-value = 0.266, greater than 0.05) indicates that there was no significant relationship between the duration of clinical training with the Deaf community and the university attended. This suggests that the length of clinical training does not significantly differ based on the institution, even though there are observable trends in training durations across different universities.

5.2.6. Motivation to use SASL when providing services

One of the primary objectives of this study is to explore the motivations of STAs and AUDs to use SASL when providing services to individuals who are Deaf or SASL users. The recognition of SASL as an official language in South Africa represents a significant milestone in promoting inclusivity and aligns with the government's commitment to transforming the education system to be more inclusive of diverse communities. This recognition underscores the importance of empowering the marginalized Deaf culture and ensuring that services are accessible to all.

To achieve the objective of exploring STAs and AUDs' motivations, the study investigated their attitudes and practices related to assisting individuals who identify with the Deaf community or use SASL. Participants were asked a series of questions aimed at understanding their experiences and motivations, including:

1. **Assistance to the Deaf Community:** Have they ever assisted someone who identifies with the Deaf community or is a SASL user?
2. **Communication Frequency:** How many Deaf or deaf patients they have communicated with and provided services to.
3. **Communication Ability:** Their ability to communicate directly with Deaf/SASL users.
4. **Alternative Communication Methods:** Whether they use other methods of communication (excluding SASL) when interacting with Deaf individuals.
5. **Interpretation Services:** Whether they have required interpretation services when communicating with the Deaf community in their professional capacity.

By analysing these responses, the study aims to gain insights into the motivations and attitudes of STAs and AUDs toward using SASL, which is crucial for fostering effective communication and support for the Deaf community.

Figure 5.36: In clinical practice, have you ever assisted someone who identifies with the Deaf community/SASL user?

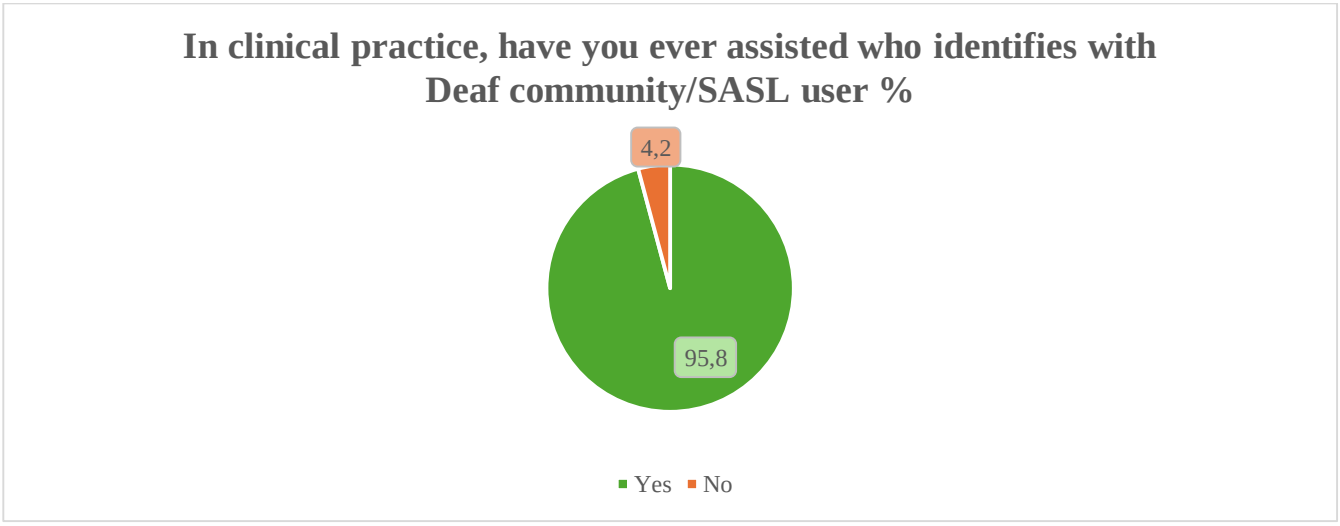


Figure 5.36 presents findings on the motivation of STAs and AUDs to use SASL when providing services to individuals who are Deaf or SASL users. The question posed aimed to determine whether participants had ever assisted someone who identifies with the Deaf community or is a SASL user.

The results indicate a strong affirmative response, with 95.8% of STAs and AUDs agreeing that they have assisted individuals from the Deaf community or who use SASL. This high percentage suggests a significant level of engagement and motivation among these professionals to interact and provide services to Deaf individuals.

The overwhelming agreement may reflect a commitment to inclusivity and support for the Deaf community, highlighting the importance of SASL in facilitating effective communication and services. This finding underscores the positive attitudes of STAs and AUDs towards using SASL, which aligns with the broader objectives of enhancing accessibility and empowerment within the Deaf culture.

Figure 5.37: In clinical practice, have you ever assisted someone who identifies with the Deaf community/SASL user? By profession

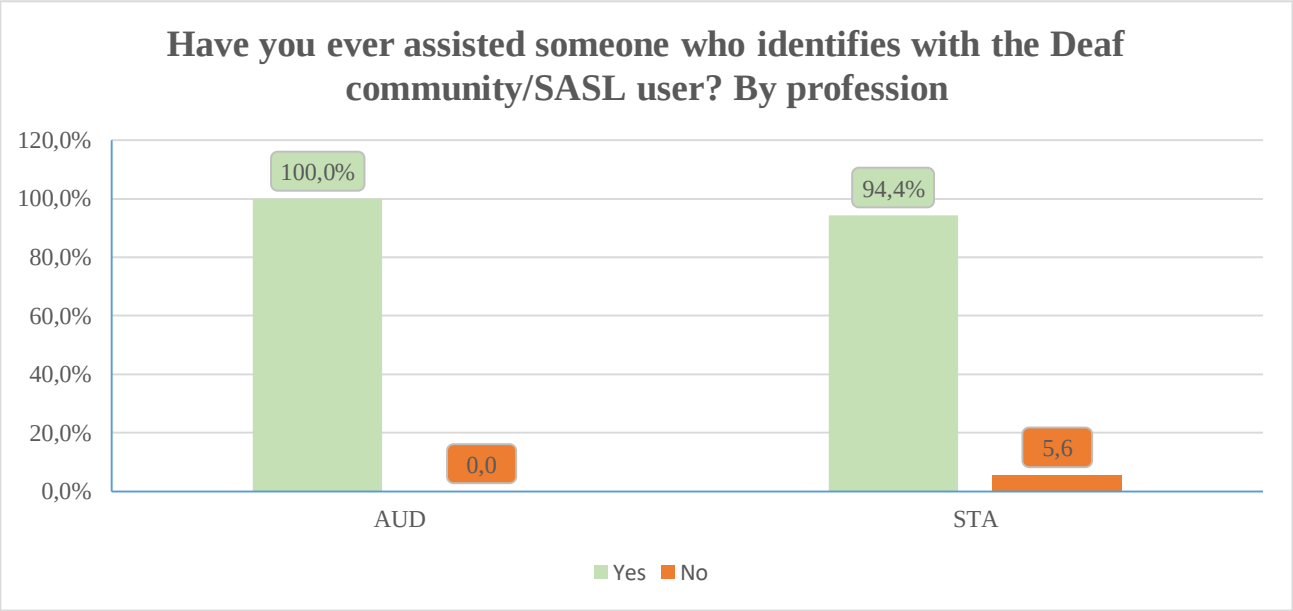


Figure 5.37 presents the results of STAs and AUDs who have assisted individuals identifying with the Deaf community or SASL users, categorized by their professions. The majority of both STAs (95.4%) and AUDs (100.0%) reported having assisted someone from the Deaf community. Only a small proportion of STAs (5.6%) indicated that they had not assisted a Deaf community member or SASL user.

A chi-square test was conducted to assess the relationship between assisting the Deaf community and the type of qualification held by participants. The chi-square results (p-value 0.555 > 0.05) indicated that there was no significant relationship between the qualifications of STAs and AUDs and whether or not they had assisted someone from the Deaf community or who uses SASL. This suggests that regardless of their professional qualifications, most participants in the study had experience assisting Deaf individuals or SASL users.

Figure 5.38: In clinical practice, roughly how many Deaf/deaf patients have you communicated w th and provided services to?

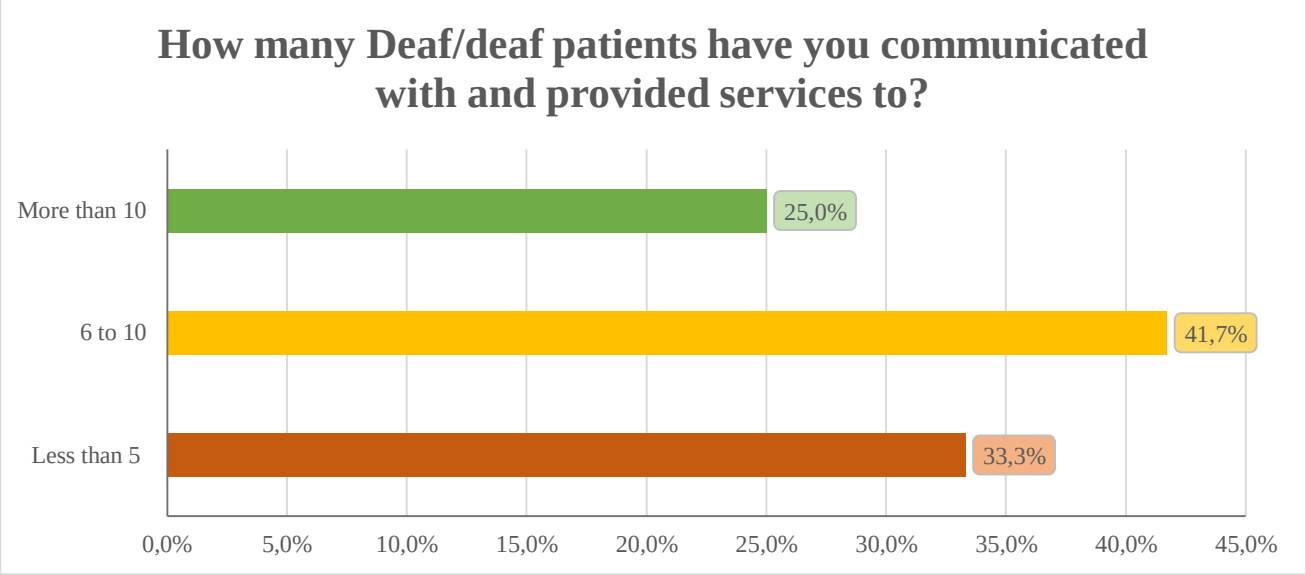


Figure 5.38 provides a breakdown of the number of Deaf/deaf patients that STAs and AUDs have communicated with and provided services to:

- Over two-thirds of STAs and AUDs reported having communicated with and provided services to 6-10 Deaf/deaf patients.
- A third (33.3%) indicated they had provided services to fewer than 5 Deaf/deaf patients.

- A quarter (25.0%) stated they had provided services to more than 10 Deaf/deaf patients.

These results suggest that the majority of STAs and AUDs have moderate experience in working with Deaf/deaf patients, typically handling 6-10 cases, while a smaller portion have had either fewer or more extensive interactions with this group.

Figure 5.39: In clinical practice, roughly how many Deaf/deaf patients have you communicated with and provided services to? By profession

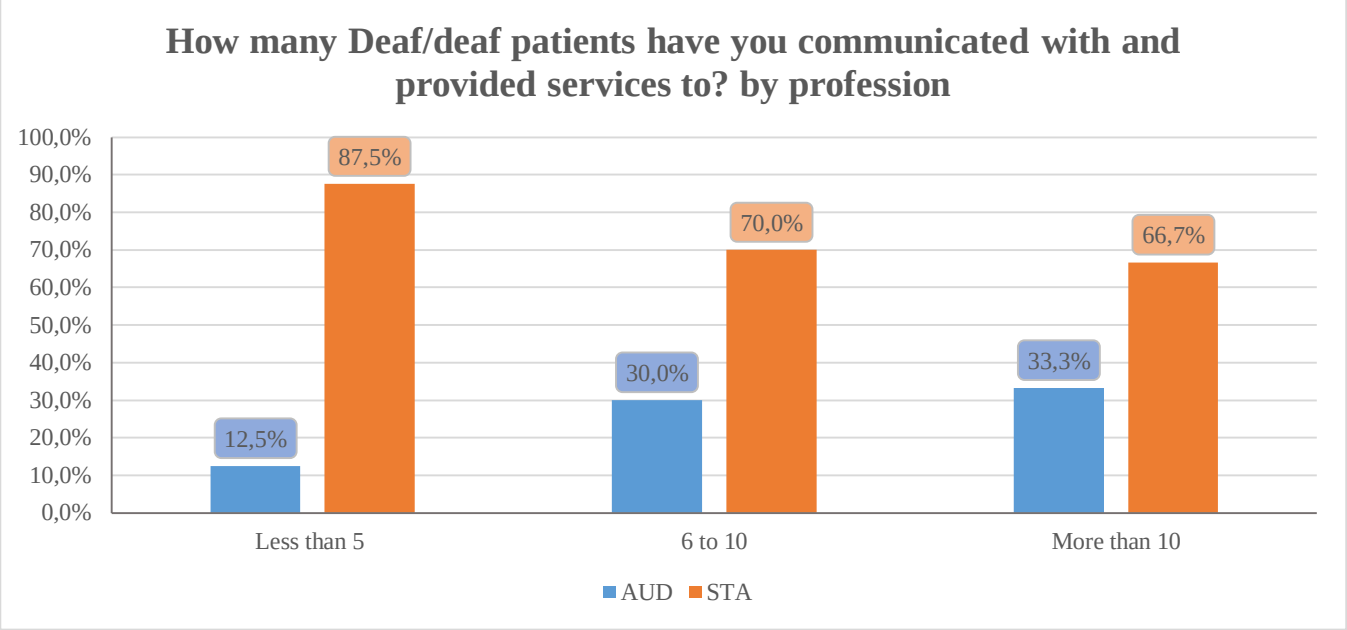


Figure 5.39 provides a summary of how many Deaf/deaf patients STAs and AUDs have communicated with and provided services to, categorized by their professions.

Key findings include:

- A quarter of both STAs and AUDs reported providing services to more than 10 Deaf/deaf patients, with two-thirds of this group being STAs (66.7%).
- Among those who reported having communicated with and provided services to fewer than 5 Deaf/deaf patients, STAs made up more than four-fifths (87.5%), while only slightly over a tenth (12.5%) were AUDs.

A chi-square test (p-value 0.600 > 0.05) showed no significant association between the number of d/Deaf patients the professionals communicated with and provided services to and the type of

qualification they held. This suggests that the number of Deaf/deaf patients they have worked with is not strongly related to whether they are STAs or AUDs.

Figure 5.40: Are you able to communicate with people who are Deaf/SASL users using SASL?

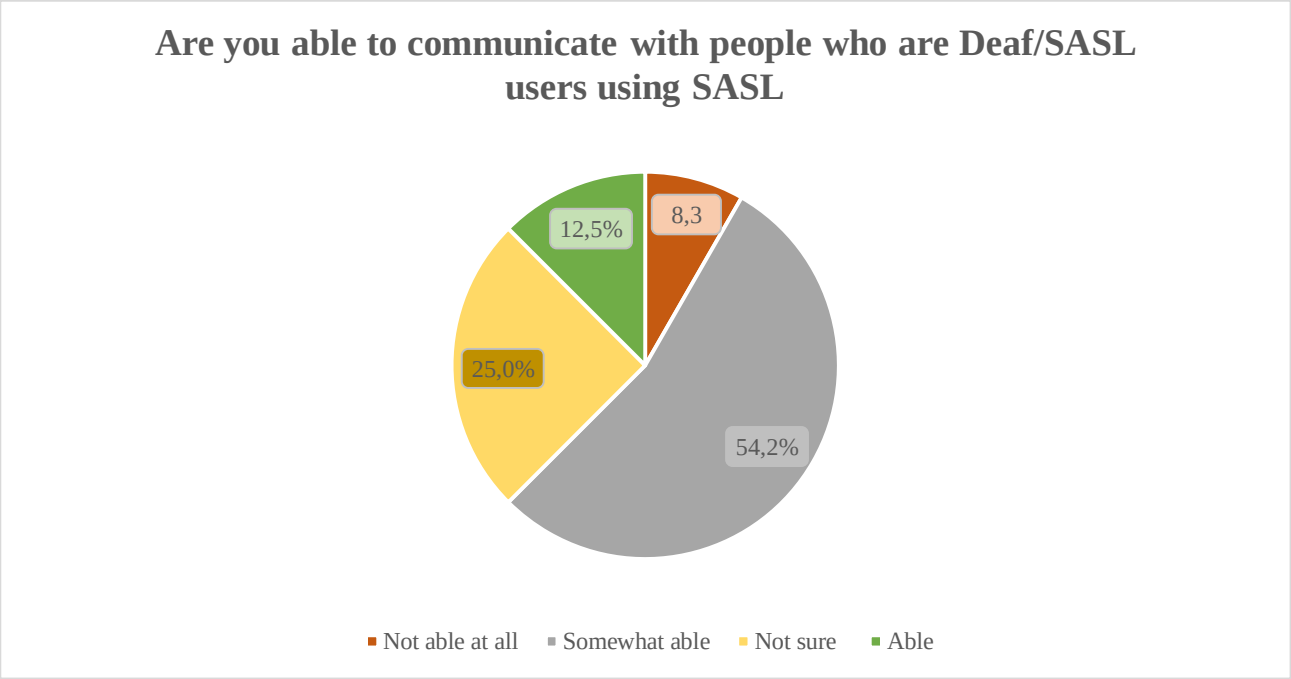


Figure 5.40 presents an analysis of the ability of STAs and AUDs to communicate with Deaf/deaf individuals or SASL users, measured on an ordinal scale ranging from 1 to 5 (with 1 being "not able at all" and 5 being "most able").

Key findings include:

- No participants selected "most able" (5) as their level of ability.
- A small percentage (12.5%) reported that they were able to communicate with people who are Deaf/deaf or SASL users.
- Over half of STAs and AUDs (54.2%) expressed that they were somewhat able to communicate with Deaf/deaf or SASL users.
- A quarter (25.0%) of the respondents indicated they were unsure of their ability to communicate with these individuals.

- A small minority (8.3%) said they were not able at all to communicate with people who are Deaf/deaf or SASL users.

These results indicate that while some professionals feel confident in their ability to communicate with Deaf/deaf or SASL users, a significant proportion either remain unsure or report limited communication abilities.

Figure 5.41: Are you able to communicate with people who are Deaf/SASL users using SASL? By type of profession

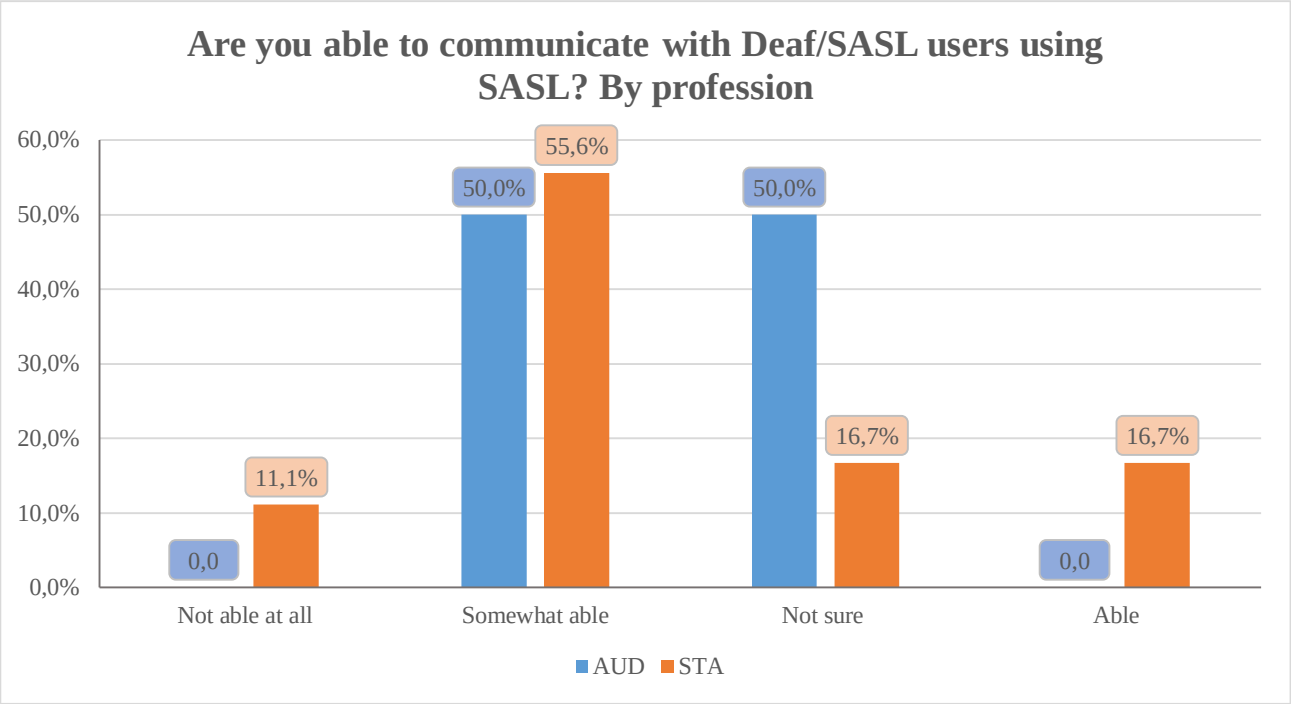


Figure 5.41 reports on STAs and AUDs' ability to communicate with Deaf/SASL users using SASL, categorized by the profession held by participants. The results indicate that very few participants were able to communicate with people who are Deaf or SASL users using SASL. Specifically:

- Nearly a fifth of STAs (16.7%) reported that they were able to communicate with Deaf/SASL users using SASL.
- No AUDs indicated the ability to communicate with Deaf/SASL users using SASL.
- Half of AUDs (50.0%) reported being either unsure or somewhat able to communicate with Deaf/SASL users.

- Over a tenth of STAs (11.1%) admitted that they could not at all communicate with Deaf/SASL users.
- However, a portion of STAs (16.7%) were able to communicate with Deaf/SASL users using SASL, reflecting the training they received in Deaf culture, Basic SASL, and the Deaf community (83.3%, respectively, see Figure 5.31).

Additionally, the majority of STAs and AUDs had assisted someone in the Deaf community (95.4% of STAs and 100% of AUDs, see Figure 5.37). Despite these figures, chi square results (p-value 0.297 >0.05) showed that there was no significant association between the ability of STAs and AUDs to communicate with Deaf/SASL users using SASL and the type of qualification they hold. This suggests that while some professionals are equipped with the necessary skills to communicate in SASL, many remain unsure or lack the full ability to do so, irrespective of their specific qualifications.

Figure 5.42: As an audiologist/speech therapist and audiologist, do you feel you were adequately prepared to provide services as well as communicate with the Deaf/SASL users?

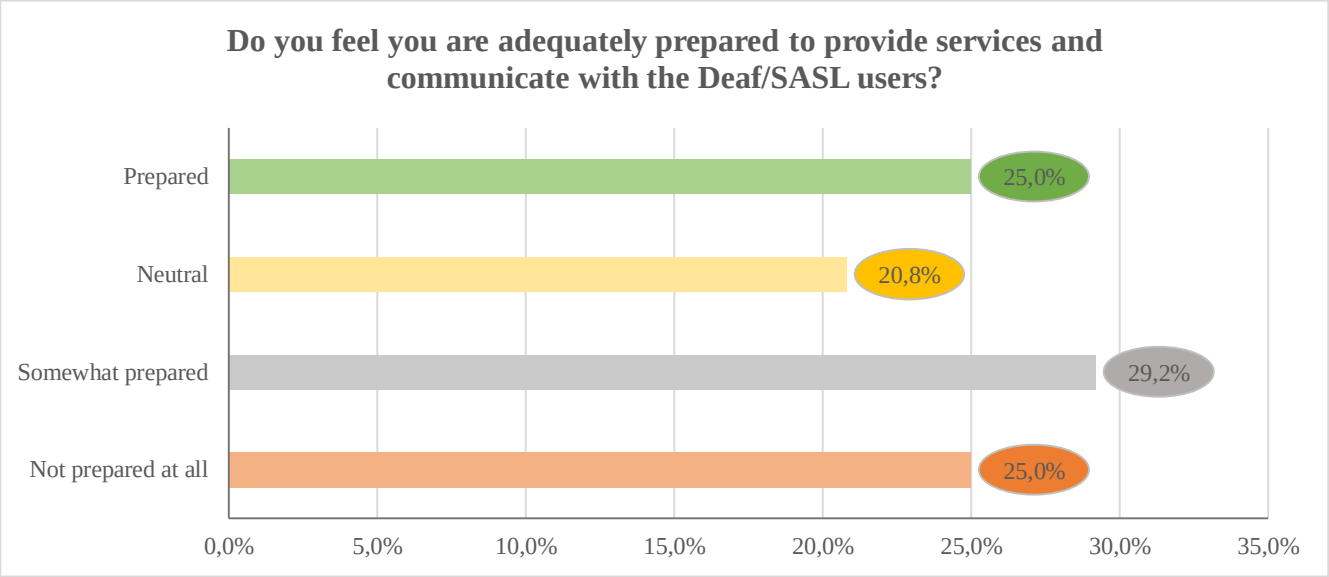


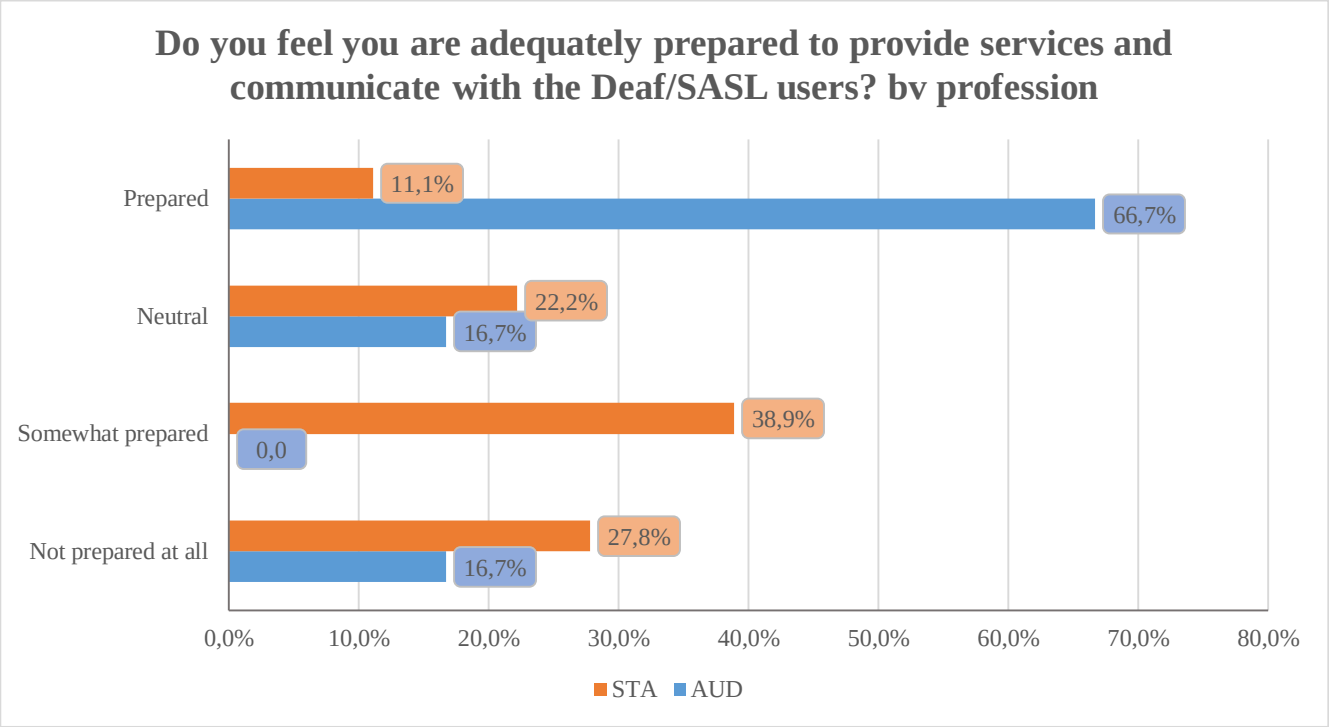
Figure 5.42 presents the responses of STAs and AUDs regarding their preparedness to provide services and communicate with Deaf/SASL users. The results, based on a 1-5 ordinal scale (where

1 indicates a total lack of preparedness and 5 indicates the highest level of preparedness), show a varied distribution of feelings of preparedness:

- A quarter of participants (25.0%) reported feeling completely prepared to provide services and communicate with Deaf/SASL users.
- An equal proportion (25.0%) expressed that they were not prepared at all.
- Nearly a third of participants indicated that they somewhat felt prepared to work with Deaf/SASL users.

These findings suggest that while a portion of the participants felt confident in their preparedness, a significant number still felt underprepared or uncertain about their ability to effectively communicate and provide services to the Deaf/SASL community. This highlights a potential gap in training or practical experience for some professionals in this area.

Figure 5.43: As an audiologist/speech therapist and audiologist, do you feel you were adequately prepared to provide services, as well as communicate with the Deaf/SASL users? By profession



Although most STAs and AUDs felt adequately prepared to provide services and communicate with Deaf/SASL users, results in this section (Figure 5.43) reveal key differences between these two groups:

- Majority of AUDs (66.7%) felt adequately prepared, compared to only 11.1% of STAs.
- A significant gap in perceived preparedness is observed between STAs and AUDs, with more AUDs reporting a higher level of confidence in their ability to serve Deaf/SASL users.
- Over two-fifths of STAs (44.4%) and two-fifths (39.9%) had completed clinical training with the Deaf community within 3 months to 1 year, while less than a fifth of AUDs completed 6 months of training (see Figure 5.34).
- Nearly two-fifths of STAs (38.9%) reported feeling somewhat prepared, whereas no AUDs indicated this level of preparedness.
- More than a quarter of STAs (27.8%) expressed that they were not prepared to provide services to the Deaf/SASL community.

The chi-square analysis (p-value $0.042 < 0.05$) showed a significant association between STAs and AUDs in terms of their preparedness to provide services and communicate with Deaf/SASL users. This suggests that AUDs generally feel more prepared compared to STAs, emphasizing the need for additional training and support for STAs in working with the Deaf community.

Figure 5.44: Do you use other methods (excluding SASL) of communication with Deaf people?

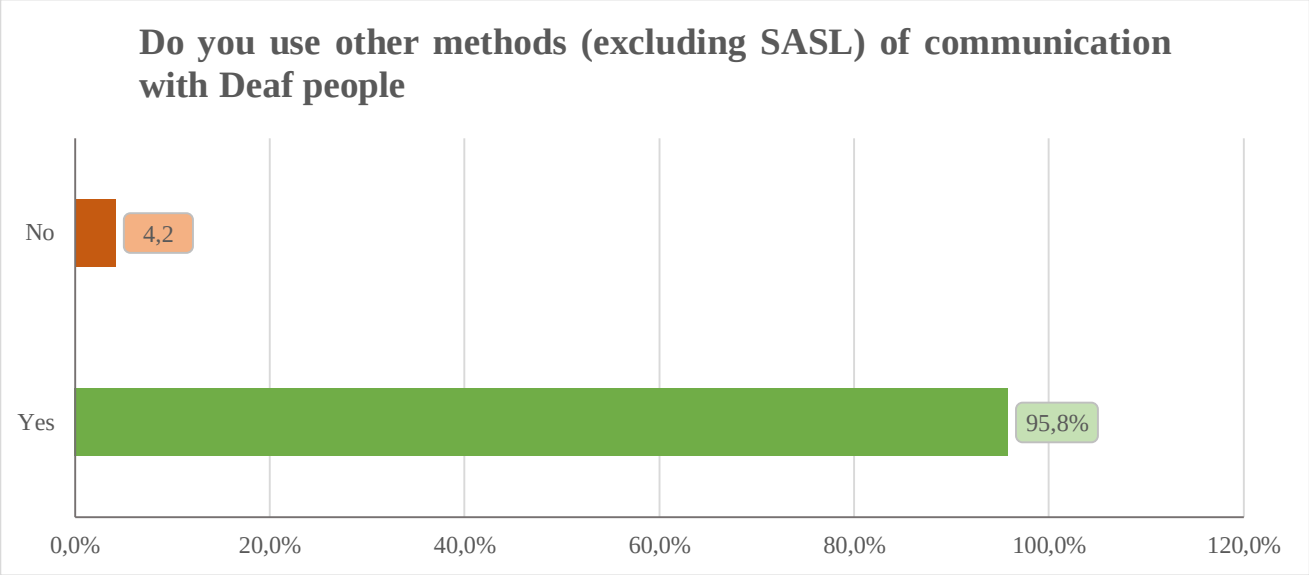
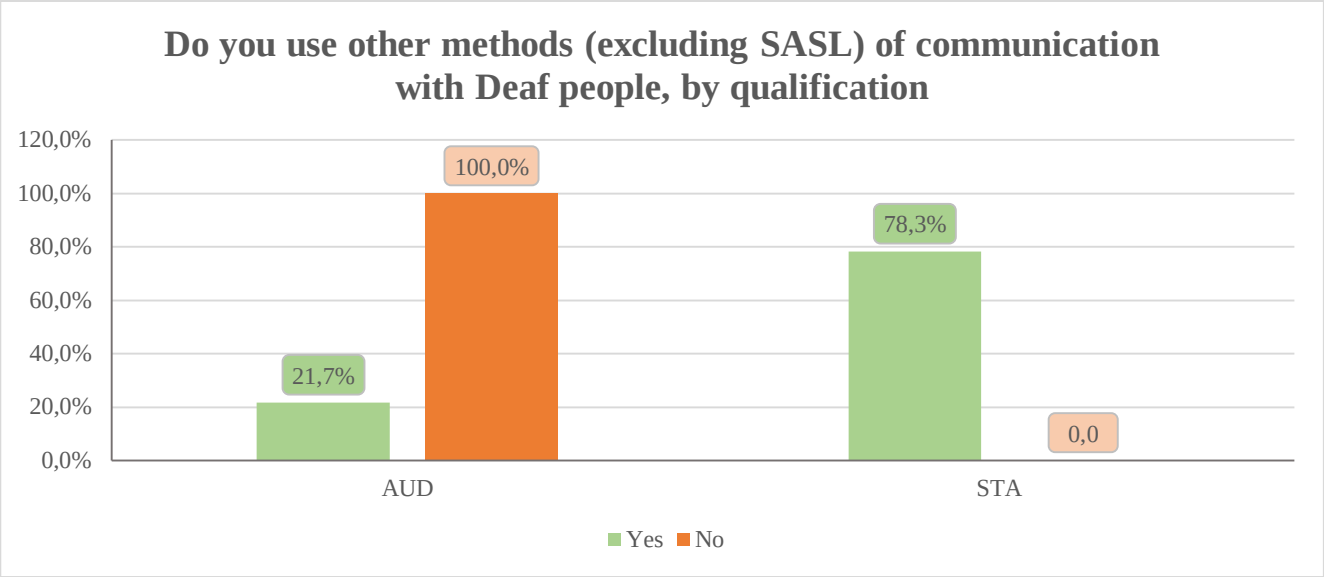


Figure 5.44 presents findings on whether STAs and AUDs use alternative communication strategies, such as writing and texting, instead of SASL when interacting with the Deaf community. The results indicate a strong dependence on non-SASL methods, with 95.8% of participants reporting that they use alternative strategies to facilitate communication.

The following points ought to be highlighted:

- High reliance on non-SASL communication methods
- Writing and texting are the primary strategies used
- Likely due to limited SASL fluency or practical constraints

Figure 5.45: Do you use other methods (excluding SASL) of communication with Deaf people? By qualification



Participants were asked whether they use other methods, excluding SASL, to communicate with Deaf individuals. The results showed:

- 78.3% of STAs reported using alternative strategies such as writing or texting.
- None of the STAs disagreed, indicating universal reliance on non-SASL methods within this group.
- 100% of AUDs disagreed with using other communication methods, implying exclusive use of SASL.
- Chi-square analysis (p-value 0.077 > 0.05) found no statistically significant association between qualification type (STA vs. AUD) and the use of alternative communication strategies. Differences exist in practice but are not statistically meaningful based on this study's findings.

Figure 5.46: Do you think you require interpretation services when communicating with the Deaf community in your line of work?

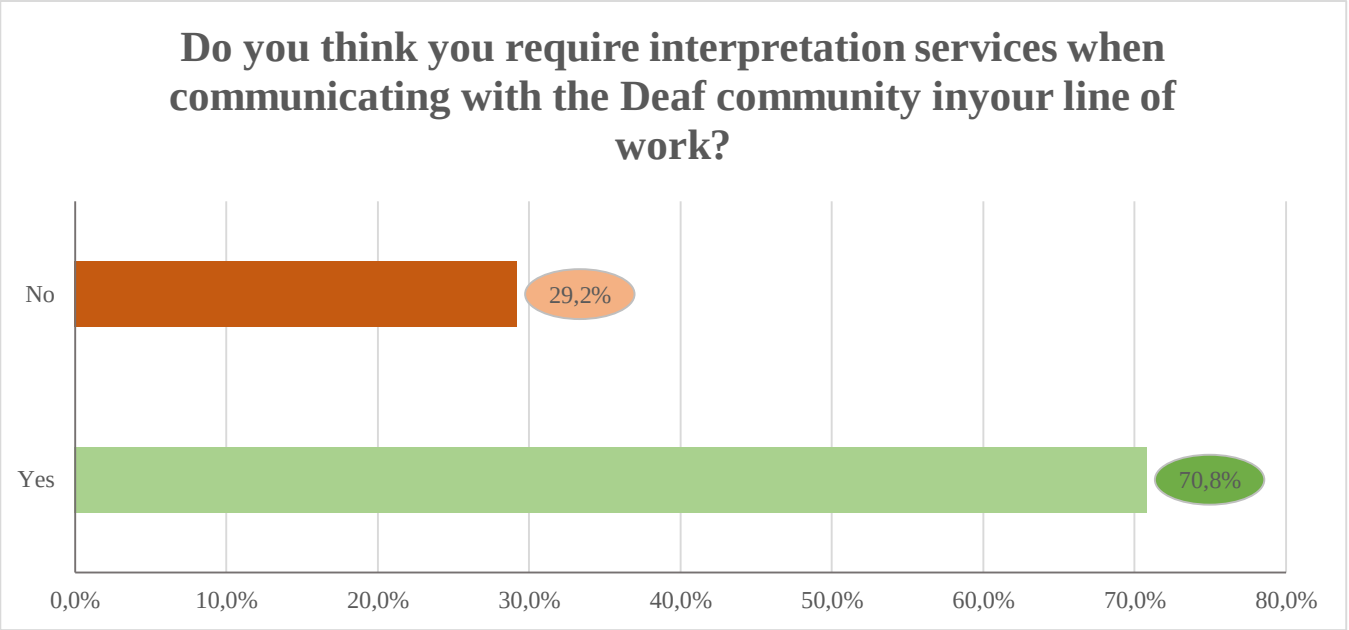


Figure 5.46 presents findings on whether STAs and AUDs required interpretation services when communicating with the Deaf community.

- 70.8% of participants indicated they required interpretation services, demonstrating a significant reliance on interpreters.
- 29.2% reported not needing interpretation services, suggesting they could communicate independently using SASL or other effective methods.
- The results emphasize the necessity of interpretation services for many professionals in their interactions with the Deaf community.

Figure 5.47: Do you think you require interpretation services when communicating with the Deaf community in your line of work? By profession

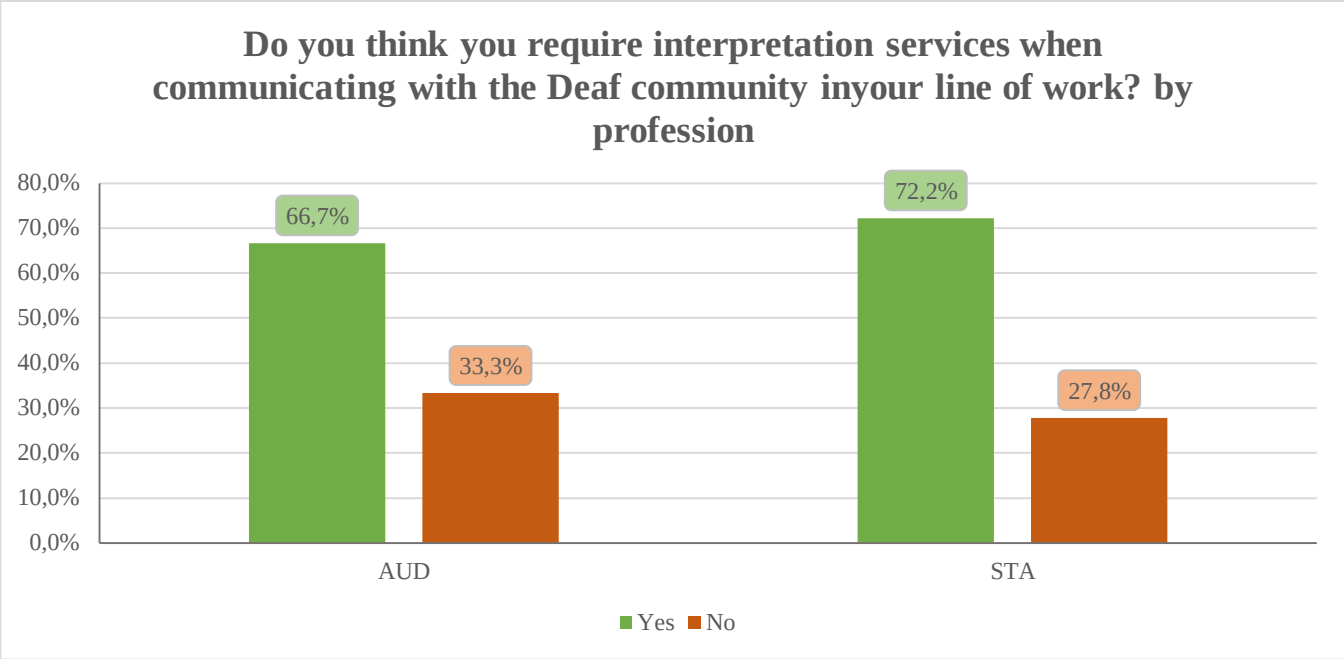


Figure 5.47 presents findings on whether STAs and AUDs required interpretation services when communicating with the Deaf community, categorized by profession.

- 72.2% of STAs reported needing interpretation services, highlighting a greater reliance on interpreters.
- 33.3% of AUDs indicated they did not require interpretation services, suggesting they could communicate more independently with Deaf individuals.
- This finding aligns with earlier results (Figure 5.45), where 78.3% of STAs admitted to using alternative communication strategies beyond SASL when interacting with Deaf people.
- Chi-square analysis (p-value 0.795 > 0.05) showed no statistically significant association between the need for interpretation services and professional qualification.
- While STAs relied more on interpreters than AUDs, this difference was not statistically meaningful within the study.

5.2.7. Confidence in providing services in SASL

The official recognition of SASL as a national language has contributed to a significant boost in confidence among professionals in providing services using SASL. Despite this recognition, many trained professionals, particularly in the fields of audiology and speech therapy, still struggle with effectively communicating in SASL.

One of the primary objectives of this study was to assess the confidence of STAs and AUDs in delivering services using SASL. The study specifically aimed to:

- Explore how confident STAs and AUDs feel in their ability to communicate with Deaf/SASL users.
- Investigate the challenges professionals face when interacting with the Deaf community.
- Identify barriers to effective communication and how SASL proficiency could help overcome these obstacles.

By examining both the confidence and competence of professionals in this context, the study provided insights into the difficulties these professionals experience and highlighted the importance of adequate training and development in SASL for improving communication with Deaf individuals.

Figure 5.48: As an AUD/STA, how confident are you when communicating with the Deaf community?

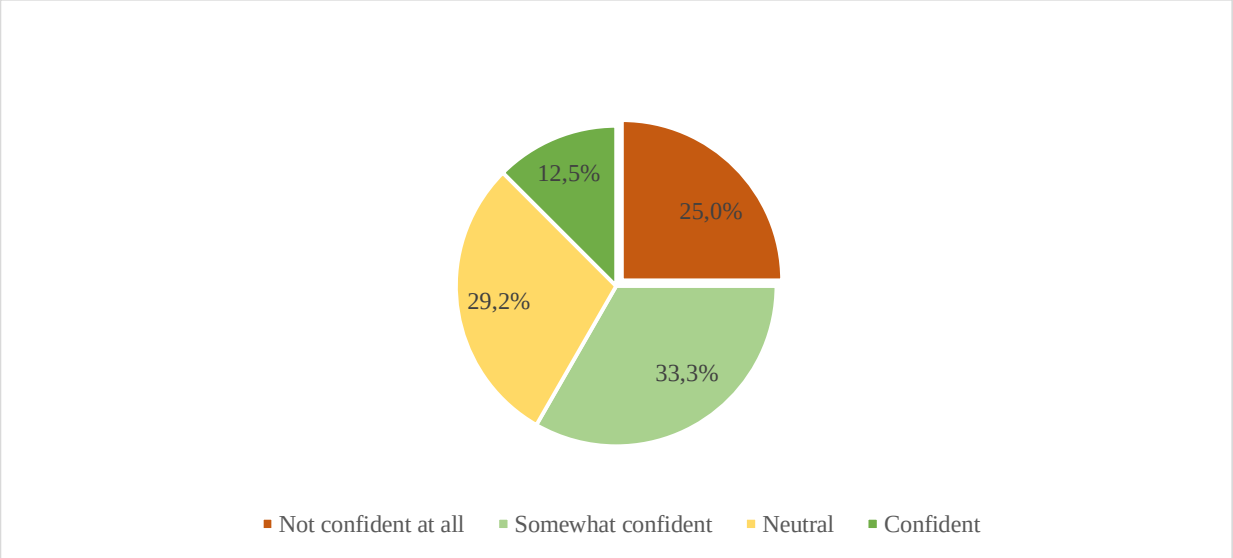


Figure .458 illustrates the confidence levels of STAs and AUDs when communicating with the Deaf community, measured on an ordinal scale from 1 (not confident at all) to 5 (highly confident). The findings indicate that:

- 12.5% of participants felt confident in their ability to communicate with the Deaf community.
- 25.0% expressed that they were not confident at all.
- 33.3% reported being somewhat confident.
- 29.2% took a neutral stance regarding their confidence levels.

These results suggest that most STAs and AUDs do not feel highly confident in their ability to communicate with the Deaf community. The data reflects a notable gap in confidence among professionals when interacting with Deaf/SASL users. This highlights the pressing need for enhanced training and support to build greater proficiency in SASL communication among professionals.

Figure 5.49: As an audiologist/speech therapist and audiologist, how confident are you when communicating with the Deaf community? By profession

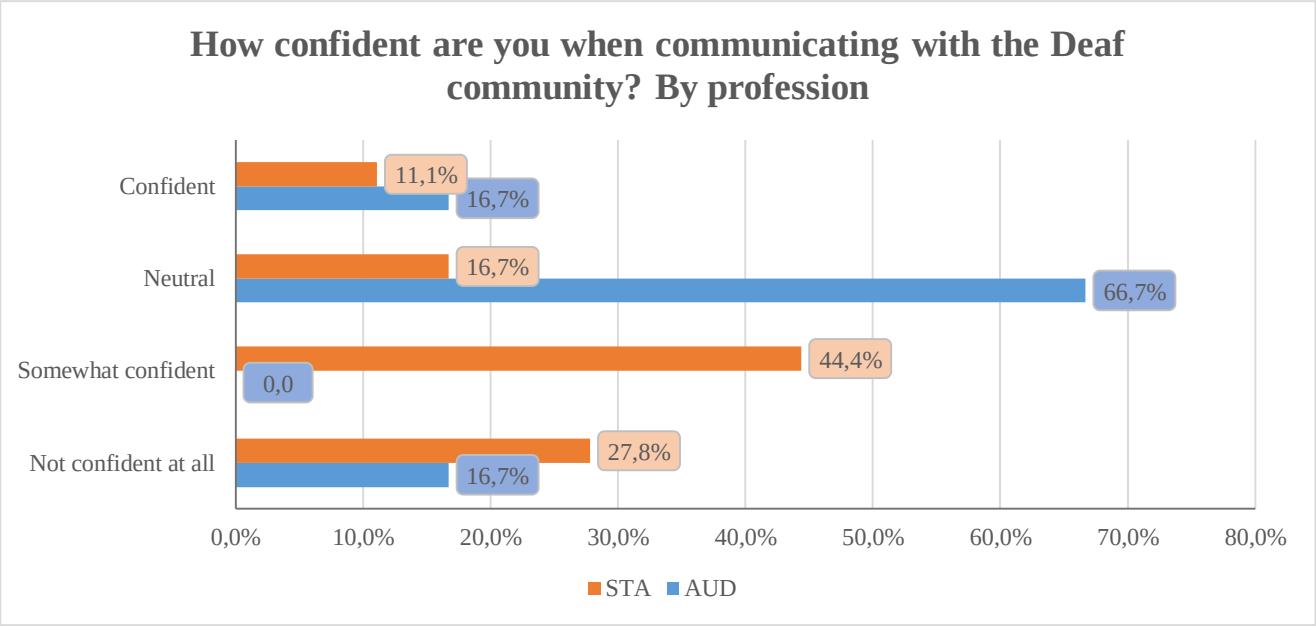


Figure 5.49 explores the confidence levels of STAs and AUDs when interacting with the Deaf community, categorized by their professional qualification. The results reveal:

- A small percentage of both STAs and AUDs feel confident in communicating with the Deaf community.
- 16.7% of AUDs expressed confidence, while only 11.1% of STAs reported the same, indicating that AUDs generally feel more confident than STAs.
- A significant portion of STAs (44.4%) expressed being somewhat confident, reflecting lower overall confidence in their ability to effectively communicate with the Deaf community.
- Over a quarter of STAs (27.8%) stated they were not confident at all in these interactions.

Chi-square analysis (p-value 0.077 > 0.05) showed no statistically significant relationship between the confidence of STAs and AUDs and their professions. This underscores the importance of more targeted training to improve communication skills with Deaf/SASL users across both professional groups. These findings align with earlier data, such as the 72.2% of STAs who rely on interpretation services (see Figure 5.47) and the reliance on non-SASL communication strategies (see Figure 5.45). The results suggest that STAs, in particular, face greater challenges in effective communication with Deaf individuals.

Figure 5.50: As an audiologist/speech therapist and audiologist, how competent are you when you are communicating with the Deaf community?

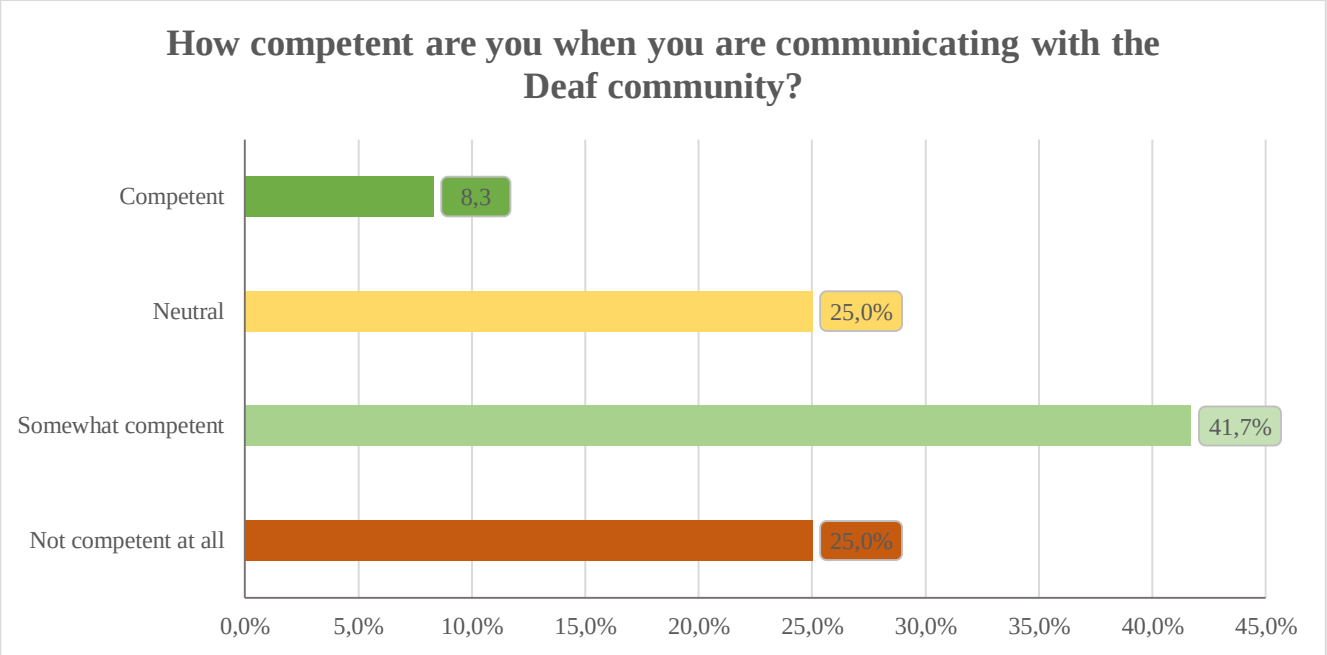
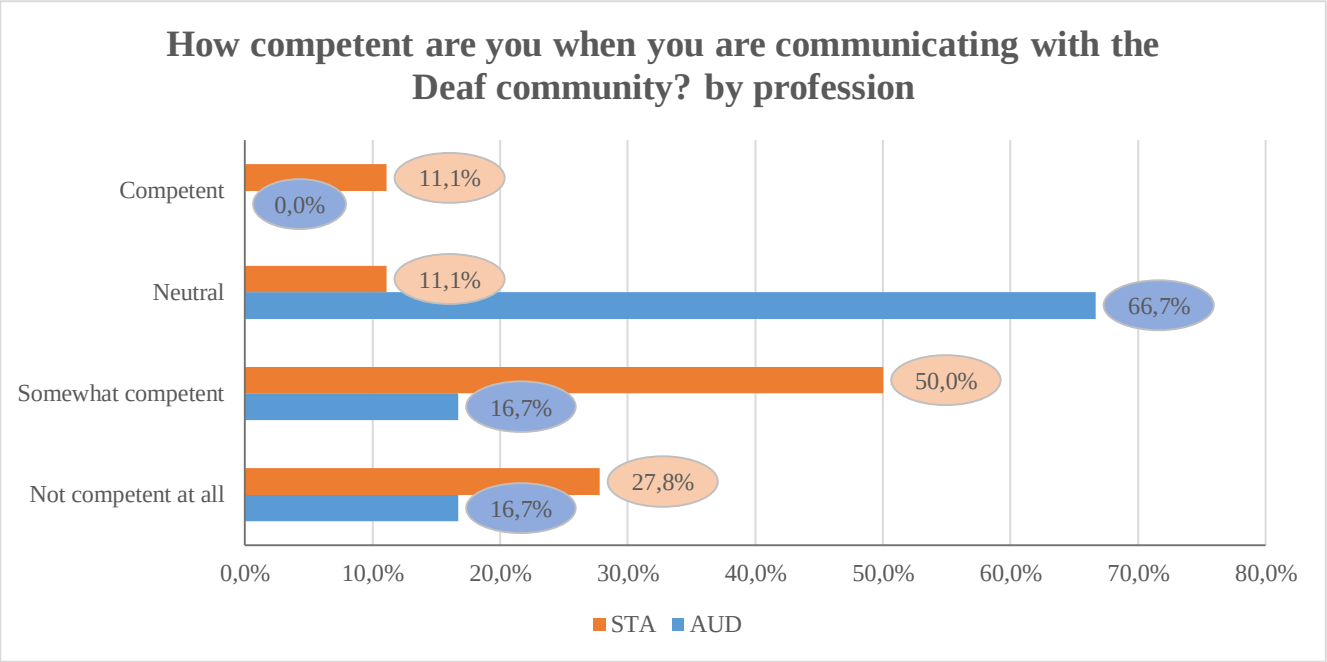


Figure 5.50 presents the competence levels of STAs and AUDs when communicating with the Deaf community, based on respondents' self-assessments. The data, collected on an ordinal scale, allowed respondents to rate their competence from "most competent" to "not competent at all." The results show:

- Over two-fifths of participants (41.7%) rated themselves as "somewhat competent" when communicating with the Deaf community.
- A small fraction, less than a tenth (8.3%), felt they were "competent" in this area.
- A quarter of the participants (25.0%) admitted to being "not competent at all" in communicating with the Deaf community.

These findings suggest that there is a general lack of competence among STAs and AUDs in interacting with the Deaf community, with many professionals acknowledging their limited ability to effectively communicate with Deaf individuals. This underscores the need for more focused training and resources to enhance their competence in SASL or other communication strategies tailored for the Deaf community.

Figure 5.51: From a scale of 1-5, as an audiologist/speech therapist and audiologist, how competent are you when you are communicating with the Deaf community? By profession



In this study, participants were asked to assess their competence in communicating with the Deaf community. Figure 5.51 breaks down these results by the profession of the respondents, offering insights into the competence levels of STAs and AUDs.

Key findings include:

- STAs:
    - A small percentage (11.1%) of STAs felt competent in communicating with the Deaf community.
    - Nearly one-third (27.8%) of STAs reported not feeling competent at all.
    - This aligns with the low confidence levels of STAs reported in Figure 5.49, suggesting that STAs face challenges in both confidence and competence when engaging with Deaf individuals.
    -

- AUDs:
    - No AUDs reported feeling competent in communicating with the Deaf community.
    - A significant portion (66.7%) of AUDs expressed neutrality, neither feeling competent nor incompetent in their interactions with Deaf individuals.
- Chi-square analysis:
    - The chi-square analysis (p-value 0.054 > 0.05) indicated no statistically significant relationship between the competence levels of STAs and AUDs and their professional qualifications.
    - This suggests that both STAs and AUDs face similar challenges in developing the competence required to communicate effectively with the Deaf community.

These results reinforce the need for targeted training programmes to help both professional groups improve their competence in interacting with Deaf individuals.

Figure 5.52: Have you ever encountered challenges when communicating with Deaf people?

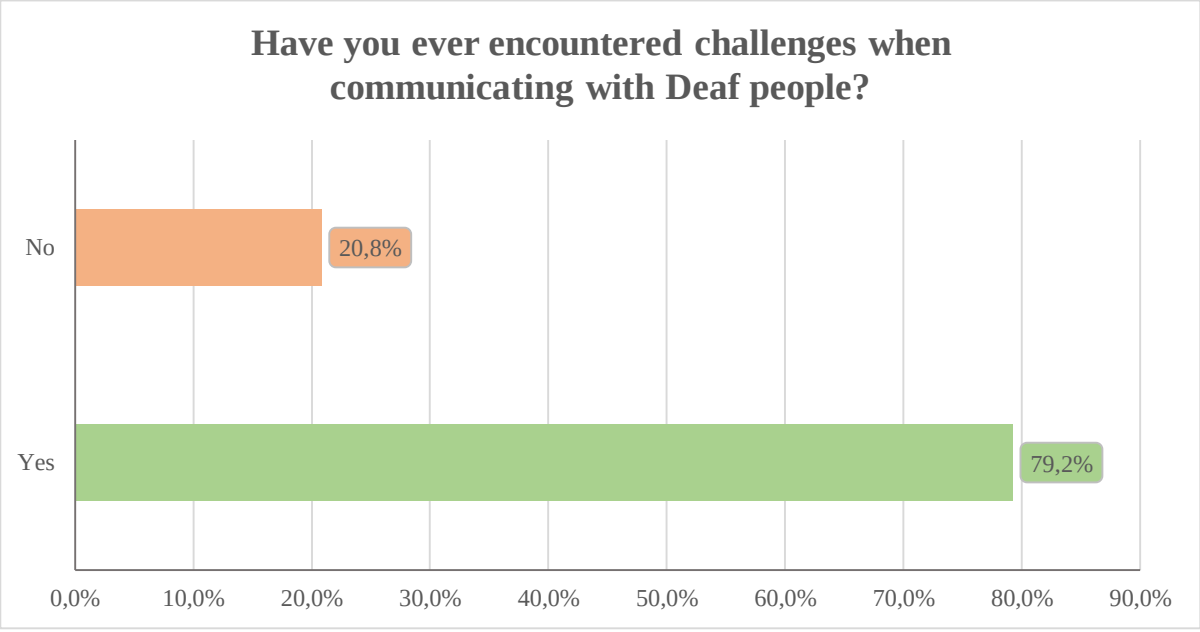


Figure 5.52 presents findings on the challenges faced by STAs and AUDs when communicating with Deaf individuals. Key points from the data include:

- Majority of Participants:
    - A significant majority of STAs and AUDs (79.2%) reported experiencing challenges in their communication with the Deaf community.
    - This aligns with earlier results showing low confidence and competence levels in communication, as well as a high reliance on interpretation services.
- Small Minority of Participants:
    - Only a fifth of the participants (20.8%) stated that they did not face any challenges in their interactions with Deaf individuals.

These findings underscore the communication barriers that healthcare professionals encounter when working with Deaf individuals. The results highlight the need for enhanced training and resources to bridge these gaps and improve communication efficacy in healthcare settings.

Figure 5.53: Have you ever encountered challenges when communicating with people who are Deaf? By profession

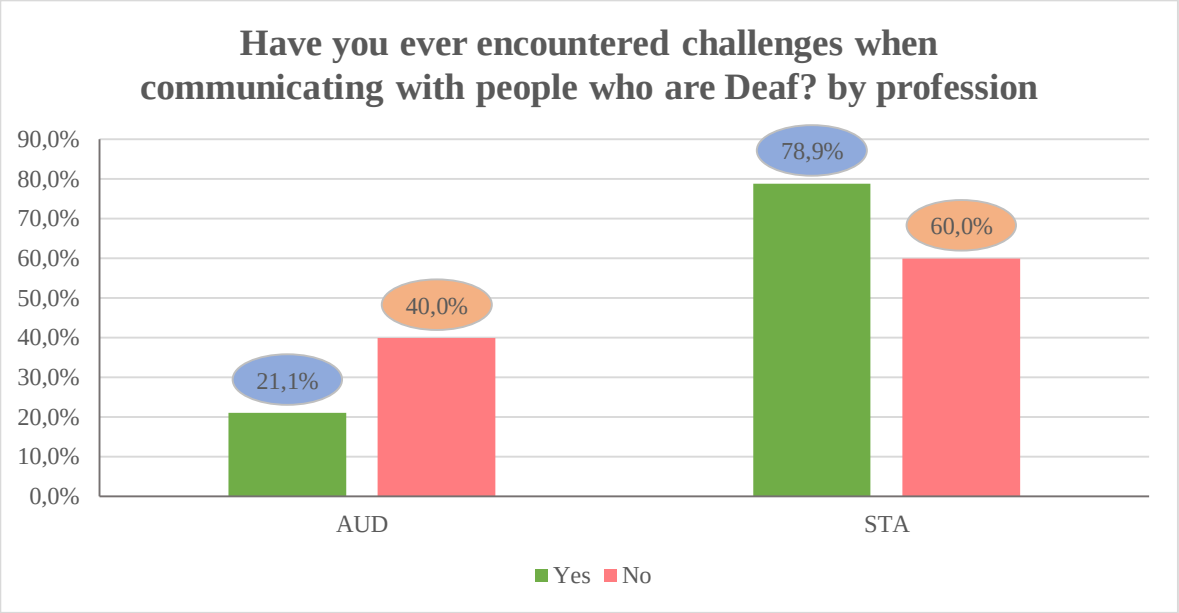


Figure 5.53 illustrates the challenges STAs and AUDs face when communicating with Deaf individuals, broken down by their qualifications. The key findings are:

- STAs:
    - A significant majority of STAs (78.9%) reported experiencing challenges in their interactions with Deaf individuals.
    - This is consistent with their lower confidence and competence in communicating with the Deaf community, as well as their heavy reliance on interpretation services and alternative communication methods, rather than SASL.
- AUDs:
    - Only 21.1% of AUDs reported facing communication challenges with the Deaf community.

Despite these observed differences, chi-square analysis (p-value 0.384 > 0.05) revealed no statistically significant relationship between the professional qualifications of STAs and AUDs and the challenges they face in communication. This suggests that the challenges experienced by both groups are not strongly tied to their professions.

5.3. Phase 2: Qualitative results

Phase 2 of the study employed a qualitative design, conducted through both in-person and online one-on-one interviews with STAs and AUDs. The development of the interview schedule was informed by the findings from Phase 1. Thematic content analysis was used to analyse the data, with key themes and sub-themes emerging from the interview transcriptions. To support these findings, direct quotes from participants were included in the analysis.

This phase consisted of 12 participants, including seven STAs and four AUDs. Among them, seven were female and five were male, with work experience ranging from one to seven years. The participants' educational backgrounds varied, with seven having studied at Wits University, three at Sefako Makgatho University, and two at the University of Cape Town. Due to the ongoing load-shedding crisis in South Africa, the researcher was unable to conduct online interviews with two participants. As a result, face-to-face interviews were arranged at locations and times convenient for them to ensure their participation in the study

Table 2: Demographic profile of participants in the current study (phase 2)

Participant	Sex	University	Year of graduation	Profession	Work Experience	Interview mode	Work Setting (Private/Public/Educational)
1	Female	Wits University	2020	STA	2 years	Face to face	Hospital Deaf school SID school
2	Male	Sefako Makgatho University	2014	STA	7 years	Face to face	Public hospital Private practice
3	Female	Wits University	2020	STA	2 years	Online	Public hospital setting
4	Female	Wits University	2019	STA	3 years	Online	Public hospital Private practice Deaf school
5	Female	Wits University	2019	STA	3 years	Online	Public hospital SID public school Autism public school
6	Male	Sefako Makgatho University	2020	STA	2 years	Online	Private practice Public hospital
7	Male	Sefako Makgatho University	2017	STA	5 years	Online	Private practice Public hospital
8	Male	University of Cape Town	2019	AUD	3 years	Online	Public hospital Private practice
9	Female	Wits University	2021	AUD	1 year	Online	Public hospital
10	Female	Wits University	2020	AUD	2 years	Online	Public hospital Private practice
11	Male	University of Cape Town	2019	AUD	1 year 9 months	Online	Public setting
12	Female	Wits University	2021	AUD	1 year	Online	Public setting

The data obtained from this study revealed intriguing findings regarding the role of SASL as a tool for service delivery among STAs and AUDs when working with the Deaf community and SASL users in South Africa.

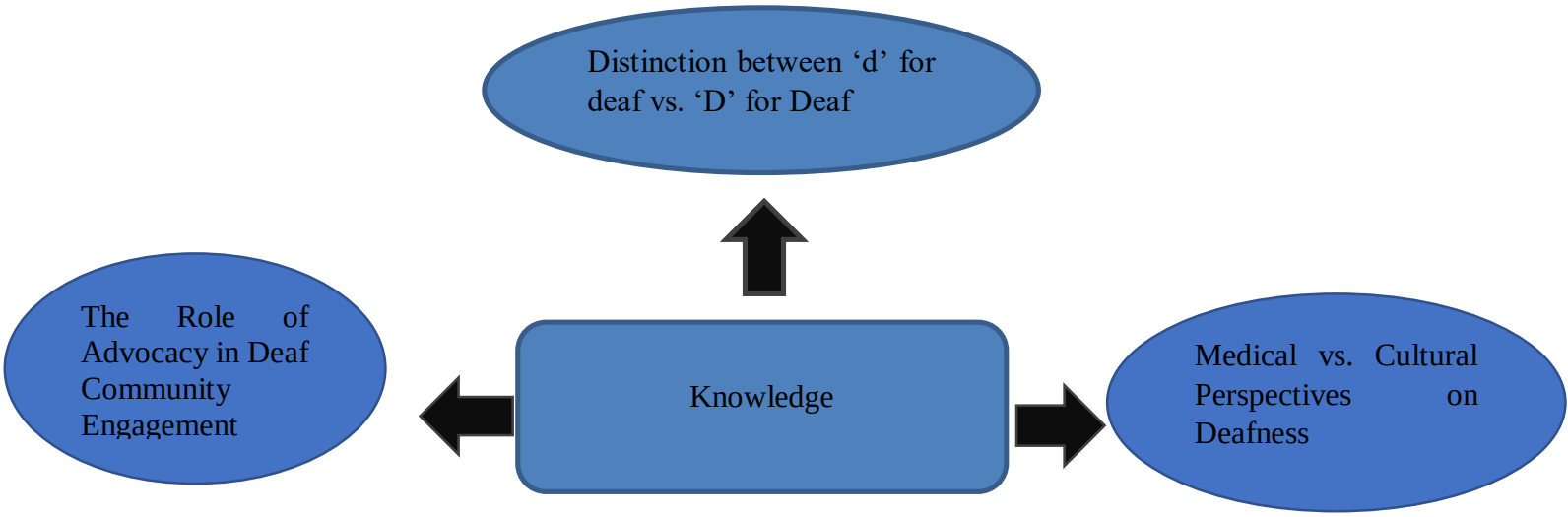
5.3.1. Themes and subthemes

Table 5.2. Themes and subthemes

Main theme	Subthemes
1. Knowledge and perceptions	• Distinction between 'd' for deaf vs. 'D' for Deaf • Medical vs. Cultural Perspectives on Deafness • The Role of Advocacy in Deaf Community Engagement
2. Motivation to use/not use SASL	• Influence of SASL Exposure on Professional Practice • Impact of Training Duration and Timing - *Comparison of Wits University, University of Cape Town, and Sefako Makgatho University* • Factors Affecting Language Retention and Usage
3. The confidence	• Impact of COVID-19 on Training and Practice • Reliance on Interpreters in Clinical Settings • Alternative Communication Strategies in the Absence of SASL Proficiency • Effectiveness of Theoretical Training in Building Practical Confidence
4. The perceived tension	• Hearing aids vs. SASL • Potential Bias in Informational Counselling for Deaf Patients

Theme 1: Knowledge and perceptions

The first objective of this study was to explore participants' knowledge and perceptions of Deaf culture and SASL. This theme was further divided into three subthemes.



Subtheme 1: **Distinction between ‘d’ for deaf vs. ‘D’ for Deaf**

The distinction between "Deaf" (uppercase D) and "deaf" (lowercase d) plays a significant role in understanding Deaf culture and the Deaf community. It was found that five out of twelve participants were aware of the "d" and "D" debate.

Participant 1 elaborated that the lowercase "d" for deaf refers to individuals diagnosed with a hearing -loss who do not identify with the Deaf community. On the other hand, the uppercase "D" for Deaf refers to individuals with a hearing loss who identify as members of the Deaf community and engage with its culture.

> *“…that Deaf with caps ‘D’ is for those culturally different, and they are a community. A small ‘d’ is the one that is used in the medical... (laughs) in a hospital setting, that classifies or that shows that there is a problem with this person’s hearing”*

Participant 4 also expressed a similar view:

> *“Yes. Uh, I understand it; as in the small letter “d” is just the idea of being deaf, and capital letter “D” is being part of the Deaf community…”*

Whilst most of the participants had knowledge concerning the lowercase 'd' for deaf vs. uppercase 'D' for Deaf; it was noted that two of the participants did not fully understand the two concepts.

> *" Yo! I don't even remember. I just know that, like… I don't even remember the difference. But then I know like they were saying something that the "d", like, ja [yes]. I know there was, like, some talks about that but I don't remember what it was."* Participant 5

Additionally, participant 3 also showed a lack of understanding towards the two concepts, however, alluded to the fact that she acknowledges that there is a difference between lowercase 'd' and uppercase 'D.'

> *"I don't really know what to say about that… I remember we did that in first year, but I think with the big 'D' I think it's something that the Deaf community created. I don't know why… I don't know the significance. But I know that there's a difference, the small 'd' I am not sure about that."*

SUBTHEME 2: **Medical vs cultural perspective on d/Deafness**

Eight participants seemed to be knowledgeable and could differentiate between the medical view and the cultural view of disability.

Participant 4 expressed the following:

> *"…in terms of medical, it is based on anatomy and uhrr… the functioning of the human body, it will be considered a disability, just because it's not functioning, on like a normal… based on norms. But from a cultural view I would say it's not a disability because they have their own community, and they have pride in the community."*

Participant 2 reported:

> *"When we speak of the medical that's when we speak of the disability – or inability to hear. And then, when we talk about the cultural, we talk about their sense of belonging, uhm… The, the involvement in tradition… They share a culture…"*

Participant 3 reported the following.

"Ok so…, I know that with the medical definition… the medical definition sees umm… deafness as a disability and as something that needs to be fixed. And then whereas the… is it cultural or… the latter, sees deafness as something that is… a disability but it is created by the society."

It is worth noting that five of the participants seemed to not understand the difference between the medical and the social view of disability.

Participant 10 reported the following.

"Uhm, I think, socially, once we say someone is disabled, automatically that person is excluded from certain activities and, uhm, yah… I mean, like, automatically that person – feel like that person won't be able to carry out certain activities and so, then… That leads to exclusion, right? Uhm… But medically, it just means that… There is… Okay, I don't know how to explain the medical one – I don't know."

Participant 9 seemed to understand the medical model more than the social model.

"Medical view would be we have a patient with a hearing loss, and you have to provide them with a management plan on how to assist them to better adapt in the society. So, we do that by providing them with hearing assistive devices. Whereas with the social view, it would be umm… I don't know …"

Additionally, it was identified that seven participants believed that Deaf people are culturally different.

According to participant 8, being Deaf does not mean one cannot communicate; it just means that individual communicates differently from their hearing counterparts.

…"Culturally different. Because they are individuals. It's not like they can't communicate. It's just that their way of communicating is different from our own. But they are still able to communicate, and, therefore, they have a culture of their own and their way of doing

things and their beliefs and so forth and so on… That's then… It is more of a culture than a disability."

Participant 3 and participant 1 stated that Deaf people are culturally different, because they can do what hearing people can do.

"I think they are different. I'll say they're different. I wouldn't say they are disabled because, I mean, they can do everything that me and you can do. The only difference is that uhm, they cannot hear environmental sounds, and they can't hear conversations. But some of them – some of them can lip read and stuff, so I would say – I wouldn't say it's a disability as such because they can do everything, they can go everywhere… You know, so… I wouldn't call it a disability." Participant 3

"I will say they are culturally different. because they use a different language to communicate, however, they are able to do most of the things, we …people who are hearing are able to do. They also have talent. As they go to school, they can become professionals. So, I would classify them as culturally different." Participant 1

Whilst four participants believed that Deaf people are both disabled and culturally different.

" Both, because in South Africa, uhm, having a hearing loss is considered a disability; so, they are both disabled to some extent and as well as culturally different, because they are pride[sic] their own community, if I may put it that way – the Deaf community –so… they have a certain way of doing things, uhm, different from our – from us. I think, yah…" Participant 10

Participant 2 reported the following.

" Okay, I feel like It's a bit of both. Generally, the Deaf community is a culture – it's a cultural difference. Okay? However, there is a part of, uh, disability in it – I wanna [sic] say impairment – because they are unable to hear. That is a disability in itself. And, however, is it really an impairment if they are already part of a culture with a functional language and a society? Uhm… a society that functions like any other – a society with

tradition like any other community, uhm, even when compared to the hearing world… You see… So, in a sense… To answer that question, I would say, uh, it is a disability in a sense that they can't hear. Okay? But that is a physiological disability, but if we talk about the Deaf community, now we're talking about a cultural difference – not a disability. So, the Deaf, uhm, is a cultural difference."

One participant believed that Deaf people are disabled.

Participant 9 stated that Deaf people are disabled because there are several things they cannot do.

" Disabled… because they don't have access to a lot of things in our society, what do I mean by that? Let's say a Deaf person goes to the bank to make a query on something. People that work at the bank they're not proficient in sign language. So, the assumption is that they don't get your… adequate service that a normal person would get. Like it plays a role having a hearing impairment. There are some limitations when it comes to accessibility in the society."

SUBTHEME 3: The role of advocacy in Deaf community engagement

Seven participants highlighted that one of the key roles of STAs and AUDs in the Deaf community is advocacy.

Participant 10 emphasized that AUDs and STAs must actively advocate for the Deaf community, ensuring their inclusion in society and promoting equal opportunities for Deaf individuals.

"Uhm… I think… To advocate for the inclusion and just being able to – yah – for the inclusion."

Participant 6 stated that the role of AUDs and STAs extends beyond advocating for communication; they must also educate and advocate for other healthcare professionals about SASL. This is crucial, as these professionals may encounter Deaf individuals or SASL users during their service delivery.

"I think that my role is to be an advocate for communication, and to help… basically get other health professionals as well to the level of them acknowledging that they ought to

learn this language, because, whether they like it or not-it is a language. Any health care professional can come across a patient of the Deaf community. That's why I am saying that our role is to basically try to advocate to other health professionals- they also need to learn this". P6

Participant 12 emphasized that AUDs and STAs play a crucial role in advocating for and protecting members of the Deaf community. They highlighted that, in many cases, Deaf individuals are excluded from fully participating in society like their hearing counterparts, underscoring the need for greater inclusivity and support.

"Advocating and maybe protecting them, uhm, because they are often excluded from a whole lot of things."(P12)

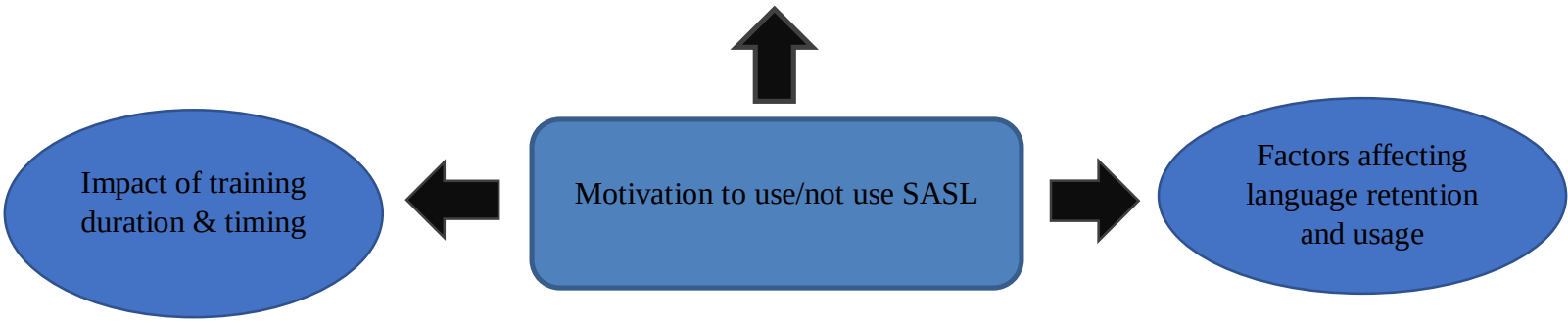
While some participants demonstrated a clear understanding of their role in the Deaf community, others were uncertain about their responsibilities. Participant 9 expressed this uncertainty, stating:

"My role, I think my role in the Deaf community is blurred to be honest with you, I am not sure on what I can do, because [sic] I help according to what I think the patient wants. I am not knowledgeable on what exactly is my role."

Theme 2: Motivation to use/not use SASL

One of the objectives of this study was to explore participants' motivation for using or not using SASL when providing services to Deaf individuals and SASL users. Three subthemes emerged from this theme.





SUBTHEME 1: **Influence of SASL exposure on professional practice**

Seven participants highlighted the importance of exposure to sign language. Notably, among these seven, two participants stated that a lack of exposure to sign language influenced their decision not to use it as a method of communication.

Participant 7 expressed the following:

> *"…Honestly speaking, I didn't get enough exposure… Well, I think, uhm… ample exposure; If I get adequate exposure, uh, you know, uh, engaging with these, uhm, Deaf people would enable me to be motivated"*

Participant 9 reported that the lack of exposure has resulted in the inability to communicate with members of the Deaf community/SASL users.

> *"…So, it is hard to communicate with them or relate with them, because we don't have much exposure"*

According to three participants, exposure was deemed imperative for an individual to be motivated to use sign language.

> Participant 6 expressed the following:
>
> *"My thoughts are sign language is like any other language, if you don't use it you'll forget a lot of things. So, I think, even though I am someone who has learnt how to use it- I need more exposure;"*

Participant 5 similarly expressed that exposure to sign language does play a role in motivating an individual to use the language.

"I think the main factor could be exposure, because I mean, even if you learn but if you're not exposed -like also, you won't be able to use it the way you should. Because if you're exposed to the community or the people that uses that, you are able to learn, you are able to practice, and see how much you can exchange in a conversation with them using Sign Language"

Participant 3 highlighted that it is vital to not only obtain exposure to the language, but also to the speakers of the language.

"I also think exposure to the Deaf community, uhm… So, if we are given the opportunity to maybe, I don't know, uhm… To sort of like, engage with them because that's where you get to consolidate your sign – your signing – that's where you get to pick up, uhm – what's this – learning new signs, and just be comfortable…"

Two participants emphasized the importance of speech therapy and audiology departments consistently incorporating sign language within their departmental environments. They suggested that frequent use of sign language in the corridors and daily interactions would enhance exposure throughout the degree program, ultimately fostering greater proficiency and confidence in using SASL.

Participant 4*: "Exposure, umm… trying to think… maybe just, um… us using it a little bit more at campus as well. Just… exposure among… in our own department, in our own degree… not just outside it... ya"*

Participant 5 shared similar sentiments as participant 4, and expressed the following:

"Because, like, in our department we had ----- (lecturer). He, like, signed very proficiently. He seemed to understand sign language very well as compared to everyone in the department. Whilst with the rest, they didn't seem to know sign language, you know"

Subtheme 2: **Impact of training duration and timing**

Four participants agreed that the limited duration allocated to SASL training during their undergraduate studies significantly impacted their ability to provide services to members of the Deaf community.

Participant 2 expressed the following:

> *" Well, it was difficult because it's a language after all and language is not always a strong point to learn in short period of time for a lot of people; so, in terms of competence – expectations – I feel like the period was inadequate, considering the short space of time we were expected to learn all the… Uh… The basics that would enhance our overall professionalism during…"*

Participant 5 revealed that balancing other academic modules while learning a new language within a short timeframe was challenging and inadequate. As a result, this limited exposure negatively impacted her confidence in providing speech therapy and audiology services to the Deaf population.

> *"I mean you wouldn't expect to have like a longer period of practicals [sic] , because I mean it's one year, and you have to do like everything in that year. It is short, it's not sufficient enough to equip you to go out there... and be like I'm confident to work with a Deaf individual as a speech therapist and audiologist"*

Additionally, Participant 1 expressed that the limited time allocated to sign language training for STAs at her institution was insufficient. Consequently, this lack of adequate training affected her ability to communicate effectively with Deaf individuals and SASL users.

> *"In terms of the SASL, I felt like after I completed my course, my modules, I felt like I wasn't even ready. I wasn't able to communicate with other people using sign language. However, I was able to use basic signs."*

The period allocated for clinical training was deemed inadequate by some participants. Participant 4, for instance, compared two modules taken by STAs at her institution — school-age language and sign language. She expressed that the level of confidence differed drastically between the two, with the limited focus on sign language contributing to a lower confidence in using it effectively with Deaf individuals.

Comparison of Wits University, Sefako Makgatho University and University of Cape Town

It was observed that the different institutions varied in the years during which they taught sign language, both in terms of theory and clinical training. Participants from Wits University, for example, reported being taught SASL theory in their first year, while clinical training was provided in their fourth year of undergraduate study. This timing, according to the participants, influenced how well they were able to integrate SASL into their professional practice and their confidence in communicating with Deaf individuals.

Participants from Wits University indicated that they were taught SASL theory in their first year and received clinical training in their fourth year of undergraduate studies. However, Participant 4 highlighted a challenge with this structure, explaining that the gap between learning the theory in the first year and applying it in clinical settings during the fourth year led to difficulties in recalling the material. She emphasized that the two-year gap caused her to forget much of what she had learned, affecting her ability to effectively use SASL when it was needed in her practice.

> *"Yea, after two years…Basically, I'd say the sign language I had learnt in first year…I would say I didn't remember a lot in 4th year, when I was put in a practical. Yea so I would say I just remembered like finger spelling and very basic signs."(P4)*

In contrast, participants from the University of Cape Town reported a different approach to their SASL training. The two participants shared that both theoretical and clinical components were taught in the same year, specifically during their third year. Participant 8 highlighted that this structure worked well for them, as it allowed for a more integrated learning experience, where the theoretical knowledge could be immediately applied in clinical settings, enhancing both understanding and confidence in using SASL.

> *"…1 year; in the very same year, we were taught theory, and we had to practicals at the same time. They were well-integrated actually."*

At Sefako Makgatho University, participants indicated that they were taught SASL theory in their third year, with clinical training taking place in their fourth year. Participant 7 shared that learning how to sign in their final year felt like a delayed introduction to the Deaf community, as they were

only then starting to engage with SASL and the practical aspects of communication with Deaf individuals. This gap in exposure and training seemed to affect their overall preparedness and confidence in providing services to the Deaf community.

> *"…you can't learn sign language in a final year. For me, it's like, something new. It's like now you're introducing me to the Deaf people while I'm doing final year – all other years, I didn't know about it – I didn't get information about sign language or the Deaf community. So, at least, if it can be introduced 1st year, as much as other modules"*

Furthermore, six participants from different universities expressed that making SASL a compulsory course from first year through to the fourth year would be beneficial. Participant 2 and Participant 7, who studied at Sefako Makgatho University, both emphasized that learning a language is a continuous process. They stated that starting SASL from the first year and continuing through to the fourth year would ensure more comprehensive learning, providing sufficient time for both theoretical knowledge and practical application. This extended exposure would likely improve their confidence and competence in interacting with the Deaf community.

> Participant 2*: "…Learning language is an ongoing thing and I feel like it would have been better if we had started it in 1st year instead throughout to fourth year."*
>
> Participant 7*: at least, if, that can actually be done from 1st year to 4th year as a course, sign language… It has to be introduced from, uh – you have to know it from 1st year…"*

Participant 6 emphasized that SASL should be integrated into the curriculum from the first year for STAs and AUDs, and it should be recognized as one of the essential modules. This would ensure that students are equipped with the necessary skills and knowledge to communicate effectively with the Deaf community. Similarly, Participant 10, who studied at the University of the Witwatersrand, shared the same perspective as Participants 7 and 2. They also believed that making SASL a continuous part of the curriculum, from the first year through to the fourth year, would be beneficial for building proficiency and confidence in using SASL in their professional roles.

> *"Maybe the sign language needs to be carried out from first year until the last year: for someone to be able to carry out sessions and your clinical work in Sign Language…."*

SUBTHEME 3: Factors affecting language retention and usage

Four participants reported that not frequently encountering the Deaf community in their workplaces contributed to their inability to effectively use sign language. This lack of exposure to Deaf individuals in their professional environments made it difficult for them to practice and maintain their SASL skills. Without regular opportunities to engage with the Deaf community, these participants struggled to apply what they had learned during their training. This led to a decline in their confidence and ability to use SASL in real-world situations.

> *"The problem with that is, you don't get to be dealing much with the SASL … users a lot- to such that ehrr… you can then have a patient like that today, and then have the next one in like 9 months from then. So, therefore, if in any other language you can only be more proficient on it-depending on how often you use it." (*Participant 8)

Furthermore, Participant 6 highlighted that the effectiveness of using SASL as a professional is largely dependent on how frequently they have the opportunity to treat Deaf individuals or SASL users. The more often professionals engage with Deaf patients, the more likely they are to retain and improve their sign language skills, thereby increasing their confidence in communication.

However, infrequent exposure to Deaf individuals in their practice settings can lead to a diminished capacity to use SASL proficiently.

> *"…and why is it important to learn this language and not use it to help others- then you might not see the importance of it. There's also…(pause)… As an individual, you also tell yourself that okay- what are the chances of me coming across a Deaf patient. For some people they can go 10-20 years without treating a patient that's deaf, and then you get some of us who encounter like more or less, once every 5/6 months. So, then I know that this is necessary. So, I think as STAs & AUDs- it's all about people realising what's important. Sometimes what's important to you might not be important to me- unfortunately, that's just how it is."*

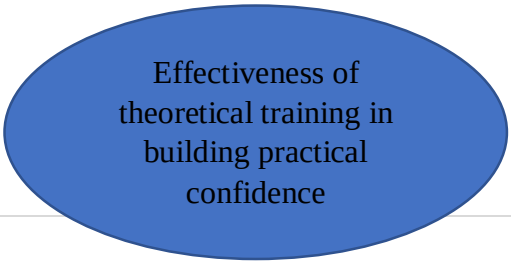
Participant 3*: "...we never got opportunities to use sign language because as soon as I finish doing sign language, I started forgetting most of the signs."*

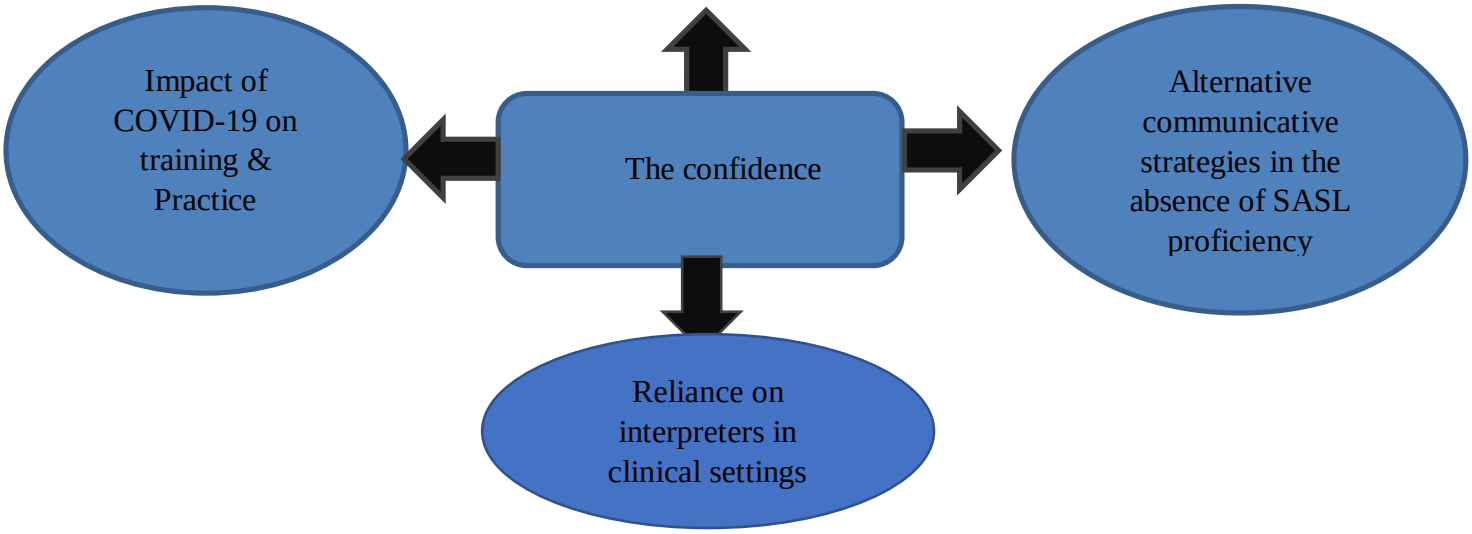
Participant 11 alluded to the idea that infrequent interaction with Deaf individuals often led to his forgetfulness of the language. He noted that without regular practice or the opportunity to use SASL in his professional setting, he found it challenging to retain the skills he had learned, which impacted his ability to communicate effectively with Deaf clients. This highlights the importance of consistent use and exposure to SASL in maintaining language proficiency.

"...I just did it for 3 months and that was it- I never had to do sign language again... ya...[yes] you forget about it."

Theme 3: Confidence

Another objective of this study was to explore STAs and AUDs' confidence in providing services in SASL. Four subthemes emerged from this study, shedding light on the varying levels of confidence professionals have when interacting with Deaf individuals and using SASL in their clinical practice. These subthemes provided valuable insights into factors that influence confidence, from formal training to practical experience, and how they impact the professionals' ability to serve the Deaf community effectively.





SUBTHEME 1: **Impact COVID-19 on training and practice**

Three participants expressed how the Covid-19 pandemic negatively affected their ability to engage in clinical training with the Deaf community. The restrictions and safety measures during the pandemic created barriers for these professionals, particularly in accessing in-person interactions and hands-on experience with Deaf clients. As a result, these participants reported that their exposure to SASL and Deaf culture was limited, which impacted their confidence in using SASL during their clinical training and practice.

> *"No... the reason why it was a month, it was because covid-19 happened. So, in that time, it was not really like full-on full-on because-we ended up having to stop and ended up taking whatever we got at the time…, Sign language was done in person. That's why I said it ended abruptly, because it was the time when covid-19 just hit… the lockdown started… I never got the opportunity to go for my practicals."* Participant 6

> *"We only did the training with (lecturer's name), so it was just a theoretical component. We didn't go to Deaf schools for training due to covid-19. In our 4th year-we were not able to visit those schools. So, we were only doing it online. So, we didn't… there was no training."* Participant 4

Participant 3 highlighted the extent to which Covid-19 impacted their academics, particularly in the context of clinical training. They noted that some critical clinical sessions, such as aural rehabilitation, could not be attended due to the restrictions imposed by the pandemic. This disruption in their training limited their exposure to hands-on experience with Deaf clients and further hindered their development of practical skills in SASL, ultimately affecting their overall confidence in delivering services to the Deaf community.

> *"…Ah, we had classes for aural rehab 4th year, but it was… So, we didn't have, uh, actual practicals. So, we only had, uhm, I think we had aural rehab – I think it was in 3rd year – I'm not sure – late 3rd year… But we never had aural rehab for practicals. Because of COVID-19. Ja, because uhm, remember that everything was suspended for a moment and when we went back to school, eh, it was just normal audio practicals, and then we had a vestib clinic [vestibular clinic] and a hearing aid clinic and then that's it. We only had those clinics."*

Subtheme 2: Reliance on interpreters in clinical settings

The inability to communicate with patients in their native language or the language of their choice often led to feelings of low confidence among healthcare professionals. This language barrier has been found to hinder their ability to provide adequate informational counselling, leading to a decrease in self-confidence. Additionally, it has resulted in reduced patient participation in decision-making processes. As a result, the use of interpreters or mediators became essential in many instances.

In this study, the use of interpreters or mediators was met with a mix of positive and negative feelings by participants. Eight out of twelve participants reported relying on the assistance of an interpreter or a mediator (e.g., colleagues, family members). Despite the recognition of the need for interpreters, six of the eight participants expressed negative feelings about relying on them. This sentiment likely reflects frustrations about not being able to communicate directly with Deaf patients and the challenges it brings in building rapport and providing effective care.

Participant 1 made use of colleagues to assist with communication with patients. However, she expressed her inability to probe further into the patient's concerns or provide more detailed information, as she felt limited in her ability to communicate directly. This reliance on colleagues not only impacted the depth of communication but also highlighted the challenge of ensuring that the patient's needs and preferences were fully understood and addressed.

> *"It was challenging, first thing is that we are both at work, everyone has their work, so I had to stop what they were doing and asked them to interpret for me. So ya…[yes] and also another thing is you also wanna probe more in terms of the problem, but you are just taking whatever that they just gave you because, you don't want to stop them any further from what they were doing. So, it was not nice."*

Participant 3 highlighted that she felt the use of interpreters hindered patients from being open with her, as they became overly reliant on the interpreter or mediator. This dependency, she believed, created a barrier to more authentic and direct communication, making patients less comfortable or willing to express themselves fully. She noted that this reliance on a third party for communication could limit the effectiveness of patient-provider interactions and hinder the establishment of trust between them.

> *"I don't know if I should say that it was a bit of embarrassing because, patients come to the department expecting that we can…as audiologists, communicate with them without having to call in that person. So, it's a bit embarrassing, now because you must rely on the other person to tell you what's going on, and you find that patients sometimes omit certain information- they are not really open especially when doing case history: they are not really open about what is going on, other conditions they have. So, it's a bit embarrassing and challenging at times.*

Participant 9 reported that many things are lost in translation when using interpreters, which in turn negatively affects the communication process. This often results in important nuances, emotions, or details being omitted or misinterpreted, further complicating the interaction. As a result, the effectiveness of communication between healthcare professionals and Deaf patients can be compromised, potentially leading to misunderstandings and a less optimal service delivery.

"It was embarrassing, you'd feel like you need to know more, you don't feel like you gave this patient your best. Because there is a lot that is lost in translation also. So, you don't know if the grandmother, or the mother's patient really explained what I told them. You don't feel like yea I've done this."

Participant 10: *"Umm… it honestly felt like… I felt inadequate. I felt like I wasn't fully doing what I was supposed to be doing. Because I am lacking in that part- in sign language. So now I had to bring in someone who probably had to leave their duties to come and help me out. It felt like I was a bit of a burden for some time. So ya…[yes]"*

Furthermore, three participants emphasized the importance of having an interpreter during professional-patient interviews. They stated that interpreters are essential in ensuring clear and accurate communication, particularly when discussing sensitive or complex information. Having a qualified interpreter present not only helps bridge the communication gap but also ensures that Deaf patients can fully understand and engage in their healthcare decisions. This, in turn, fosters a more effective and empathetic healthcare experience for Deaf individuals.

Participant 7: "…It was very amazing. It was very amazing. if that person wasn't there initially, I don't think I would have probed. But him being there, I managed to probe, like, a lot of questions. I managed to follow – to do follow-up questions. But, otherwise, for now, ah, it's much better."

Subtheme 3: Alternative communication strategies in the absence of SASL proficiency

All participants reported that the use of alternative communication strategies helped alleviate communication breakdowns between them and the Deaf community. Writing and fingerspelling were the most commonly mentioned strategies used to bridge gaps in communication. These methods were employed by all participants when direct communication in SASL was not possible or when they encountered difficulties in understanding each other. Writing, in particular, allowed for clear, direct communication, while fingerspelling served as a supplementary tool to convey specific words or names. Despite these efforts, the participants acknowledged that these strategies

were not always ideal and highlighted the need for better proficiency in SASL to enhance communication and service delivery to Deaf individuals.

> *"Writing, and Fingerspelling, I learnt from my institution. So at least I was able to use that: spell what I wanted instead of using the sign."* Participant 1

> *"…but then luckily, the one that I interacted with, they were able to like to write down. So, it was easier in that way. Because I couldn't like… comprehend the signs, and I couldn't like sign back to them. So mainly the communication was writing down." Participant 5:*
> *"Alright, uhm… I have been fortunate to meet a lot of, uh, Deaf patients who had some literacy skills…"* Participant 2

Even with the use of communication strategies, some participants expressed that while these methods helped facilitate communication with Deaf/SASL users, they still felt that the interaction took significantly longer compared to if they were proficient in sign language. Participants noted that relying on strategies such as writing or fingerspelling could be time-consuming and sometimes led to frustration for both the healthcare professionals and the Deaf individuals. Despite the temporary usefulness of these strategies, the lack of fluency in SASL was seen as a barrier to efficient and effective communication, underscoring the importance of gaining proficiency in sign language to improve both the speed and quality of interactions with the Deaf community.

> *"The consultation was hard also, as most of the time I had to write, but it took longer than what a normal session would take due to the language barrier, and the counselling took a bit longer".* Participant 9

Additionally, nine participants identified that not all Deaf people/SASL users were literate or able to read, which further complicated the use of writing as a communication strategy. This limitation made it clear that writing, while helpful in some cases, was not always an effective tool for bridging communication gaps. Participants emphasized that relying on writing could sometimes lead to misunderstandings, particularly when dealing with individuals who had varying levels of literacy or who were more comfortable using visual or sign-based communication. This

highlighted the need for a more inclusive and accessible approach, such as increased training in SASL, to better support communication with the diverse Deaf community.

> Participant 9: *"...so the way that they read compared to hearing society does it is different, because there was a miscommunication, and they had a caregiver in the room to assist us."*

> Participant 3: *"Like... I always had a mini panic or a panic for a few minutes whenever I realize that we have Deaf patients and I must engage with them; because there's a lot going on my mind – I'm like, how am I going to talk to them? – They use sign language – do I... And if I can't use sign language – if I resort to writing down, will they be able to read English? – Because not all people are fluent in English; not all people can read and understand English; so, then if a person cannot understand English, then how do I communicate this – with this patient."*

Subtheme 4: The effectiveness of theoretical training in building practical confidence

Theoretical training plays a crucial role in shaping the foundational knowledge and critical thinking skills of professionals across various fields. However, its effectiveness in building practical confidence depends on how well it prepares individuals to apply theoretical concepts in real-world scenarios. While strong theoretical knowledge provides a solid intellectual foundation, it is often insufficient on its own to develop full practical competence and confidence (Eraut, 2004).

All the participants from Wits University (i.e., six participants) expressed that their unpreparedness in using sign language professionally was largely due to the content and structure of the training they received. Participant 1 appreciated that she was able to introduce herself in sign language, which served as a starting point for communication. However, she also felt that the training fell short in preparing her for more complex interactions, particularly when it came to asking questions or engaging in deeper conversation. This lack of readiness highlighted the gap between the theoretical training received and the real-world application required in clinical

settings, leaving participants feeling less confident in their ability to communicate effectively with Deaf/SASL users.

> ***"****I think it did, because at least you're able to introduce yourself to a Deaf person. I think introductions… was just all I was able to do. Because I can't ask the questions regarding the services that I am providing."*

Participant 5 reported that the content they were taught during their SASL training was insufficient to support her in providing effective services to a Deaf patient. She expressed that the limited scope of the theoretical training left her unprepared for the complexities of real-world clinical interactions with Deaf individuals. This further underscored the challenge of translating theoretical knowledge into practical skills, particularly when dealing with diverse communication needs in a clinical setting.

> *"No… no… it didn't because I feel like in 2016, they just give you basics of it… like greetings, family members, weather, months, places. That's not enough to like to have a conversation with someone. And like even worse to have like a clinical interaction with a patient if you know what I mean… like your clients when you do."*

Participant 10 and Participant 4 both highlighted that the content provided during their theoretical SASL training at their respective undergraduate institutions was inadequate. They emphasized that more in-depth and comprehensive instruction was needed to better prepare them for the practical application of SASL in their professional roles. Both participants felt that the existing training did not equip them with sufficient knowledge and skills to communicate effectively with Deaf patients in a clinical setting. This feedback reinforces the need for a more robust curriculum that bridges the gap between theory and practice.

> ***"****Uhm… because I feel like, with sign language; the sign language that we did- ya…[yes] it's not … it's like you're learning the basics of sign language- for you to be able to pass your exam; just for you to be able to say 'hello' and exchange pleasantries with someone who is Deaf or someone who uses sign language. Unlike having to be able to carry out a full conversation with someone. So, I feel like maybe we needed ummm… more…."*

Participant 4: *"…they gave us a good foundation; but our… in terms of the therapy we're giving we needed a little bit more than just basic spelling, colours, directions, and… you know, like we needed a little bit more conversational sign language that may have assisted in the practical, yea."*

Participant 9 expressed that the content of their SASL training was not in-depth enough, which resulted in her feeling ill-prepared to provide adequate assistance to Deaf patients. She explained that the lack of comprehensive training left her unable to effectively address the communication needs of Deaf individuals in a clinical setting. This highlights the need for more extensive and detailed instruction in both the theoretical and practical aspects of SASL to ensure healthcare professionals are fully equipped to serve the Deaf community.

"No, because it was basic, it was just an introduction to the Deaf community, and even the language was basic, it wasn't in depth, now I am not well informed with how to deal with a Deaf patient."

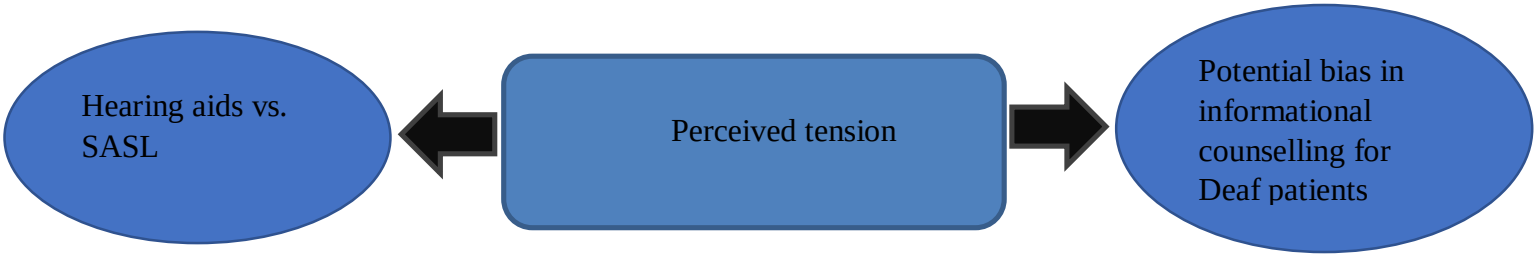
Participant 3 shared that the content received during her undergraduate training did not adequately prepare her for her role as a speech therapist and audiologist. She felt that the limited SASL training left her unable to perform certain duties effectively, especially when interacting with Deaf patients. This lack of preparedness emphasized the importance of a more thorough and practical approach to SASL training within the curriculum, to ensure that healthcare professionals can confidently fulfil their responsibilities and cater to the needs of the Deaf community.

"I don't think it prepared us specifically for audio[audiology] because we can't conduct a case history using sign language, we can't instruct using sign language, we can't give feedback, you know? Uh, varsity gave us abnormal – what's this – abnormal vocabulary, like food and stuff – and stuff – but it wasn't really tailored for us so that we can use it to, ah, see patients."

Theme 4: Perceived tension

The final objective of the study was to explore participants' views on the tension between AUDs and STAs, and the Deaf community. Participants were asked whether they were aware of any

tension between them and the Deaf community. Two key subthemes emerged from this discussion, as outlined below.



Subtheme 1: Hearing aids vs SASL

All the participants acknowledged being aware of the tension between STAs/AUDs and the Deaf community. Participant 6 highlighted that one of the main points of tension stems from STAs and AUDs attempting to provide Deaf individuals with hearing aids. This approach is often perceived as conflicting with the Deaf community's preference for using SASL as a primary mode of communication, rather than relying on assistive technologies like hearing aids.

Participant 6 reported that the tension he is aware of involves STAs and AUDs attempting to provide Deaf individuals with hearing aids, which often creates a conflict with the Deaf community. The community tends to view hearing aids as unnecessary or even detrimental, as their primary preference is using SASL for communication, rather than relying on hearing aids or other assistive technologies.

> *"The tension I've heard of is that they don't want to actually hear. So, this whole thing of us trying to test their hearing and trying to give them hearing aids- that's the one tension that I know of…"*

Participant 4 is aware of the tension and suggests that a middle ground should be found between STAs/AUDs and the Deaf community. This participant believes that both perspectives need to be respected, with an emphasis on finding solutions that acknowledge the Deaf community's preference for SASL while also considering the potential benefits of hearing aids or other interventions where appropriate.

"So, I think there is a lot of misconceptions on what we do as STAs, I think a lot of people assume that we just want to fit everyone and force everyone to speak and that's our end goal. But maybe it needs more advocacy from our side or people just be more open to what we actually do. Because in a lot of cases we're not even fitting hearing aids or putting/trying voicing- it's just… children who are delayed in SASL- that's their language and they have a language delay in that. So, we're just trying to catch them up in terms of that… SASL, it has got nothing to do with speech or voicing or hearing aids. You know? I think there is that misconceptions about what we actually do – which is unfair. But also, a lot of the time, some STAs they can force voicing, force things that parents are not comfortable with. So, I think we need to find like a middle ground."

Participant 1 expressed that she felt there was tension between STAs/AUDs and the Deaf community while she was still studying at her institution of higher learning. She noted that the focus on hearing aids and other assistive technologies in her training sometimes overshadowed the importance of learning SASL and understanding the Deaf community's culture, contributing to a sense of disconnection and misunderstanding.

"I think I perceived this when I was doing my first year with the Deaf lecturers in the university. But I observed it with our lecturers, where they would say things like ahhhm… the STAs want to fix them and they don't want to be fixed, they don't want hearing aids: I left my hearing aids a long time ago and I still don't want them…"

Participant 3 acknowledged the tension between STAs/AUDs and the Deaf community but emphasized that members of the Deaf community should recognize that STAs/AUDs are flexible in their approach. She pointed out that the relationship should not be solely about "fixing" Deaf individuals, but rather about providing a range of services and support tailored to their needs, acknowledging the complexity of communication and cultural differences.

" whenever one of the members, or when the Deaf community looks at us, they think that we part of the medical model- that there is something wrong with them, that we need to fix them, we need to give them hearing aids, we need to do something about the hearing loss.

So, I think that's what causes the tension, and I don't think that they are aware that we are actually quite flexible. If nothing can be done about the hearing, or if they don't want anything to be done about their hearing, we can resort to using sign language as a mode of communication. It's just that we are not so fluent with sign language, but we are actually quite flexible. uhmm. we can do one or the two things." Participant 3

Subtheme 2: Potential bias in informational counselling for Deaf patients

The second subtheme emerged from reports of biased informational counselling. Seven participants revealed that they often provided unequal information to the parents of Deaf children/SASL users.

Participants 10, 3, 6, and 4 shared similar perspectives, noting that their provision of information could be considered biased due to their greater knowledge and familiarity with hearing aids compared to SASL. This imbalance in expertise often led them to focus more on hearing aids, inadvertently sidelining SASL as a viable communication option, which they recognized as a limitation in their counselling practices.

"My knowledge of sign language and hearing aids are not on the same level, so I'm probably going to be biased based of what I am currently doing – like, based of the company or kind of caseloads I work with currently... Uhm, my feedback would definitely be biased," Participant 10

"From my side, I don't think I gave enough information on sign language…" Participant 3

"No I don't think I had enough knowledge in terms of Sign Language, even just in terms of referrals -to go to, and how to get into schools like that, I definitely did not have enough knowledge at the time." Participant 4

"I always lean more towards the hearing aid, and that is because of the factors that I've mentioned. Because there's more to it than just hearing people speaking. I don't know

enough about sign language- even like number of schools where sign language is being taught… I can honestly say that I don't know a lot. I don't even know at what age… what is the requirements for sign language school… so it is kind of hard to be an advocate. But I don't have the counsel to say if you learn sign language…. 123, I don't have that. But when it comes to hearing aids, I can say- your child will be able to hear 1,2,3 based on the results on the test… that I can back up- as more informed on that." Participant 6

Additionally, it is important to highlight that five participants relied on schools adjacent to their workplaces to supply all the information a parent may require regarding sign language. These participants expressed that, due to limited knowledge and training in SASL, they often referred parents to educational institutions where Deaf education and sign language expertise were more readily available. This reliance on external sources further emphasized the gap in knowledge and the need for more comprehensive training in SASL within their professional settings.

Participant 2*: "Information that… there is a Deaf community, well they can learn…ummm…. sign Language … from where I work, our closest liaison is Dominican school for the Deaf, you see… so technically I refer them to Dominican. That's basically the advice I give them. Then I depend on Dominican to give them umm… the complete knowledge about the Deaf community and Deaf culture. I can only tell the caregiver that the child cannot hear, if it is a child, the client cannot hear and there would be no benefit from hearing aids. Therefore, the way forward now is if there is no chance for cochlear implants then ummm…. yeah"*

Participant 9*: "Um… with advice on sign language is… what I usually do is we have a whole spreadsheet with sign language schools that are close by, that we work hand in hand with. So, I'd recommend those schools to the mother."*

Participant 3: *"I normally say to the parents if you need more information… because I normally refer them to Deaf schools. So, I would say if you need more information you can just contact the schools, as from my side this is what I know… and ya.[yes] I don't really*

provide much, but I normally refer them to go and ask… if they have enquiries to ask the schools."

CHAPTER 6: DISCUSSION

This chapter provides a discussion of the results obtained from both the online survey and the semi-structured interviews, as presented in Chapter 5. The findings from these two phases of the study will be discussed in relation to existing literature from both international and local sources. This discussion aims to provide a deeper understanding of the challenges faced by STAs and AUDs in their interactions with the Deaf community, particularly concerning their knowledge and use of SASL and their role within the Deaf community.

6.1 PHASE 1: DISCUSSION

Knowledge of Deaf Culture Among STAs and AUDs

By age:

Findings from this study suggest a generational shift in Deaf culture knowledge, with younger professionals (22–30 years) demonstrating greater awareness. This trend is likely influenced by recent curriculum updates that emphasize cultural competence (Aarons & Akach, 2002; Reagan, 2010). In contrast, older professionals (41–50 years) report significantly lower levels of knowledge, reflecting earlier training models that primarily framed deafness as a medical condition (Humphries et al., 2012; Ladd, 2003).

Although younger professionals appear to have greater exposure to Deaf culture, their understanding remains somewhat superficial, as evidenced by their neutral or 'somewhat knowledgeable' responses. While there has been an increase in teaching on Deaf culture, many curricula still predominantly present deafness through a medical lens. This suggests that, despite improvements of STAs and AUDs, there is a need for deeper engagement and immersive experiences with the Deaf community. Given the observed generational trend, it can be argued that future AUDs and STAs may be increasingly inclined to learn more about Deaf culture, which means that training institutions have a critical opportunity—and responsibility—to expand curricula that prioritise cultural competence, Deaf identity, and SASL. By fostering early and meaningful exposure to the Deaf community, future professionals will be better equipped to

deliver inclusive, respectful, and person-centred care that aligns with the values and lived experiences of Deaf individuals. This shift not only enhances service provision but also contributes to dismantling the historical tensions and misunderstandings between professionals and the Deaf community.

Historically, Deaf education and SASL training were not prioritized in healthcare curricula, particularly in audiology and speech therapy programmes (Lesch, 2019). Older training models offered minimal exposure to Deaf individuals and SASL, often introducing them only in later years of study or through optional workshops (Lesch, 2019). In contrast, more recent cohorts—especially those aged 22–30 years are experiencing earlier and more integrated SASL training (Wilson & Moodley, 2021). This shift likely reflects evolving social attitudes, increased recognition of linguistic diversity, and a growing emphasis on cultural competence in healthcare (Lesch, 2019). It also aligns with a broader shift toward a human rights-based approach to disability, which emphasises equality, inclusion, and dignity, as well as the socio-cultural model of deafness that recognises Deaf individuals as a linguistic and cultural minority rather than as people with a medical deficit (World Federation of the Deaf, 2003; Skutnabb-Kangas, 2000; Kusters et al., 2017).

Understanding Deaf culture is not optional but essential for STAs and AUDs to provide effective, culturally responsive care. Without structured interventions, healthcare professionals risk perpetuating a medicalized view of deafness, which can alienate Deaf individuals and compromise the quality of care they receive (Bauman & Murray, 2009; McIlroy & Storbeck, 2011). Prioritizing cultural competence in training and professional practice can help foster a more inclusive, linguistically affirming approach to working with the Deaf community.

By profession

The comparison of knowledge about Deaf culture between STAs and AUDs, revealed some intriguing patterns in the self-reported understanding of Deaf culture among these two professional groups. The results suggest that STAs generally have a higher level of awareness compared to AUDs. Specifically, (61.1%) of STAs reported being knowledgeable about Deaf culture,

highlighting a relatively strong understanding among this group. This finding aligns with previous research that emphasizes the importance of cultural competency in speech-language pathology, suggesting that STAs, due to their direct interaction with Deaf individuals, are more likely to develop a higher level of cultural awareness (Wright et al., 2020).

In contrast, only one-third (33.3%) of AUDs reported being knowledgeable about Deaf culture which is a much lower proportion compared to STAs. This disparity is consistent with the literature, which indicates that AUDs, whose focus is primarily on medical and technical aspects of hearing and auditory processing, may not have as many opportunities to develop an understanding of Deaf culture (Boothroyd, 2018). This lower level of familiarity aligns with studies that suggest AUDs may be less exposed to cultural aspects and more focused on clinical skills (Duchan & McMorrow, 2002).

Additionally, the data reveals that nearly a fifth (16.7%) of AUDs reported a complete lack of knowledge about Deaf culture. In stark contrast, none of the STAs indicated a total absence of knowledge, with 0.0% of STAs reporting no awareness of Deaf culture. This stark difference aligns with research highlighting that cultural competency is often a required component in the training of STAs, whereas AUDs may not have the same level of required cultural training (National Association of Speech-Language and Hearing, 2016).

However, despite these observed differences in the self-reported knowledge of Deaf culture between the two groups, the Chi-Square test results indicate no statistically significant association between knowledge of Deaf culture and professional qualifications (p-value = 0.277). This finding aligns with other studies that suggest factors other than professional qualifications, such as personal experience, additional training, or exposure might be more influential in shaping knowledge of Deaf culture (Mitchell & Karchmer, 2004). The non-significant p-value supports the argument that qualifications alone do not guarantee cultural competence, a notion echoed in the literature (Field, 2013).

By university

Self-reported knowledge of Deaf culture varied among STAs and AUDs from different universities. Wits University had the highest percentage of knowledgeable respondents (38.5%), followed by Sefako Makgatho University (30.8%) and the University of Pretoria (23.1%). Notably, the University of Pretoria was the only institution where some AUDs reported having no knowledge of Deaf culture, raising questions about differences in curricula, clinical exposure, or engagement with the Deaf community across institutions.

However, the lack of a statistically significant association ($p = 0.626$) between university attended and knowledge of Deaf culture suggests that institutional differences alone do not determine this knowledge. Other factors, such as individual interest, exposure to Deaf culture, and additional professional training, may play a more critical role. This finding aligns with research emphasizing that cultural competence is not solely acquired through formal education but also through practical experience and community engagement (Khoza-Shangase & Mophosho, 2018).

Existing literature underscores the importance of Deaf culture knowledge for professionals working with Deaf and hard-of-hearing individuals. Research by Abrahams (2021) highlights the need for transformation in South African Speech-Language and Hearing (SLH) programmes to better integrate cultural and linguistic diversity, ensuring that professionals are adequately prepared to engage with and serve the Deaf community effectively.

The Importance of Deaf Culture in Speech-Language Therapy and Audiology

The study's exploration of the perceived importance of Deaf culture among professionals, segmented by qualifications and universities, underscores its significance in speech-language therapy and audiology. While differences emerged in how STAs and AUDs value Deaf culture, these variations were not statistically significant, suggesting that knowledge of Deaf culture is broadly valued across healthcare professionals.

By age

A strong majority (62.5%) of participants agreed on the importance of Deaf culture, aligning with broader healthcare trends emphasizing cultural competence. However, despite this recognition,

knowledge gaps persist, reinforcing the need for experiential learning beyond theoretical coursework. Interestingly, younger professionals demonstrated slightly lower perceived importance of Deaf culture compared to older counterparts. While younger professionals receive more inclusive education, they may not yet fully appreciate its practical relevance (Bauman, 2013; Storbeck & Martin, 2010).

The absence of a statistically significant association between qualification and knowledge levels supports previous research showing that professional titles alone do not determine cultural competence. Instead, personal experiences, continuous learning, and active engagement with the Deaf community play a more significant role in fostering cultural awareness (Stander & McIlroy, 2017).

By profession

The findings indicate that STAs place greater importance on understanding Deaf culture compared to AUDs. This may be attributed to the nature of their work, STAs engage more directly in communication and language therapy with Deaf individuals, making cultural competence essential to their practice. As Stander and McIlroy (2017) highlight, professionals in fields requiring direct patient interaction benefit significantly from understanding the communicative and cultural nuances within Deaf communities.

Conversely, AUDs placed comparatively less emphasis on Deaf culture, likely due to the nature of their role, which often focuses more on hearing assessments and medical management rather than direct communication. While AUDs frequently work with Deaf patients, their engagement with cultural and linguistic practices may be more limited. However, Meir et al. (2010) argue that audiologists can enhance their practice by developing a deeper understanding of Deaf culture and incorporating SASL into their interactions, leading to more holistic and inclusive care.

Differences in professional training and exposure to Deaf communities may also explain the variation in responses. Prior research suggests that professionals who engage more closely with Deaf individuals or receive specific training on Deaf culture are more likely to recognize its

importance (Aarons & Akach, 1998; Akach et al., 2009; Ganiso, 2012). This may account for STAs reporting a higher awareness of Deaf culture's significance compared to AUDs.

By university

University affiliation also influenced perspectives on Deaf culture. Participants from Sefako Makgatho University exhibited the highest recognition of its importance (80%), possibly reflecting greater curricular emphasis on Deaf cultural awareness. McIlroy and Storbeck (2011) suggest that institutions integrating Deaf culture more prominently into their programmes tend to produce graduates who prioritize cultural competence.

Although other universities acknowledged the importance of Deaf culture, the level of emphasis varied, potentially indicating differences in how programmes integrate cultural competence training. However, the lack of a statistically significant relationship between university attended and perceived importance of Deaf culture ($p = 0.741$) suggests that institutional differences alone do not determine this awareness. Instead, individual exposure, professional experience, and continued education play crucial roles in shaping professionals' perspectives.

This finding aligns with broader literature advocating for cultural competence in healthcare, emphasizing the need for inclusive practices across all professions (Bauman & Murray, 2009; Storbeck & Martin, 2010).

Distinction Between 'd' (deaf) and 'D' (Deaf)

By age

The study suggests that younger professionals demonstrate greater awareness of the distinction between "Deaf" (referring to the sociocultural identity of Deaf individuals who use sign language and engage with the Deaf community) and "deaf" (referring to the audiological condition of hearing loss). This increased awareness is likely due to evolving curricula that incorporate sociocultural perspectives on deafness (Leigh et al., 2018).

In contrast, older professionals, who were trained under curricula that primarily framed deafness from a medical perspective, may have had less exposure to these concepts. This generational difference highlights the need for continuous professional development to ensure that all practitioners remain informed about contemporary understandings of Deaf identity.

This trend aligns with broader shifts in speech-language therapy and audiology training, which increasingly recognize the importance of early, practical engagement with Deaf communities (Bauman & Murray, 2014). Providing ongoing training opportunities that incorporate sociocultural perspectives can help bridge knowledge gaps and ensure more inclusive and culturally responsive service delivery across all generations of professionals.

Medical view of deafness vs Cultural view of Deafness

By university

The findings reveal differences in how STAs and AUDs from various universities perceive Deafness, although these differences are not statistically significant ($p = 0.166$). At Wits University, all respondents (100%) identified with the cultural view of Deafness, with 60% acknowledging both the cultural and medical models. This suggests that Wits University provides strong exposure to Deaf culture, shaping students' perspectives. In contrast, at the University of Cape Town (UCT), only 20% of respondents integrated both views, showing a lower tendency to embrace both perspectives. Meanwhile, at Sefako Makgatho University, all respondents (100%) aligned with the medical view of Deafness, indicating a more biomedical focus in their training.

Notably, professionals from universities where both models were acknowledged (Wits and Sefako Makgatho) reported a higher level of knowledge about Deaf culture, suggesting that exposure to multiple perspectives correlates with greater cultural awareness. These findings are consistent with research emphasizing the influence of educational training on healthcare professionals' perspectives on Deafness. Studies suggest that institutions focusing on linguistic and cultural diversity tend to produce professionals more inclined toward the cultural model (Hyter & Salas-Provance, 2018). This explains why Wits University, where all respondents identified

with the cultural model, produces professionals with stronger cultural competence. Conversely, the strong preference for the medical model at Sefako Makgatho University aligns with literature indicating that biomedically focused programs tend to prioritize pathology-based approaches over cultural-linguistic considerations (Lane, 1992).

However, the lack of statistical significance ($p = 0.166$) suggests that university training alone does not determine perspectives on d/Deafness. Other factors such as personal interest, clinical exposure, and postgraduate learning may play a more significant role. Research by Listman et al (2011) emphasizes that direct interaction with Deaf communities is crucial in shaping healthcare professionals' attitudes, reinforcing the importance of real-world engagement.

By profession

The findings show that STAs prefer to integrate both the medical and cultural views of Deafness, with 80% adopting this dual perspective. In contrast, only 20% of AUDs held both views. Despite this, the chi-square test ($p = 0.698$) reveals no statistically significant association between professional qualifications (STA vs. AUD) and preferred perspectives on Deafness. This suggests that professional qualification alone doesn't determine one's perspective, but rather other factors like personal interest, practical experiences, or exposure to the Deaf community. Research indicates that healthcare professionals often lean toward the medical model due to their training (Hyter & Salas-Provance, 2018). However, the high preference for both models among STAs could reflect their greater interaction with Deaf individuals in their daily work. Research by Holcomb (2013) suggests that exposure to Deaf culture significantly influences professionals' perspectives, which may explain why some AUDs, who reported limited knowledge of Deaf culture, did not fully embrace either model. Additionally, Listman et al (2011) found that professionals who engage with Deaf communities are more likely to adopt both medical and cultural views, underscoring the role of direct experience in shaping perspectives.

By sex

The results show notable differences in how male and female STAs and AUDs perceive Deafness, although these differences are not statistically significant ($p = 0.383$). Both sexes had an equal proportion (50%) of respondents adopting the medical view of Deafness. However, only female

professionals (100%) recognized Deafness as a cultural identity, while no male respondents expressed this viewpoint. A significantly higher proportion of female professionals (86.7%) integrated both medical and cultural perspectives compared to males (13.3%). Despite these trends, the chi-square test suggests that sex does not significantly impact perspectives on Deafness, indicating that other factors, such as education, personal experiences, or exposure to Deaf culture, are more influential. This may be because perspectives on Deafness are not inherently linked to biological sex but are more likely shaped by the degree of cultural competence developed during training, the nature and depth of interaction with the Deaf community, and the frameworks emphasized during professional socialisation. These factors play a more critical role in influencing whether professionals adopt a purely medical view, a cultural-linguistic understanding, or an integrated approach to Deafness.

Previous research highlights how healthcare professionals conceptualize Deafness through the medical and cultural models. The medical model views Deafness as a condition requiring intervention (e.g., hearing aids or cochlear implants), while the cultural model views Deaf individuals as a distinct linguistic and cultural group (Lane, 1992).

Studies suggest that exposure to Deaf culture plays a crucial role in shaping these perspectives (Holcomb, 2013). The higher adoption of the cultural perspective by female respondents might indicate greater exposure to or empathy for Deaf identity among women, aligning with literature suggesting that female healthcare professionals often exhibit stronger interpersonal sensitivity and cultural awareness (Schouten et al., 2006). However, the lack of a statistically significant relationship means that sex alone is not a determining factor. Similar studies have found that healthcare professionals' perspectives are more influenced by their training and interactions with Deaf communities than by their sex (Listman et al., 2011).

Deafness as a Disability

Professionals remain divided on whether deafness should be classified as a disability. Some adopt a medical perspective, focusing on hearing loss and treatment, while others view Deafness as a cultural identity. Many respondents expressed neutrality, reflecting a growing awareness that

deafness is not inherently disabling but rather context-dependent. This aligns with the social model of disability, which argues that disability arises from societal barriers rather than individual impairments (Ladd, 2003).

By age

The study examined whether age influenced STAs and AUDs views on classifying deafness as a disability, particularly in relation to the medical model. The results revealed age-related differences. Among professionals aged 31–40, the majority (80%) agreed with the medical view that deafness is a disability, while 20% disagreed. Conversely, all respondents aged 41–50 (100%) opposed the medical perspective. Among the youngest group (22–30 years), opinions were more divided, with 41.2% agreeing with the medical model, 41.2% remaining neutral, and 17.6% disagreeing.

Despite these differences, the chi-square analysis ($p = 0.152$) found no statistically significant association between age and perspectives on the medical model of deafness. This suggests that while views may vary by age group, age itself is not a determining factor. These findings align with Ladd (2003), who suggests that perspectives on d/Deafness are shaped by multiple factors beyond age, including personal experiences, formal training, and exposure to Deaf culture. While younger professionals may have encountered more inclusive frameworks, the diversity of views in the 22–30 age group suggests that personal experience, rather than age alone, plays a more significant role in shaping perspectives on deafness as a disability.

By profession

The study also explored whether professional qualifications influenced views on deafness as a disability. The findings indicate that both STAs and AUDs exhibited similar patterns of agreement with the medical model. Half of the AUDs (50%) and nearly half of the STAs (44.4%) agreed that deafness is a disability, showing minimal differences between the two groups. However, STAs were more likely to disagree with the medical view (27.8%) compared to AUDs (16.7%), suggesting a slightly lower inclination toward the medical perspective among STAs. AUDs, in contrast, demonstrated a higher degree of neutrality, as reflected in Figure 5.12, where their responses did not strongly align with either the medical or cultural models.

Despite these observed differences, the chi-square analysis (p=0.92) revealed no statistically significant association between professional qualification and perspectives on deafness as a disability. This suggests that professional training alone does not determine views on Deafness, and that other factors—such as personal beliefs, clinical experiences, and exposure to Deaf culture—may be more influential. Research by Hyter and Salas-Provance (2018) supports this, emphasizing that professionals with greater interaction with the Deaf community or cultural competency training are more likely to adopt a cultural perspective rather than a purely medical one. The lack of statistical significance in this study reinforces the idea that professional experience and continued engagement with Deaf culture may play a more substantial role in shaping perspectives.

By university

The study also investigated whether the university attended influenced views on whether deafness should be classified as a disability from a medical perspective. The findings revealed notable differences among universities. At Sefako Makgatho University, all respondents (100%) agreed with the medical perspective, and 40% specifically identified with the medical model of deafness. In contrast, at Wits University, respondents were less likely to align with the medical model, with only 20% agreeing that deafness is a disability, while 40% disagreed.

Despite these variations, the chi-square analysis (p = 0.401) found no statistically significant relationship between university attended and perspectives on deafness as a disability. While institutional differences were observed, university training alone did not have a definitive influence on whether professionals regarded deafness as a disability from a medical viewpoint. These findings align with research suggesting that while educational institutions provide foundational training, other factors, such as personal experiences, exposure to Deaf culture, and ongoing professional development, play a crucial role in shaping perspectives (Hyter & Salas-Provance, 2018). Studies highlight that while universities can influence theoretical knowledge, attitudes toward Deafness are often shaped by real-world interactions and cultural competency integration into professional practice.

Motivation to Use SASL

By profession

The study reveals that both STAs and AUDs are highly motivated to assist the Deaf community. However, despite this motivation, inconsistencies in training and clinical exposure create significant barriers to the effective use of SASL. While many professionals interact with Deaf individuals, the frequency and depth of these interactions vary considerably, indicating a lack of uniform experience.

This variation in exposure aligns with existing research suggesting that motivation alone is not sufficient to ensure effective communication with Deaf clients. Instead, structured training, clinical experience, and ongoing professional development are essential to bridge the communication gap (Storbeck & Martin, 2019). Without formalized and consistent SASL instruction within professional curricula, many STAs and AUDs may struggle to acquire proficiency in the language, limiting their ability to provide equitable services to Deaf individuals.

Additionally, some professionals may feel hesitant to use SASL due to a lack of confidence in their skills, fear of making errors, or limited opportunities to practice with fluent signers. Others may rely on interpreters or alternative communication methods, which, while helpful, do not replace the benefits of direct communication in SASL. This highlights the need for greater institutional support and immersion opportunities,

Ultimately, while the motivation to use SASL exists among STAs and AUDs, its practical implementation depends on access to structured learning, clinical reinforcement, and a healthcare system that prioritizes linguistic accessibility for Deaf individuals.

‘Have you ever assisted anyone who is Deaf?’

By profession

This study explored whether STAs and AUDs differ in their involvement in assisting individuals who identify with the Deaf community or use SASL. The results indicated that the vast majority of both STAs (95.4%) and AUDs (100.0%) had assisted someone from the Deaf community, with only a small proportion of STAs (5.6%) reporting no such experience.

A Chi-Square test was conducted to assess whether there was a statistically significant relationship between professional qualification (STA vs. AUD) and experience working with Deaf individuals or SASL users. The analysis (p-value = 0.555) revealed no statistically significant association, suggesting that, irrespective of professional qualifications, most respondents had encountered and assisted individuals from the Deaf community.

This finding underscores that both STAs and AUDs have real-world exposure to Deaf individuals, highlighting the growing need for cultural and linguistic competency within their respective fields. The results align with broader research indicating that professionals in speech-language therapy and audiology are increasingly working with diverse linguistic and cultural groups, including the Deaf community (Hyter & Salas-Provance, 2018).

Furthermore, while professional training equips clinicians with theoretical knowledge, direct interaction with the Deaf community provides invaluable experiential learning. Such engagement fosters cultural competence, enhances awareness of Deaf identity, and improves practical communication strategies, including SASL proficiency. The lack of a significant relationship between qualifications and experience may reflect a broader shift in clinical practice, where exposure to Deaf individuals is becoming an integral part of the profession regardless of formal training pathways.

However, while these interactions are occurring, they do not necessarily indicate fluency in SASL or a deep understanding of Deaf culture. This highlights the ongoing need for increased clinical exposure, and immersion into the Deaf community to ensure that professionals can provide truly accessible and culturally affirming services to the Deaf community.

Practical Training of SASL

By university

The study highlights significant delays in the practical training of SASL within university programmes, posing a barrier to effective communication with Deaf clients. While theoretical exposure to SASL may occur early in some curricula, the late introduction of hands-on, practical training limits students' ability to develop fluency and confidence in using the language. This gap may result in professionals who recognize the importance of SASL but lack the proficiency to

engage effectively with Deaf individuals in clinical settings. This is a particularly significant finding, as it exposes a disconnect between awareness and practical competence. While theoretical knowledge of Deaf culture and the value of SASL may be increasingly acknowledged in professional training, without functional fluency and immersive experience, clinicians remain ill-equipped to deliver equitable and culturally responsive care.

Such limitations can lead to missed opportunities for meaningful interaction, reduced patient trust, and a failure to support the autonomy and communication needs of Deaf clients. Moreover, superficial exposure to SASL—without adequate reinforcement or real-world application—may give professionals a false sense of preparedness, which can further marginalise Deaf patients within healthcare systems.

Existing research underscores the necessity of earlier and more immersive SASL training to improve service delivery and strengthen relationships between professionals and the Deaf community (Reagan, 2010). Early exposure allows students to develop not only linguistic competence but also a deeper cultural understanding, fostering greater sensitivity and inclusivity in their practice. Without consistent practical training, professionals may struggle to bridge the communication gap, reinforcing the barriers that Deaf individuals often face in healthcare and therapy settings.

The study's findings emphasize the need for universities to introduce SASL training earlier and to integrate more practical engagement with the Deaf community throughout students' education. Although universities vary in their timelines for SASL instruction, this inconsistency creates disparities in competency levels and cultural competence among graduates. Standardizing SASL education across academic programmes—through structured curricula that combine theory with practical immersion—could help address these gaps. By ensuring that all STAs and AUDs receive early and continuous hands-on training, universities can enhance the overall preparedness of professionals to work effectively with Deaf patients, ultimately improving communication outcomes and patient care.

Interpreter Services

By profession

The findings of this study indicate that a significant proportion of STAs (72.2%) rely on interpretation services when communicating with the Deaf community, whereas fewer AUDs (33.3%) do. These results align with existing research suggesting that professionals' reliance on interpreters is influenced by their level of sign language proficiency and their experience working with the Deaf community (Hyter & Salas-Provance, 2018). In general, professionals with limited fluency in sign language, such as STAs, are more likely to depend on interpreters and alternative communication strategies, as they may not have received extensive SASL training.

Conversely, AUDs often undergo training in communication disorders and may have greater familiarity with Deaf culture, potentially leading to a higher level of SASL proficiency. This could explain why AUDs in the study reported less dependence on interpreters compared to STAs. Despite this, the chi-square analysis (p-value = 0.795) found no statistically significant relationship between professional qualification and reliance on interpretation services. This suggests that factors beyond formal qualifications, such as individual experience, institutional training, and workplace exposure, may play a more significant role in determining whether professionals require interpreters when engaging with Deaf individuals.

Furthermore, research suggests that greater exposure to Deaf culture and structured sign language training may reduce the reliance on interpreters, but these factors vary by location and training institution (Padden & Humphries, 2005). While some professionals may gain fluency through direct experience with the Deaf community, others may lack the opportunities necessary to develop independent communication skills, reinforcing their dependence on interpretation services.

These findings highlight the importance of equipping STAs and AUDs with stronger sign language skills and cultural competence, healthcare professionals can reduce communication barriers and foster more inclusive and effective interactions with Deaf clients.

Confidence Using SASL

The findings from this study highlight significant gaps in both confidence and competence among STAs and AUDs when communicating with the Deaf community using SASL. Despite SASL

being officially recognized as a national language, many professionals still struggle with effectively engaging Deaf individuals. The self-reported levels of confidence and competence reflect broader barriers in healthcare, where professionals often lack the necessary sign language proficiency and cultural awareness needed for effective communication (Storbeck & Martin, 2019).

This aligns with research that underscores the importance of structured sign language training, as professionals without adequate SASL proficiency often experience reduced confidence when interacting with Deaf patients. The persistent communication barriers suggest a systemic issue in training programmes, where theoretical knowledge may not be sufficiently reinforced by practical engagement (Napier et al., 2020).

By profession

The study reveals that only 12.5% of participants felt confident in their ability to communicate effectively with Deaf individuals, while 25% reported feeling not confident at all. This finding mirrors existing research by Wilson and Moodley (2021), which indicates that many AUDs lack the communication skills necessary for direct engagement with Deaf patients and instead rely on interpreters or alternative communication methods.

Interestingly, the study found no statistically significant relationship between professional qualification and confidence levels ($p = 0.077$), suggesting that the lack of confidence is not necessarily linked to whether one is an STA or an AUD. Instead, it points to broader systemic issues in training programmes, where professionals may not receive sufficient exposure to practical SASL communication during their education. Without consistent and immersive sign language training, both STAs and AUDs may struggle to develop the necessary skills to communicate confidently and effectively with Deaf patients (Lesch, 2019).

These findings underscore for more practical engagement with Deaf communities in professional training programs. By enhancing SASL instruction and ensuring early and consistent exposure to Deaf individuals, healthcare professionals can gain the confidence and skills necessary to provide equitable and inclusive care.

By age

The timing of training also plays a crucial role in shaping professionals' confidence in communicating with Deaf patients. Younger professionals who receive earlier SASL training tend to exhibit greater confidence, as they are more likely to develop both technical sign language skills and cultural competence over time (Napier et al., 2020). Earlier exposure to SASL allows professionals to engage directly with Deaf patients, reducing reliance on interpreters and improving overall communication outcomes. Studies show that direct interaction between healthcare professionals and Deaf patients fosters trust, enhances patient satisfaction, and improves healthcare experiences (Storbeck & Martin, 2019).

Conversely, older professionals, particularly those who received limited or delayed training in SASL, may face challenges in achieving similar levels of confidence and fluency. Research indicates that language acquisition is most effective when introduced early—a principle that applies to SASL just as it does to spoken languages (Lesch, 2019). Professionals who are only introduced to SASL later in their education or career may struggle to develop fluency, especially if clinical placements and real-world engagement with Deaf individuals are minimal.

The reliance on alternative communication methods, such as interpreters, written notes, or gestures, has been identified as a barrier to inclusive care (Wilson & Moodley, 2021). While interpreters can be invaluable in facilitating communication, over-reliance on them can limit direct engagement between healthcare providers and Deaf patients, potentially affecting the quality of care and patient autonomy.

Ultimately, the timing of SASL training remains a key factor in shaping confidence and competence. Early immersion enables professionals to integrate SASL more naturally into their practice, whereas late-stage exposure can hinder fluency and confidence. These findings reinforce the need for standardized, early, and ongoing SASL education across all cohorts to ensure that professionals of all ages can effectively communicate with Deaf patients.

Timing of Clinical Training

By profession

The study identifies clear differences in the timing of clinical training based on professional qualifications. STAs tend to receive earlier exposure to Deaf individuals and SASL users, with

33.3% of STAs reporting clinical training in their first year. In contrast, AUDs typically do not gain exposure to Deaf patients until their third or fourth years.

This disparity is significant, as early engagement with the Deaf community is strongly linked to greater confidence and competence in SASL communication (Lesch, 2019). Research suggests that early exposure to Deaf individuals allows professionals to develop a deeper understanding of cultural nuances, linguistic proficiency, and practical communication strategies (Napier et al., 2020).

In contrast, AUDs—who often experience delayed exposure to Deaf patients—may struggle to integrate SASL into their clinical practice effectively. Limited practical experience early in training can hinder the development of essential language skills, making it more challenging for professionals to confidently engage with Deaf patients in healthcare settings. Wilson & Moodley (2021) emphasize that clinical exposure to Deaf individuals is critical for building both cultural competence and sign language proficiency, both of which are fundamental to ensuring effective communication in healthcare.

This study underscores the significant impact of training timing on confidence and competence in SASL communication. Younger professionals who receive earlier and more consistent SASL training demonstrate greater confidence and competence, while older professionals (who may have experienced delayed or insufficient training) often face greater challenges in communicating with Deaf patients.

Similarly, differences in clinical training timelines between STAs and AUDs highlight how early exposure to Deaf individuals can enhance SASL proficiency and cultural competence. Given these findings, it is crucial to implement early and immersive SASL training in university curricula and professional development programs. By prioritizing inclusive education and continuous training, the healthcare sector can foster a more equitable, accessible, and culturally competent environment for Deaf patients.

Competence When Communicating with the Deaf Community

By profession

The study reveals that many participants rated themselves as only "somewhat competent" in communicating with Deaf individuals, acknowledging their limited ability to engage effectively. A significant 25% admitted to being "not competent at all," highlighting a widespread challenge among professionals in speech therapy and audiology. These findings align with the research of Napier et al. (2020), which suggests that even healthcare professionals with formal training in communication sciences often struggle with the nuanced nature of sign language.

Despite the recognition of SASL as an official language, the lack of fluency and confidence among professionals limits their ability to provide effective, inclusive care. This reinforces the need for targeted SASL training programs that go beyond basic language proficiency. Instead of only teaching general SASL vocabulary, training should focus on context-specific applications relevant to clinical interactions, ensuring that professionals can effectively communicate medical information, assess patient needs, and foster trust within the Deaf community.

Interestingly, the study found no statistically significant difference in competence levels between Speech Therapy Assistants (STAs) and Audiologists (AUDs) ($p = 0.054$). This suggests that both professional groups face similar barriers in SASL communication, regardless of their specific qualifications or roles. This finding is particularly important, as it challenges the assumption that AUDs—who often work closely with Deaf and hard-of-hearing individuals—would necessarily have higher competence in SASL than STAs.

These results point to a broader systemic issue in professional training rather than differences in individual expertise. The lack of an immersive SASL education across training programs may be contributing to the uniform struggles seen among STAs and AUDs alike. Without proper training and reinforcement through practical experience, professionals may lack both linguistic proficiency and cultural competence, limiting their effectiveness in engaging with Deaf patients.

Using Other Communication Strategies

Figure 5.44 presents findings on whether STAs and AUDs use alternative communication strategies, such as writing and texting, when interacting with the Deaf community. The results

revealed a strong dependence on non-SASL methods, with 95.8% of participants reporting that they use alternative strategies to facilitate communication.

The findings indicate a high reliance on non-SASL communication methods, particularly writing and texting, as the primary strategies employed by the majority of professionals. This may be attributed to limited fluency in SASL or practical constraints that make these alternative methods more accessible and convenient in certain situations. As many STAs and AUDs may not have the required proficiency in SASL to communicate effectively with Deaf individuals, they often resort to written forms of communication or texting as practical workarounds (Hyter & Salas-Provance, 2018).

This trend of using alternative communication strategies reflects a broader challenge faced by healthcare professionals who, despite their motivation to assist the Deaf community, find themselves relying on non-SASL methods due to insufficient language proficiency or lack of immersive training.

By profession

The overwhelming dependence on non-SASL communication methods, such as writing and texting, underscores the challenges in direct engagement with Deaf patients. While these methods offer a temporary solution, they fail to provide the same level of nuance and accessibility as sign language, especially in clinical settings where real-time interaction is essential (Napier et al., 2020). Writing and texting may suffice in less urgent or complex situations, but they can limit the ability to convey important medical information accurately and in a timely manner.

Interestingly, the study found no significant relationship between professional qualifications and the use of alternative communication methods ($p = 0.077$). Regardless of professional qualification, both STAs and AUDs appear to face similar barriers in using SASL effectively, leading to a reliance on alternative communication methods.

Moreover, the widespread reliance on interpreters in clinical settings raises concerns about accessibility and patient autonomy. While interpreters play a crucial role in bridging communication gaps, they should complement rather than replace direct communication between healthcare professionals and Deaf patients (Storbeck & Martin, 2019). STAs were found to be

more likely than AUDs to require interpreters, possibly indicating that SASL training among STAs may be insufficient for independent communication. This finding is consistent with previous research, which highlights the frustrations of Deaf patients when healthcare professionals rely solely on interpreters without making an effort to communicate directly in SASL (Wilson & Moodley, 2021).

Preparedness

The low SASL fluency among STAs and AUDs is a significant concern, especially considering that SASL is an official language in South Africa. Despite a high percentage of professionals reporting that they have assisted Deaf individuals, their self-reported inability to communicate effectively in SASL raises questions about AUDs and STAs' ability to self-reflect. These findings suggest that there is limited direct communication with the Deaf community, as noted by Storbeck & Martin (2019).

The gap between the high frequency of engagement with Deaf individuals and the low competence in SASL highlights a potential disconnect between theoretical knowledge and practical application. While professionals may understand the importance of SASL in fostering effective communication, they may lack the language proficiency and confidence required to use it successfully in real-world clinical settings. This underscores the need for not just on theoretical exposure, but also on immersion and competence in SASL, ensuring that professionals are equipped to provide equitable care for Deaf patients.

Perceived preparedness

Interestingly, AUDs reported feeling more prepared than STAs, with a statistically significant difference in perceived preparedness ($p = 0.042$). However, this difference does not necessarily reflect greater SASL competence among AUDs. Instead, it suggests that perceived readiness may stem from differences in clinical exposure rather than actual linguistic ability. In other words, while AUDs may feel better equipped to engage with Deaf individuals due to their clinical experience, they may still lack the fluency needed for effective direct communication in SASL. This aligns with research by Lesch (2019), which indicated that while AUDs often feel

confident in handling hearing-related issues, their confidence in using SASL may not match their actual competence in the language.

The discrepancy between perceived preparedness and actual competence suggests that AUDs and STAs should take full accountability of their own qualifications and immerse themselves with the Deaf community. Especially, considering that perceived preparedness may be influenced by personal confidence, clinical experience, or exposure to Deaf patients.

Challenges in Communicating with the Deaf Community

By profession

The findings from the study reveal that a significant majority of STAs and AUDs experience communication challenges when interacting with Deaf individuals. When the data is broken down by profession, the results indicate notable differences in the challenges experienced by STAs and AUDs. Among STAs, a substantial 78.9% reported facing difficulties in communicating with the Deaf community. This aligns with earlier findings that suggest STAs generally report lower confidence and competence in SASL communication, coupled with heavy reliance on interpretation services and alternative methods such as writing or texting (Hyter & Salas-Provance, 2018).

In contrast, only 21.1% of AUDs reported encountering communication challenges with the Deaf community. This suggests that AUDs, who often have more formal training in communication disorders and may have had greater exposure to Deaf culture, are better equipped to navigate interactions with Deaf individuals. Their increased familiarity with alternative communication strategies, including SASL, likely contributes to their lower incidence of reported communication barriers (Padden & Humphries, 2005).

Despite these observed differences between STAs and AUDs, the chi-square analysis (p-value = 0.384) revealed that there was no statistically significant relationship between professional qualifications and the challenges faced in communication. This implies that the difficulties experienced by both groups are not solely influenced by their professional qualifications. Rather,

factors such as individual experience with Deaf individuals, personal exposure to Deaf culture, play a more significant role in determining the extent of communication challenges.

This suggests that while professional training is important, the personal experiences of the professional, such as their familiarity with Deaf culture and fluency in SASL, also significantly affect their ability to engage effectively with Deaf patients. These results highlight the importance of ongoing education, training and full immersion into the Deaf community, for both STAs and AUDs to reduce communication barriers when interacting with the Deaf people. Especially considering that research suggests that communication with Deaf individuals remains a significant challenge in healthcare settings, reinforcing the urgency for systemic improvements to bridge these gaps (Padden & Humphries, 2005; Hyter & Salas-Provance, 2018).

6.2 PHASE 2: QUALITATIVE DISCUSSION

Knowing About Deaf Culture

In the qualitative phase of this study, participants' knowledge and perceptions of Deaf culture emerged as a key theme. This theme was further explored through three subthemes: (1) understanding the distinction between “d” for deaf and “D” for Deaf, (2) the medical versus the cultural perspective on Deafness, and (3) the role of advocacy in Deaf community engagement. These subthemes provide insight into how STAs and AUDs perceive their role in the Deaf community and how their training and professional experiences influence their interactions with Deaf individuals and SASL users.

This discussion highlights the significant benefits of understanding Deaf culture and SASL for STAs and AUDs. Appreciation of the Deaf community’s history, values, and traditions fosters a deeper connection between professionals and Deaf individuals (Stobeck et al., 2010). Masuku et al. (2021) emphasize that knowledge of SASL is instrumental in breaking communication barriers, ultimately improving service delivery.

Furthermore, the understanding of Deaf culture enables STAs and AUDs to advocate for the rights of the Deaf community, including the recognition of Sign Language rights, bilingual education, and equal participation in society (Western Cape Government, 2022). This knowledge also encourages professionals to integrate SASL into their practice, particularly during counselling and feedback sessions with Deaf patients.

However, despite the legal recognition of these rights in South Africa's Bill of Rights, there remains a gap in implementation. Some practitioners continue to approach deafness primarily as a disability, rather than embracing a cultural-linguistic perspective (Human Rights Commission, 2018; Masuku et al., 2021). This ongoing tension suggests a need for further training and advocacy to ensure that Deaf individuals receive equitable and culturally appropriate services.

This discussion highlights the ongoing debate surrounding the distinction between "deaf" (lowercase) and "Deaf" (uppercase) and its implications for Deaf identity, culture, and medical interventions. Pudans-Smith et al. (2019) note that the terminology originated from Woodward (1975), a hearing researcher whose classification was developed without direct input from Deaf individuals. Over the years, this distinction has been frequently misunderstood and misused, as confirmed by the findings of this study, where nearly half of the participants either lacked awareness of the differentiation or had only minimal understanding of it.

Lane (2005) and other scholars argue that framing Deaf people as disabled has profound consequences. It can discourage Deaf children from fully embracing their linguistic and cultural heritage, lead to misguided solutions to challenges faced by the Deaf community, and push medical interventions—such as cochlear implants—that carry significant risks. Research by Daneshi et al. (2000), Reefhuis et al. (2003), Svirsky et al. (2004), and Gastman et al. (2002) highlights the increased health risks associated with cochlear implants, including a 30-fold higher incidence of meningitis, vestibular dysfunction, cerebrospinal fluid leaks, facial nerve damage, and potential injury to critical structures like the carotid artery.

Furthermore, Lane (2005) reports that the success rate of cochlear implants in Deaf children remains questionable, as nine out of ten paediatric candidates are born Deaf and rarely achieve full spoken language fluency post-implantation. These findings underscore the need for a paradigm shift—one that prioritizes Deaf identity and linguistic rights over a medicalized perspective that seeks to "fix" Deaf individuals rather than support their natural communication methods and cultural integration.

In the context of this study, the lack of knowledge about the "deaf" vs. "Deaf" distinction among STAs and AUDs suggests an urgent need for curriculum reforms that incorporate Deaf culture and SASL education more extensively. Without this understanding, practitioners risk perpetuating biases that prioritize medical interventions over cultural and linguistic inclusivity.
This finding underscores a gap in knowledge among STAs and AUDs regarding Deaf identity and culture. While Schow and Nerbonne (2013) and Sager (2019) clearly differentiate between "Deaf" (cultural and social identity) and "deaf" (audiological condition), the results from this study indicate that less than half of the participants (5 out of 12) were able to correctly distinguish between the two.

Understanding this distinction is critical for AUDs and STAs, as it shapes their approach to service delivery, patient interactions, and advocacy efforts. The medical model (lowercase "d") views deafness as a condition to be treated or corrected, often through hearing aids or cochlear implants, whereas the cultural model (uppercase "D") recognizes Deaf people as a linguistic and cultural minority with their own language (SASL) and community.

The lack of awareness among some participants suggests a need for increased education and training in Deaf culture and SASL within audiology and speech therapy curricula. Without this knowledge, practitioners may unintentionally reinforce biases that prioritize medical interventions over cultural inclusivity and linguistic rights. By fostering a deeper understanding of Deaf identity, STAs and AUDs can provide more holistic, culturally competent, and people-centred care.

Medical view vs the cultural view

This section underscores the ongoing debate between the medical and cultural views of deafness among STAs and AUDs. The medical perspective, as described by Cho Lieu (2004) and Ha'am (2017), treats deafness as a disability requiring intervention, often prioritizing hearing restoration through medical treatments such as cochlear implants and hearing aids. This ideology aligns with a long-standing "speech and hearing deficiency" paradigm (Kathard et al., 2011), which has historically shaped the training and professional practice of AUDs and STAs.

However, a notable shift is evident in the study's findings, with seven participants endorsing the cultural view, which aligns with scholars such as Butler et al (2001) and Dolnick (1993). This perspective rejects the notion of deafness as a condition that needs to be "fixed" and instead views Deaf people as members of a unique linguistic and cultural community. Padden and Humphries' (1988) definition of culture—centred on shared language, values, and traditions—reinforces this viewpoint.

Interestingly, four participants in the study acknowledged both perspectives, similar to the findings of Sager (2019), suggesting that professionals may be navigating a space where medical training and cultural awareness intersect. However, despite a growing acknowledgment of the cultural model, the study reveals a contradiction: that while many STAs and AUDs claim to support the cultural model, their clinical practices including biased informational counselling still reflects a medicalized approach.

Duchan (2004) calls for audiologists to move beyond the medical model and embrace alternative frameworks that respect the lived experiences of Deaf individuals. This ideological shift is crucial in ensuring that STAs and AUDs not only recognize Deaf culture intellectually but also integrate it into their clinical approaches. Training programmes must, therefore, provide more balanced education, incorporating both medical interventions and cultural competency, to equip professionals with the skills needed to support the Deaf community holistically.

The importance of advocacy

The role of advocacy in bridging the gap between STAs, AUDs, and the Deaf community is crucial. This study highlights that advocacy goes beyond communication—it encompasses ensuring equitable access to healthcare, education, and broader societal inclusion. Seven out of twelve participants emphasized that their role extends to promoting awareness and encouraging other healthcare professionals to engage with Deaf culture and SASL.

This aligns with Pillay et al. (2020), who argue that STAs and AUDs have a responsibility to advocate for the rights of Deaf individuals, ensuring they receive equal opportunities in education, healthcare, and employment. Similarly, Byrne et al. (2012) suggest that AUDs should not only be service providers but also advocates for both Deaf people and hearing loss prevention.

A significant point raised in the interviews is the necessity of SASL proficiency among healthcare professionals. Some participants argued that SASL should be part of medical training to improve service delivery for Deaf individuals. This extends the conversation beyond STAs and AUDs to include all healthcare providers who interact with Deaf patients. Given that Deaf individuals require access to a range of services beyond audiology, it is essential for the broader medical community to be equipped with the knowledge and skills necessary to ensure effective communication and culturally sensitive care. This study ultimately reinforces the idea that advocacy is not just about pushing for inclusion. Instead, it is about actively working toward systemic changes in healthcare, education, and policy to create a more accessible and equitable society for Deaf individuals.

The quantitative findings further reinforce the qualitative insights, showing that over half (54.2%) of STAs and AUDs reported being knowledgeable about Deaf culture. These results align with existing studies (Cottrell et al., 2021; Kritzinger et al., 2014; Sager, 2019), which suggest that many STAs and AUDs have limited direct exposure to the Deaf community and SASL.

However, despite these limitations, a majority (62.5%) of respondents in this study acknowledged the importance of understanding Deaf culture and SASL. This suggests a strong recognition among professionals of the need to bridge communication gaps and advocate for the

interests of the Deaf community. The willingness of STAs and AUDs to engage with Deaf culture and language highlights an opportunity for more structured training and practical exposure to improve service delivery.

These findings underscore the necessity of integrating SASL and Deaf cultural competency into professional training programmes. By doing so, STAs and AUDs can be better equipped to provide inclusive, culturally sensitive services, ultimately fostering a more supportive and equitable healthcare environment for the Deaf community.

Motivation to use/not use SASL

The qualitative study revealed three key subthemes related to STAs and AUDs' motivation to use or not use SASL: (i) influence of SASL exposure on professional practice, (ii) impact of training duration and training and (iii) the factors affecting language retention and usage. While literature does not directly establish a clear correlation between STAs and AUDs' lack of exposure to SASL usage and their motivation or confidence to use the language, there are relevant studies that explore related themes. For instance, Ngobeni et al. (2020) and Ngobeni (2017) have demonstrated how teachers' limited exposure to using sign language affects their motivation and ability to use SASL when engaging with Deaf pupils. Similarly, while there is no definitive research on the specific relationship between STAs, AUDs, and their motivation to use SASL, existing literature highlights a growing interest and desire among these professionals to learn the language, yet many still experience limited exposure to its use in their practice (Cottrell et al., 2021; Kritzinger et al., 2014).

Despite the increasing recognition of the importance of SASL, many STAs and AUDs continue to rely heavily on accredited Sign Language interpreters to facilitate communication with Deaf patients. This dependency presents a range of challenges. For example, Kritzinger et al (2014) highlight that the reliance on interpreters often results in miscommunications and mistranslations between the healthcare provider, interpreter, and patient. In many cases, untrained professionals may inadvertently speak to the interpreter rather than directly addressing the patient, which can undermine the quality of the interaction and the patient's healthcare experience. Overreliance on interpreters can also create situations where shortages of qualified interpreters

lead to a lack of access to necessary healthcare services, further exacerbating healthcare disparities (Kritzinger et al., 2014; Steinberg et al., 2006).

Moreover, the absence of SASL use in the workplace limits the opportunities for STAs and AUDs to expand their own communication skills (Bell, 2021). SASL offers a unique means for healthcare professionals to bridge the cultural and communication gap between themselves and Deaf patients, facilitating more effective and inclusive service delivery. By incorporating SASL into their practice, professionals not only enhance their ability to communicate but also foster a sense of inclusivity and respect for the Deaf community's cultural identity.

In the qualitative study, the relationship between exposure to SASL and motivation to use it was evident through an emerging subtheme: “using and disusing SASL.” Four participants noted that their lack of exposure to the Deaf community in their workplace environments was a significant factor contributing to their inability to use SASL. When Deaf patients are absent from a professional's practice setting, the motivation to use and improve SASL skills diminishes, leading to reduced confidence in the language. This observation suggests that regular interaction with Deaf individuals and consistent use of SASL in a professional context may be key factors in fostering both motivation and proficiency in the language.

Thus, to enhance the motivation and confidence of STAs and AUDs in using SASL, it is essential to create opportunities for consistent and meaningful exposure to Deaf patients within their work environments. This could include the integration of SASL practice into clinical training, as well as creating supportive workplace policies that promote the inclusion of Deaf individuals in healthcare settings. Additionally, providing ongoing professional development and mentorship can help address the challenges of overreliance on interpreters and ensure that health professionals are equipped with the skills needed to communicate effectively with Deaf patients, reducing the communication barriers that currently exist.

Impact of SASL exposure on Professional Practice

Participants noted that their exposure to SASL played a significant role in their motivation to use it. Those who had prior interaction with the Deaf community or received training in SASL were more inclined to use it in their professional settings. However, some participants expressed that their limited exposure to SASL during training or in clinical practice hindered their confidence and ability to communicate effectively.

Exposure to SASL in the context of speech therapy and audiology is not just beneficial but essential for effective communication and service delivery to individuals with hearing loss or speech and language disorders. In South Africa, many individuals within the Deaf community rely on SASL as their primary mode of communication, making it crucial for STAs and AUDs to be familiar with this language. Effective communication between healthcare providers and Deaf clients is key to meaningful and successful interventions. As Zulu et al (2017) and Pillay et al (2020) emphasize, this communication not only facilitates better clinical outcomes but fosters a relationship based on mutual understanding, which is vital for providing appropriate care and services. For STAs and AUDs to serve South Africa's diverse population effectively, they must not only be trained in SASL but also exposed to opportunities where they can regularly use the language in their daily practice. This is particularly significant for African language-speaking trainees who have been historically excluded from clinical programmes that would better equip them to work within these specific cultural and linguistic contexts (Khoza-Shangase & Mophosho, 2018). The lack of inclusion in such training programmes has led to a gap in services provided to the Deaf community, underscoring the importance of ensuring that training curricula reflect South Africa's multilingual reality.

Kathard et al (2011) stress that STAs and AUDs have an important role in advancing educational outcomes, particularly for the Deaf community, by developing language that is inclusive of both spoken and signed languages. With SASL being officially recognized as one of South Africa's 11 official languages (South African Parliament, 2023), it is more critical than ever that professionals working with Deaf individuals are proficient in SASL to provide effective interventions. However, disparities between institutions in terms of the language training

requirements further complicate this issue. For instance, Wits University requires trainees to know at least one African language alongside SASL, while Stellenbosch University requires knowledge of at least two African languages along with SASL (Bowen, 2016; Ramkissoon & Khan, 2003). These differing approaches to training create inconsistencies in the level of exposure to SASL that professionals receive, which in turn influences their motivation and ability to integrate the language into their practice.

Limited exposure to SASL during professional training can act as a significant barrier not only to learning the language but also to its effective application in clinical practice. This problem extends beyond the health profession to the educational sector, where a lack of in-service training in SASL for teachers has been identified as a major barrier to successful teaching and learning among Deaf students in South Africa (Ngobeni et al., 2020; Ngobeni, 2017). The lack of training, both in healthcare and educational settings, can undermine efforts to provide equitable services to the Deaf community and restrict the broader social integration of Deaf individuals. Therefore, improving the exposure to SASL and integrating its use into professional curricula is critical not just for the personal development of STAs and AUDs but also for enhancing the quality of care and ensuring Deaf individuals have the access and support they need in both healthcare and educational systems.

In conclusion, exposure to SASL should be considered a foundational element of training for all professionals working with the Deaf community. To bridge the gap in service delivery and ensure Deaf individuals receive the respect, support, and care they deserve, SASL should be woven into the very fabric of clinical training, policy, and practice. Creating opportunities for regular use of SASL in professional settings, expanding the scope of SASL training, and encouraging motivation to use the language consistently will help reduce the barriers to effective communication and improve the overall experience of Deaf individuals in South Africa.

Factors affecting language retention and usage

The use or disuse of SASL in the context of speech therapy and audiology is a significant factor in determining how effectively professionals serve the Deaf community. The decision to use or

not use SASL in practice is influenced by several factors, including the legal and ethical standards established by the SASLHA, the necessary qualifications and continuous education required for practitioners, and the availability of opportunities to apply SASL in real-world settings.

In this study, it was found that some practitioners' use of SASL was discouraged due to a lack of interaction with the Deaf community. Out of twelve participants interviewed, four mentioned that the absence of Deaf patients in their workplaces led to the disuse of SASL, as they did not have opportunities to apply the language in their day-to-day practice. This finding aligns with a study by Abbasian and Khajavi (2011), which examined the impact of not using a second language (English) over time. The study found that teachers in Iran who had not used English in their professional settings experienced significant language attrition. After two years of non-use, participants had forgotten 50% of their vocabulary, and after eight years, 90% of their language knowledge had faded. This phenomenon of language attrition highlights the importance of regular use of SASL for its retention and effective use in practice.

In addition to the absence of Deaf individuals in their professional environments, other participants in this study indicated that the frequency of exposure to Deaf patients plays a crucial role in the use or disuse of SASL. When AUDs and STAs have limited opportunities to interact with Deaf clients, they may lose proficiency in the language. According to Pillay et al. (2020), the distribution of STAs and AUDs working in public versus private sectors shows that 88.5% of professionals are restricted in their ability to practice independently in both sectors. This restriction can lead to a lack of exposure to the Deaf community, reducing the frequency with which these professionals use SASL. Moreover, as the number of individuals with hearing loss is projected to increase significantly by 2050 (WHO, 2024), this issue may become even more pressing. A failure to see Deaf patients regularly could mean that many Deaf individuals may not be receiving the healthcare services they need, exacerbating the health inequalities they already face.

In conclusion, the disuse of SASL by AUDs and STAs is not simply a matter of personal choice but is heavily influenced by the structure of their work environments and the availability of Deaf individuals to treat. Regular exposure to the Deaf community and ongoing opportunities to

practice SASL are crucial for maintaining language proficiency and ensuring that Deaf individuals receive the quality of care they deserve.

Impact of training duration and timing

To acquire proficiency in SASL, STAs and AUDs receive SASL instruction alongside clinical training with Deaf individuals or SASL users at various stages throughout their academic program. This clinical training spans across multiple years, typically beginning in the first year and continuing through to the fourth year of study (Pillay et al., 2020). The training incorporates a balanced blend of theoretical knowledge, practical skills, and cultural competence, ensuring that graduates are equipped to deliver effective services to diverse populations, particularly the Deaf and hard-of-hearing community. The comprehensive nature of this training is essential in preparing these professionals for the unique challenges they may encounter when working with individuals who communicate through SASL.

However, findings from this qualitative study indicate that younger STAs and AUDs often face significant hurdles in completing clinical training with the Deaf community. Four participants noted that the limited duration of SASL training during their undergraduate education negatively impacted their proficiency with the language and, subsequently, their ability to serve Deaf community members effectively. This was particularly true for students enrolled in speech therapy and audiology programmes, where completing clinical training with the Deaf community in just one year is a daunting task. This challenge stems from the complexity and breadth of skills necessary to work effectively with Deaf individuals, including linguistic competency in Sign Language, cultural sensitivity, and understanding the unique communication needs of this community (Bowen, 2016; Rutherford, 2017).

In addition to mastering the intricacies of Sign Language as a visual language, the training demands a deep understanding of the various aspects of communication development, language acquisition, speech development, social communication skills, and the assessment of speech acoustics. Each of these components requires specialized expertise, making it a complex and time-consuming process. Rutherford (2017) further emphasizes the difficulty by noting that the need

for extensive clinical exposure, regular observation, intervention, and case discussions only adds to the strain of an already rigorous academic workload. This complexity extends the duration required for students to develop the full range of competencies needed to provide effective services to Deaf individuals.

Moreover, Mophosho (2018) highlights the ethical commitments that healthcare professionals must uphold, as evidenced by the Hippocratic Oath they take at the beginning and end of their training. This oath pledges healthcare professionals to treat patients to the best of their abilities while maintaining ethical standards such as social justice and confidentiality. However, evidence suggests that many STAs, SLTs, and AUDs graduate from higher education institutions lacking the essential cultural competence and critical diversity literacy necessary for working effectively with diverse communities, including the Deaf population (Mophosho, 2018). This gap in cultural competence further exacerbates the challenges in providing equitable healthcare services to Deaf individuals.

The extended duration of clinical training underscores the delays in the professionalization of hearing healthcare personnel and highlights the pressing shortages in the field. These shortages have profound implications for hearing health service delivery across the country. A key reason for the early initiation of clinical training is to enable students to register with the HPCSA as professionals as quickly as possible. However, the reality is that there is a significant shortage of STA and AUD professionals in South Africa, with most available practitioners working in private practices or concentrated in urban centres (Khoza-Shangase et al., 2021; Pillay et al., 2020). The unequal distribution of professionals has led to inequitable access to hearing healthcare services across the country, particularly in provinces with higher rates of hearing disabilities. As Pillay et al. (2020) explain, the imbalance between the number of STAs, AUDs, and SLTs and the demand for services has created a disparity in service delivery, further limiting access to vital healthcare for those with hearing loss.

The study's participants also expressed concerns regarding the insufficient timeframe allocated for SASL training in their undergraduate programmes. Several participants shared that

their training only focused on basic greetings and introductions, which were inadequate for facilitating meaningful interactions with Deaf patients. As a result, they felt unprepared to incorporate SASL into their clinical practice effectively. This concern aligns with findings from previous studies, which stress the need for more extensive and comprehensive SASL training for healthcare professionals. To address this gap, academic programmes must prioritize expanding SASL curriculum content and ensure that students are adequately prepared to serve Deaf patients with cultural competence, linguistic proficiency, and the necessary skills to engage in meaningful communication.

In conclusion, there is a clear need to revise the structure and duration of SASL training within speech-language pathology and audiology programmes to better prepare future professionals for the challenges they will face in serving the Deaf community. Increased emphasis on cultural competence and extended clinical training in SASL will better equip these professionals to meet the communication needs of Deaf individuals, reduce barriers to healthcare access, and help mitigate the ongoing shortage of trained personnel across South Africa's healthcare system.

Confidence in providing healthcare services to the Deaf Community

The ability of STAs and AUDs to confidently provide services to Deaf clients is shaped by multiple factors, as identified in this qualitative study. Four key subthemes emerged in relation to confidence: (i) the effectiveness of theoretical training in building practical confidence, (ii) alternative communicative strategies in the absence of SASL proficiency, (iii) the reliance on interpreters in clinical settings and (iv) the impact of the COVID-19 on training and practice.

The effectiveness of theoretical training in building practical confidence

One of the primary challenges affecting STAs and AUDs' confidence in service delivery is the gap between theoretical training and hands-on clinical experience. While undergraduate programmes provide foundational knowledge on Deaf culture, communication techniques, and the basics of SASL, limited opportunities for immersive clinical engagement hinder skill acquisition and fluency. Several participants in this study reported feeling unprepared to incorporate SASL

effectively into their practice due to insufficient exposure during training. This finding aligns with previous research which suggests that language proficiency and cultural competence require extended practice, real-world application, and repeated exposure to Deaf individuals (Bowen, 2016; Rutherford, 2017). Theoretical training alone is not sufficient to build confidence; structured clinical rotations with Deaf clients should be emphasized throughout the academic curriculum to ensure that STAs and AUDs gain both competence and confidence in using SASL effectively.

A key factor contributing to STAs and AUDs' limited engagement with the Deaf community is their lack of preparedness, stemming from the content covered in their theoretical training. Findings from this study indicate that many professionals feel inadequately equipped to communicate effectively with Deaf clients due to the limited scope of their SASL education during undergraduate training. Participants from Wits University, who made up seven out of twelve interviewees, specifically highlighted the inadequacy of their Sign Language training. For example, a 27-year-old female STA with two years of experience in a public-private healthcare setting noted that while she could introduce herself in SASL, she lacked the ability to ask follow-up questions during patient interactions. Similarly, another 27-year-old female STA, with three years of experience in a public-educational setting, expressed frustration that her training only covered basic vocabulary, such as greetings, family members, weather, months, and places, without providing the necessary language skills to hold meaningful conversations with Deaf patients.

These findings align with existing literature. Singh et al. (2015) reported that recent graduates in speech-language pathology and audiology perceived themselves as the least prepared when it came to providing services requiring sign language (23.6%) and African languages (20.5%). This suggests a broader issue within training programmes, where linguistic and cultural competencies are not prioritized in ways that align with the practical demands of the profession. The disconnect between theoretical coursework and practical communication skills needed in real-world clinical settings was a recurring theme in this study. While theoretical instruction may introduce foundational SASL concepts, it does not provide students with immersive, hands-on experiences that would help them gain confidence in applying the language in clinical interactions.

Several participants expressed that their exposure to Deaf patients during clinical training was often limited, further reinforcing the challenge of translating theoretical knowledge into practice. Without structured opportunities to practice SASL in authentic healthcare settings, many STAs and AUDs enter the workforce feeling unprepared to interact with Deaf patients effectively.

The results of this study point to an urgent need for curriculum reform within undergraduate Audiology and Speech-Language Pathology (SLP) programmes in South Africa. To ensure that theoretical SASL training better aligns with the practical realities of working with Deaf clients. Several key changes could address the current gaps. Extending SASL coursework by increasing the number of semesters dedicated to Sign Language instruction would allow students to build greater fluency and comprehension. Shifting the focus from isolated vocabulary lists to functional, conversational skills would better prepare students for real-world interactions. Additionally, partnering with Deaf organizations to facilitate structured interactions with Deaf individuals could provide invaluable practice and cultural competence. Enhancing clinical training opportunities by ensuring that students have dedicated clinical hours focused on working with Deaf patients would help bridge the gap between theoretical knowledge and practical application.

The current limitations in SASL training not only affect STAs and AUDs' confidence but also contribute to disparities in healthcare access for Deaf individuals. If healthcare professionals are unable to communicate directly with their Deaf patients, it creates a reliance on interpreters, which, as previous research has shown, can lead to issues such as mistranslations and a lack of personal engagement between the practitioner and the patient (Kritzinger et al., 2014; Steinberg et al., 2006). Furthermore, given the existing shortage of STAs and AUDs in South Africa, particularly in rural areas (Khoza-Shangase et al., 2021; Pillay et al., 2020), the lack of SASL competency exacerbates the problem of inaccessible healthcare for Deaf communities. Addressing this gap in training is therefore not only a matter of professional development but also a critical step toward improving equitable healthcare service delivery.

Findings from this study, supported by existing literature, underscore the urgent need for more comprehensive SASL training in undergraduate programmes for STAs and AUDs. The

current curriculum, which provides only basic vocabulary without practical application, leaves many professionals feeling unprepared to engage meaningfully with Deaf patients. To improve both confidence and healthcare accessibility, training programmes should be restructured to include extended SASL instruction, conversational skill development, and hands-on experiences with the Deaf community. By implementing these changes, future professionals will be better equipped to provide culturally competent and linguistically accessible services to Deaf individuals.

Use of Alternative Communication Strategies in the absence of SASL proficiency

Given the gaps in SASL proficiency among STAs and AUDs, many practitioners rely on alternative communication strategies when interacting with Deaf clients. These methods include written communication, lip-reading, gestures, technology and fingerspelling. While such strategies can serve as temporary solutions, they do not offer the same depth and engagement as direct SASL communication.

Participants in this study expressed uncertainty about the effectiveness of these alternative strategies, which contributed to their lack of confidence in working with Deaf patients. This concern is echoed in existing literature, which highlights that non-verbal strategies can sometimes result in misunderstandings, leading to frustration for both practitioners and patients (Bell, 2021). To mitigate these challenges, continuous SASL training, both at the undergraduate level and through professional development programmes, is essential. Strengthening SASL proficiency would reduce reliance on alternative communication strategies and encourage more direct engagement with Deaf clients.

Despite the limitations of alternative communication methods, many participants in this study reported that these strategies played a crucial role in mitigating communication breakdowns with the Deaf community. Incorporating diverse techniques can enhance the quality of care provided to Deaf individuals by accommodating their varied needs and preferences (Taillefer, 2019). However, the effectiveness of these strategies depends largely on the written English literacy levels and communication abilities of individual Deaf patients.

One significant barrier to effective communication in hearing healthcare systems is the lack of resources, which has been identified as a contributing factor to inefficiencies and restricted access to services (Bhamjee et al., 2022). Among the alternative strategies used by participants, writing and fingerspelling emerged as the most common. However, a majority (9 out of 12) acknowledged that not all Deaf individuals or SASL users possess strong literacy skills, making communication through writing difficult. This finding aligns with Harmer (1999), who reported that the average Deaf person may have lower English literacy levels, reduced healthcare knowledge, and fewer health education opportunities compared to their hearing counterparts. These limitations significantly impact patients' ability to advocate for themselves, seek medical attention proactively, and understand medical instructions.

Additionally, Harmer (1999) noted that individuals who were prelingually Deaf often demonstrated significantly poorer English proficiency than those who became Deaf later in life. Limited English literacy presents further challenges, as individuals may struggle to access healthcare information from books, brochures, newspapers, and other educational materials. Furthermore, difficulties in reading and comprehending medical prescriptions and healthcare notes can compromise treatment effectiveness and adherence to medical recommendations.

Nevertheless, some participants reported successful communication with Deaf patients who possessed sufficient literacy skills. In such cases, writing, texting, and other alternative methods allowed practitioners to bridge the language gap and improve healthcare interactions. These findings align with Witte and Kuzel (2000), who found that Deaf participants in their study frequently encountered practical barriers to effective healthcare due to healthcare providers' lack of preparedness in addressing their communication needs. Many Deaf patients expressed frustration over practitioners' inability to provide adequate communication support, leading to suboptimal healthcare experiences (Witte & Kuzel, 2000).

To address these challenges, Witte and Kuzel (2000) recommended a multifaceted approach that includes the use of telephone-assisted communication, qualified interpreters, and basic knowledge of lip-reading or Sign Language among healthcare providers. These strategies

have the potential to enhance the physician-patient relationship and ensure more inclusive, people-centred care for Deaf individuals. Expanding the use of alternative communication strategies, alongside improved SASL training, would contribute to reducing healthcare disparities and improving service accessibility for the Deaf community.

Reliance on Interpreters in clinical settings

To mitigate against miscommunication and misinterpretation, STAs and AUDs often rely on independent Sign Language interpreters to facilitate communication with Deaf clients (Kritzinger et al., 2014; Steinberg et al., 2006). However, findings from this study reveal mixed feelings about the use of interpreters. While interpreters play a crucial role in bridging language gaps, participants expressed both positive and negative experiences regarding their use.

Eight out of the twelve participants reported having required the assistance of an interpreter at some point. Among them, six conveyed negative feelings toward the experience. A 27-year-old female STA from Wits University, with two years of experience in a public-private healthcare setting, described how she frequently had to rely on colleagues for interpretation, disrupting their workflow and creating discomfort for both parties. She also highlighted how her lack of confidence in SASL affected her interactions, often causing her to make assumptions about what Deaf patients were trying to communicate. Similarly, a 25-year-old female STA from Wits University, with three years of experience in a public-educational setting, expressed concern that interpreter use hindered open communication with patients, as it fostered excessive reliance on a third party rather than promoting direct engagement. However, this concern does not diminish the reality that, in the absence of qualified interpreters, communication between Deaf clients and STAs or AUDs was found to be significantly impaired. This communication gap often led to feelings of frustration, isolation, and a reluctance among Deaf clients to return for ongoing care—ultimately compromising the continuity and quality of healthcare services provided.

Two other participants, a 25-year-old STA and a 24-year-old AUD, both from Wits University, found it embarrassing to depend on others to interpret their conversations with patients. This reliance on interpreters contributed to a sense of detachment from their patients, reinforcing

existing communication barriers between healthcare practitioners and the Deaf community. Furthermore, these challenges reflect broader issues related to stigma surrounding hearing loss and deafness, which can discourage patients from seeking medical assistance (Masuku et al., 2021; Bhamjee et al., 2022). Research has linked communication barriers to compromised healthcare quality and breaches of patient confidentiality, as interpreters inadvertently mediate sensitive medical discussions (Masuku et al., 2021). Several studies support these concerns, showing that an overreliance on Sign Language interpreters can contribute to the disengagement of Deaf patients from hearing healthcare services (Langdon & Saenz, 2016; Mheta et al., 2023; Gcwabe, 2023).

On the other hand, while some participants viewed interpreters as a hindrance to direct communication, other research suggests that a lack of interpreters can severely restrict Deaf individuals' access to healthcare (Khoza-Shangase & Masondo, 2021; Zulu et al., 2017; Gcwabe, 2023). In regions where professional interpreters are scarce—particularly in rural and underserved areas—STAs and AUDs struggle to provide effective services to Deaf patients, highlighting a critical gap in accessible healthcare (Kritzinger et al., 2014; Steinberg et al., 2006). When interpreters are unavailable, Deaf patients may delay or entirely avoid seeking medical attention, exacerbating health disparities.

Another significant concern raised by participants was the tendency to communicate with the interpreter rather than directly addressing the Deaf patient. This dynamic reduced engagement and comfort levels for both the healthcare provider and the patient, reinforcing a sense of disconnection. These findings underscore the importance of fostering direct communication skills between practitioners and their Deaf clients. Developing SASL proficiency among STAs and AUDs would reduce dependency on interpreters, allowing for more direct and meaningful interactions in healthcare settings.

Ultimately, while interpreters serve as an essential resource, their use should complement—not replace—practitioners' own communication efforts. Addressing the shortage of trained interpreters, alongside strengthening SASL training for healthcare providers, would

promote a more inclusive and people-centred approach to communication in audiology and speech therapy services.

The Impact of COVID-19 on training and practice

Impact of COVID-19 on confidence to deliver hearing healthcare services

One of the key factors influencing the confidence of AUDs and STAs in providing hearing healthcare services was the impact of the COVID-19 pandemic. The pandemic significantly disrupted hearing healthcare globally, including in South Africa, affecting service delivery and professional training. Multiple studies have documented the challenges AUDs faced, particularly those in private practice, as they had to navigate reduced patient loads, service limitations, and the rapid adoption of tele-audiology and telehealth (Ehlert, 2023; Khoza-Shangase et al., 2021; Khoza-Shangase et al., 2022; Aggarwal et al., 2021).

Due to lockdown restrictions and the reduction of in-person consultations, practitioners were forced to adapt by offering limited remote services. Khoza-Shangase et al. (2022) and Khoza-Shangase et al (2021) explored the feasibility of integrating tele-audiology into daily clinical practice, raising concerns about whether practitioners were adequately prepared for these changes and the broader implications for both their professional roles and patient outcomes. A survey by Ehlert (2023) revealed that 60% of AUDs had appropriate knowledge regarding COVID-19, and many successfully adapted to new service delivery models within a short period. For instance, despite initial challenges, practitioners managed to conduct hearing aid reprogramming, troubleshooting, cochlear implant pre-counselling, and adult hearing screenings through tele-audiology (Ehlert, 2023).

While tele-audiology allowed some continuity in service provision, findings from this study indicate that the pandemic also created significant obstacles for AUDs and STAs, particularly in terms of clinical training and direct engagement with the Deaf community. Three participants from different institutions reported that their Sign Language training was halted because it was conducted in person, leading to incomplete training and later difficulties in using the language confidently in practice. This gap in training diminished their motivation to engage with Deaf patients' post-pandemic. Similar findings have been reported in broader research, which

highlights that lack of resources and institutional support remains a significant challenge for hearing healthcare professionals (Bhamjee et al., 2022).

Other participants reported that during the pandemic, they completed only the theoretical components of their training online but were unable to fulfil the practical aspects of their fourth-year clinical requirements due to restrictions on visiting Deaf schools and interacting with Deaf individuals. This lack of real-world exposure further hindered their development of SASL proficiency, confidence, and overall preparedness to work with Deaf patients.

Beyond training disruptions, the COVID-19 pandemic led to lasting changes in service delivery, particularly with the widespread adoption of telehealth. In speech-language pathology and audiology, telehealth transformed professional interactions with patients, offering both opportunities and challenges. While telehealth improved access to care, particularly for individuals in remote areas, it also introduced new barriers to effective communication with deaf clients. Some participants in this study expressed difficulty in adapting their communication techniques to virtual consultations, which negatively impacted their confidence in delivering high-quality care to Deaf patients.

These findings align with broader research on telehealth implementation (Bell, 2021), which emphasizes that practitioners require additional training to optimize their use of digital platforms when working with Deaf individuals. Effective telehealth communication with Deaf patients involves more than simply using video conferencing. It requires specific adaptations such as ensuring proper visual framing, optimizing lighting for clear signing, utilizing real-time captioning, and integrating other accessibility features. To build confidence in telehealth service delivery, training programmes should incorporate best practices for using digital tools in Deaf healthcare, ensuring that practitioners are equipped with the necessary skills to provide effective, inclusive, and people-centred care in both virtual and in-person settings.

Hearing Aids vs. SASL: a perceived tension

According to the WHO, approximately 5% of the global population experiences moderate to profound hearing loss (Marti & Recupero, 2019). As a result, both deaf and Deaf individuals may

benefit from hearing technologies such as cochlear implants and hearing aids. However, it is important to recognize that many Deaf individuals who strongly identify with the Deaf community may choose to use hearing aids primarily for environmental awareness and alerting purposes rather than for speech perception (Herbig, 2018). This distinction underscores the complex relationship between hearing technology and Deaf identity.

Given that some Deaf individuals who use hearing aids still prefer to communicate in Sign Language, audiologists frequently provide services to Deaf clients who sign fluently. Ideally, this should not present a communication challenge; however, if STAs and AUDs lack proficiency in SASL, it may contribute to tension between the two parties (Orenshein, 2023). Orenshein (2023) notes that communication barriers between audiologists and Deaf patients have been a longstanding issue, with significant consequences for healthcare quality and patient well-being.

Iezzoni et al (2004) highlight that communication difficulties can lead to serious ramifications, including medication errors, misdiagnoses, missed or delayed appointments, and incomplete medical information for the patient. Additionally, from an emotional standpoint, Deaf patients who experience communication barriers often report feelings of misunderstanding, anxiety, and a loss of autonomy when navigating healthcare systems (Pereira & Fortes, 2010; Scheier, 2009). The inability of STAs and AUDs to effectively communicate in SASL can therefore lead to frustration and mistrust within the Deaf community, reinforcing historical tensions between the two groups.

According to Shezi and Joseph (2021), while SLTs and STAs have training in communication disorders, AUDs primarily focus on the diagnosis and treatment of hearing loss. Duldulao and Ramsey (2013) further reported that AUDs tend to prioritize audiological services, such as fitting hearing aids, over addressing broader communication and inclusion needs of the Deaf community. Although some audiologists may have basic SASL knowledge, their main responsibility remains centred on overcoming hearing impairments rather than advocating for the cultural and linguistic needs of Deaf individuals.

Findings from this study indicate that all participants were aware of the underlying tension between STAs/AUDs and the Deaf community. This perceived divide stems from differing perspectives on hearing loss—while many Deaf individuals view it as a cultural and linguistic identity rather than a medical condition, audiologists are trained to treat it as a disability that can be managed with technology. The lack of SASL proficiency among hearing healthcare professionals further exacerbates this divide, as it limits direct communication and often results in Deaf patients feeling sidelined in their own healthcare experiences.

To bridge this gap, it is crucial for STAs and AUDs to adopt a more Deaf people-centred approach that acknowledges and respects Deaf culture while also providing necessary audiological services. Integrating SASL training into audiology education, promoting cultural competence, and encouraging Deaf-led advocacy within the field could help reduce this longstanding tension and improve the overall relationship between audiologists and the Deaf community.

Perceived Tension and Challenges with the Deaf Community

The Deaf population often faces significant challenges in accessing adequate healthcare services. These challenges include negative attitudes from healthcare providers, low health literacy, and an increased likelihood of experiencing unfavourable health outcomes (McKee et al., 2022). Within the context of hearing healthcare, these issues are particularly pronounced in interactions between Deaf individuals and AUDs or STAs. The survey conducted in this study aimed to explore whether STAs and AUDs encounter specific difficulties when communicating with the Deaf community. The results were supplemented by a qualitative study that delved into the ongoing tensions between audiologists and Deaf patients, revealing two primary subthemes: the provision of hearing aids vs. the use of SASL and biased informational counselling.

The findings from this study were consistent with previous research that highlights low confidence and competence among STAs and AUDs, as well as a high reliance on interpretation services. Many practitioners reported being aware of the tension between their professional practices and the attitudes of the Deaf community. This tension is rooted in a perception among Deaf patients that their audiologists and speech therapists do not fully understand or respect their

communication needs. Research by Bhamjee et al (2022) and Masuku et al (2021) also identified similar concerns, with Deaf patients expressing dissatisfaction regarding both the attitudes of their healthcare providers and the quality of care they received.

In particular, respondents in this study reported that Deaf patients sometimes dismissed hearing tests and the recommendation for hearing aids, perceiving these interventions as unnecessary or a "waste of time." This finding is consistent with Cottrell et al (2021), who noted that the Deaf community and audiologists have historically held different views on the intervention for hearing loss. While audiologists and other healthcare providers often emphasize the importance of hearing technologies, many Deaf individuals view their hearing loss (being deaf) as a cultural and linguistic characteristic rather than a medical condition that requires correction.

This divergence in perspective can lead to significant communication barriers and feelings of frustration on both sides, thus creating tension. Deaf patients may feel that their unique needs and identity are being disregarded, while AUDs and STAs may feel inadequate or misunderstood in their attempts to provide care. Additionally, the focus on providing hearing aids rather than accommodating communication preferences through SASL can exacerbate tensions, as Deaf patients may feel that their cultural identity is being overlooked in favour of a medicalized approach to their hearing loss.

Addressing these challenges requires greater cultural competence among hearing healthcare professionals, as well as a deeper understanding of the Deaf community's preferences and values. By embracing a more inclusive, Deaf people-centred approach that recognizes the importance of SASL and respect's Deaf identity, audiologists and STAs can improve their relationships with Deaf patients and provide more effective, tailored care. Additionally, fostering open dialogue and mutual understanding between the Deaf community and healthcare providers will be key in bridging the gap between hearing healthcare practices and Deaf people's cultural perspectives.

Potential bias in informational counselling for Deaf patients

Another significant source of tension between STAs, AUDs, and Deaf individuals stems from communication barriers, particularly related to the practitioners' limited proficiency in SASL and

their lack of familiarity with the Deaf community's cultural and linguistic context (Panning et al., 2021). The qualitative study revealed an emerging issue of biased informational counselling, which refers to the practice of providing information about hearing loss and audiological services in a way that is skewed by the healthcare provider's preferences or limited understanding, leading to incomplete or unequal information being conveyed to patients and families (Whicker et al., 2018).

Globally, there has been widespread recognition that AUDs and STAs sometimes engage in unethical behaviour by providing biased or inadequate information to clients, particularly parents of children with hearing loss. As noted by Meibos (2023), this can result in a gap in the information parents receive, which significantly impacts their ability to make well-informed decisions regarding intervention options for their children. Parents frequently report a lack of access to essential information and the influence of professionals' personal biases on their decision-making processes (Whicker et al., 2018; Meibos, 2023). This is particularly problematic in a country like South Africa, where there is significant diversity in language, culture, and socioeconomic status. Clear, concise, and culturally appropriate informational counselling is essential to ensuring that families receive relevant and understandable information about hearing loss and intervention options (Whicker et al., 2018).

In this study, seven out of 12 participants—primarily female STAs from Wits University—acknowledged that they often provided unequal or biased information to parents of Deaf children or SASL users. Many participants admitted that they favoured medical or audiological solutions, such as hearing aids, and admitted to having limited knowledge of SASL and Deaf culture. This bias was reflected in their counselling practices, where the focus was primarily on audiological interventions rather than exploring or respecting the cultural and linguistic preferences of the Deaf community. These findings correlate with previous studies, such as Shezi and Lavinithum (2021), which also found that informational counselling provided by AUDs and STAs towards Deaf patients/clients was often limited and biased due to their preference of medical model over cultural view of Deafness.

In the context of Deaf children, who are often born to hearing parents (with over 90% of Deaf children born into hearing families), STAs and AUDs must provide comprehensive and balanced information. Harmer (1999) emphasizes that the attitudes and information conveyed by practitioners play a crucial role in shaping the perspective of the family, and these early interactions have lifelong consequences for both the Deaf child and their family. Furthermore, the practice of providing biased or intentionally or unintentionally incomplete information about Deaf culture and communication options can have significant long-term effects. As Weinstein and Taylor (2023) argue, audiologists must reframe their approach to patient care and understand that providing hearing aids or other medical interventions is not the sole solution to hearing loss, especially for individuals who identify as Deaf.

Additionally, the psychosocial impacts of hearing loss are profound. According to Bennet et al. (2020), untreated hearing loss can lead to a range of negative psychosocial outcomes, such as feelings of isolation, loneliness, and embarrassment, which can further hinder a Deaf patient's engagement with audiology services. These negative effects can also extend to a person's overall well-being, including poor sleep and physical function (Cacioppo et al., 2002). For older adults, untreated hearing loss may exacerbate chronic medical conditions, and it is vital that STAs and AUDs recognize the broader psychosocial impacts of hearing loss as part of their role in the interdisciplinary team (Laird et al., 2020). However, it is equally important to acknowledge that being Deaf is not inherently negative. From a cultural-linguistic perspective, Deafness is not viewed as a deficit, but as a unique identity grounded in a rich language (South African Sign Language) and shared community experience. Many Deaf individuals lead fulfilling lives, with strong social networks, cultural pride, and a robust sense of belonging within the Deaf community (Lane, 2005; Bauman, 2008). Research shows that Deaf people who are immersed in Deaf culture and use Sign Language as their primary mode of communication often report strong self-esteem, resilience, and life satisfaction, particularly when supported by inclusive environments (Padden & Humphries, 2005).

Therefore, while STAs and AUDs must be attentive to the medical and psychosocial implications of hearing loss, they must also avoid pathologising Deafness. Recognising and valuing Deaf identity, language, and culture is essential in delivering holistic and respectful care.

Laird et al (2020) also stress the importance of considering the use of medical jargon when providing informational counselling, suggesting that healthcare providers must ensure that they are offering information in a way that is accessible and comprehensible for all patients, particularly those from diverse backgrounds. This requires an understanding not only of hearing loss but also of the cultural and social factors that shape how patients interact with the healthcare system.

In conclusion, to improve the quality of informational counselling and reduce biased practices, STAs and AUDs must undergo training that goes beyond technical audiology and medical knowledge. They need to develop cultural competence, deepen their understanding of Deaf culture and language, and engage in more inclusive practices that respect the autonomy and preferences of Deaf patients and their families. By adopting these approaches, they can provide more equitable, people-centred care that empowers Deaf individuals and their families to make unbiased, informed decisions.

CHAPTER 7: CONCLUSION & RECOMMENDATIONS

This chapter summarizes the key findings of the study, emphasizing their relevance to the integration of SASL in speech therapy and audiology practice. It also examines the study's strengths and limitations, providing a critical assessment of its scope and impact. Finally, the chapter concludes with a discussion of the findings' implications and offers recommendations for future research to enhance SASL training and clinical application.

1. Cultural and Linguistic Competence

The study highlights the necessity for AUDs and STAs to be fluent in SASL and sensitive to Deaf culture. While interpreters play a valuable role, overreliance on them signals a gap in direct communication skills, affecting patient autonomy and trust. Prior research supports the need for linguistic and cultural competence in improving healthcare outcomes for Deaf individuals (Humphries et al., 2012). The findings of this study indicate that AUDs and STAs lack cultural and linguistic competence, which negatively affects their interactions with the Deaf community. Despite receiving both theoretical and practical training in SASL and Deaf culture, many professionals continue to prioritize medical intervention over cultural and linguistic inclusion.

The current findings suggest that the way AUDs and STAs perceive Deaf individuals somehow perpetuates biases, reinforcing a medical view of deafness rather than embracing a cultural-linguistic perspective. This bias contribute to decreased healthcare access for Deaf patients, as professionals struggle to communicate effectively. This study underscores the need for STAs and AUDs to embrace cultural competence, which emphasizes an ongoing process of learning and adaptation. Additionally, hearing professionals have the opportunity to learn and integrate SASL but often choose not to. Thus, it is imperative for STAs and AUDs to actively engage in continuous learning and professional reflection to dismantle these biases and foster genuine cultural competence.

Regardless of when their training—whether theoretical or practical—occurred, STAs and AUDs have the opportunity to immerse themselves into the Deaf community by learning SASL. However, many STAs and AUDs choose not to learn SASL, reinforcing communication barriers

and perpetuating a medicalized view of deafness rather than embracing a culturally inclusive approach.

2. Barriers to Communication and Healthcare Access

As noted by Zulu et al (2017), the exclusive use of spoken language with Deaf patients significantly limits effective engagement and consultation. Given South Africa's linguistic diversity, barriers in healthcare settings can lead to disparities in service provision. The study reaffirms that AUDs and STAs frequently struggle to engage meaningfully with Deaf patients due to a lack of SASL proficiency and cultural competence.

The South African Bill of Rights states that patients have the right to receive healthcare services in a language they understand. However, the study demonstrates that many AUDs and STAs continue to provide services to Deaf patients in a language that is neither understood nor accessible to them. This failure to accommodate Deaf people/SASL-users highlights a disregard for constitutional rights and underscores systemic discrimination within the healthcare system. If professionals continue to resist embracing SASL, Deaf individuals will remain marginalized, unable to access equitable and culturally appropriate healthcare services. Therefore, a fundamental shift in practice is needed—one that prioritizes people-centered care by respecting Deaf individuals' linguistic rights.

3. Training

The overall findings highlight a substantial gap in SASL training among AUDs and STAs. Many professionals receive limited exposure to SASL and Deaf culture during their education, resulting in biased counseling approaches and ineffective patient interactions. Similar concerns have been raised by Mophosho (2018) and Penn et al (2009), who emphasize that clinicians are often unprepared to assess and treat patients in languages other than English, further complicating service delivery.

Additionally, despite receiving training, many AUDs and STAs continue to prioritize medical intervention over socio-cultural focused intervention. This suggests that a change in

mindset is required rather than an expansion of training alone. The study illustrates how many professionals use a medical model of deafness when offering informational counseling to their Deaf patients. This approach frames Deafness as a condition to be "treated/fixed" rather than recognizing it as a linguistic and cultural difference. Such attitudes influence how AUDs and STAs perceive Deaf individuals, reinforcing exclusionary practices rather than fostering inclusivity. Addressing this issue requires not only curriculum improvements but also a fundamental shift in professional attitudes toward Deaf culture.

4. Systemic discrimination and exclusions

The research also highlights systemic inequities within the healthcare system, where language and culture impact the quality of services received. Amery (2017) underscores the historical marginalization of certain linguistic and cultural groups in healthcare, reinforcing the need for policy changes that promote equitable access to services for the Deaf community.

The findings suggest that AUDs and STAs continue to view Deaf patients as "other," reinforcing the idea that they are different and, in some cases, inferior to hearing individuals. This perspective is deeply rooted in systemic discrimination and reflects a broader societal tendency to categorize Deaf individuals based on hearing norms rather than embracing their linguistic and cultural identity. By failing to recognize Deaf individuals as part of a distinct cultural and linguistic minority, AUDs and STAs contribute to their ongoing exclusion from fully accessible healthcare services.

5. Tension

The findings highlighted a significant tension between AUDs/STAs and the Deaf community. Despite receiving training in SASL and Deaf culture, many professionals continue to operate from a medical perspective, prioritizing spoken language and hearing interventions over culturally and linguistically inclusive approaches. This has led to a disconnect between healthcare providers and Deaf patients, contributing to feelings of frustration and exclusion within the Deaf community.

The tension arises from the conflicting perspectives on d/Deaf identity. While the Deaf community views deafness as a cultural and linguistic identity, many AUDs and STAs continue to perceive it as a medical condition that requires intervention. This fundamental difference in perception creates a barrier to effective communication and trust-building between professionals and Deaf patients/clients. As a result, Deaf individuals often feel misunderstood and marginalized within healthcare settings, reinforcing the historical audist exclusion they have faced.

Additionally, the study suggests that this tension is exacerbated by the lack of accountability among AUDs and STAs in ensuring that their training translates into practical application. While they have the opportunity to integrate SASL into their practice, many choose not to, perpetuating the systemic discrimination faced by the Deaf community. This reluctance to fully embrace Deaf culture and language further deepens the divide between professionals and the communities they serve.

Addressing this tension requires a fundamental shift in mindset among AUDs and STAs. Professionals must recognize their role in dismantling biases and actively work toward fostering culturally and linguistically inclusive healthcare environments. This can be achieved through continuous professional development and continuous engagement with the Deaf community, without these changes, the tension between AUDs/STAs and the Deaf community will persist, ultimately hindering efforts to provide equitable and accessible healthcare services.

Limitations of the Study

1. Sample Size and Generalizability

The relatively small sample size limits the study's generalizability to all STAs and AUDs in South Africa. While the findings provide valuable insights, they may not fully represent the experiences of professionals across different institutions and regions.

2. Experiences of Deaf individuals

This study does not capture the perspectives or lived experiences of Deaf individuals or SASL users, which is a crucial aspect of evaluating the effectiveness of healthcare communication. Since the study focuses only on the training and professional experiences of AUDs and STAs, it does not provide a comprehensive understanding of how Deaf individuals perceive their interactions with these professionals.

Additionally, it does not assess the effectiveness of alternative communication strategies employed by AUDs and STAs in bridging communication gaps. Future research should incorporate the perspectives of the Deaf community to provide a more balanced and holistic understanding of the issue.

3. Content of the curriculum in different Universities

The study does not account for variations in SASL curriculum content across different universities. Differences in course structure, practical training opportunities, and instructional methodologies may influence the SASL proficiency and cultural competence of AUDs and STAs. Additionally, some participants in this study reported that the COVID-19 pandemic disrupted their overall learning experience, further complicating the assessment of SASL training effectiveness. Understanding how different universities structure their training and the extent of practical exposure would provide deeper insights into the inconsistencies observed in SASL proficiency among professionals.

Strengths of the Study

1. Mixed-Methods Approach

This study employed a mixed-methods approach, integrating both quantitative surveys and qualitative interviews. This combination provided a comprehensive understanding of the barriers and facilitators of SASL competence in clinical practice. Methodological triangulation strengthened the validity of the findings by offering both statistical insights and in-depth

participant experiences. Additionally, the study offered a holistic view of both research methods, revealing how and why STAs and AUDs may hold bias regarding SASL and Deaf culture.

2. Focus on responsive service delivery

The study sheds light on an often-overlooked aspect of healthcare: how linguistic barriers affects service delivery for Deaf individuals. By emphasizing the importance of SASL training, the research contributes to a growing body of literature advocating for inclusive and equitable healthcare practices. Addressing communication barriers enhances service accessibility and quality for Deaf patients, highlighting the urgent need for healthcare professionals to prioritize cultural and linguistic competence.

3. Insights into Bias

One of the study's key contributions is its identification of bias within clinical decision-making, particularly among STAs and AUDs when providing informational counselling to Deaf patients and parents of Deaf children. The findings indicate that many professionals unconsciously favour a medical perspective over a cultural-linguistic approach. By highlighting these bias, the study underscores the importance of self-awareness and ongoing training to ensure that professionals promote patient autonomy, informed decision-making, and culturally sensitive interactions.

4. Relevance of findings to South Africa's Multilingual Context

South Africa's linguistic diversity presents unique challenges for Deaf patients accessing audiology services. This study highlights the need for all languages, including SASL, to be equally recognized and respected within healthcare settings. The research reinforces the constitutional right of patients to receive services in their preferred language. Given South Africa's multilingual landscape, the study calls for healthcare professionals, including STAs and AUDs, to continuously equip themselves with the necessary language skills to provide equitable and Deaf people-centred care.

5. Encouraging reflection among AUDs and STAs

This study provided an opportunity for STAs and AUDs to reflect on their training, bias, and assumptions: many of which may have been shaped unconsciously by the medical model of deafness. By engaging with the conceptual framework of cultural competence, professionals are encouraged to actively continue learning about Deaf culture and SASL to better serve Deaf patients. This reflective process is crucial in fostering self-awareness and improving healthcare delivery by ensuring that services align with the linguistic and cultural preferences of Deaf persons.

Recommendations and Implications

1. Encourage engagement with Deaf persons/clients

To build confidence and competence in working with Deaf individuals, training programmes should:

- AUDs and STAs should not rely on interpreters but should be aware of the important role that interpreters play in providing healthcare services to Deaf persons/SASL users.

2. Promoting Direct Communication and Reducing Overreliance on Interpreters

When interpreters are valuable, excessive reliance can hinder direct patient engagement. To address this:

- Encourage direct SASL communication between AUDs, STAs and Deaf patients whenever possible.
- Develop interdisciplinary collaboration models where STAs, AUDs and interpreters work together to create inclusive communication strategies.

3. Future studies

Future studies should include Deaf individuals' perspectives on their experiences with audiologists and speech therapists. This would provide valuable insights into:

- How Deaf patients perceive the communication strategies used by professionals.

- The effectiveness of SASL training in improving healthcare interactions.
- Potential areas of bias and exclusion that needs further intervention.

4. Strengthening cultural competence

Given the study's findings on bias within the profession, cultural competence training should be prioritized to ensure that STAs and AUDs adopt a Deaf people-centered, rather than purely medical, approach. This should involve:

- Encouraging reflection on their own bias.
- Policies that require professionals to demonstrate cultural competence as part of their qualifications.

5. Encouraging collaboration between AUDs, STAs and the Deaf community

Building stronger relationships between STAs, AUDs, and the Deaf community can help bridge gaps in cultural and linguistic understanding. Recommended actions include:

- Partnering with Deaf organizations (such as eDeaf) to develop best practices for communication in healthcare settings.

Conclusion

This study sought to explore potential bias among AUDs and STAs in South Africa regarding the use of SASL as a tool for service delivery in the Deaf community. The findings reveal that despite some exposure to SASL and Deaf culture during training, many STAs and AUDs continue to prioritize a medical model of deafness hence reinforcing communication barriers and limiting access to equitable healthcare. Over-reliance on interpreters, a lack of cultural competence, and systemic discrimination contribute to the exclusion of Deaf individuals from fully accessible and Deaf people-centered care.

The study underscores the urgent need for STAs and AUDs to self-reflect upon their own bias, engage in continuous learning, actively integrate SASL into their practice, and adopt a cultural-linguistic perspective that respects Deaf identity. While training in SASL is available, the study highlights that a mere expansion of training is insufficient without a fundamental shift in professional

attitudes and healthcare policies. Strengthening cultural competence, promoting direct communication with Deaf patients/clients, and ensuring ongoing professional development of AUDs and STAs are essential steps in dismantling systemic barriers.

References

Aarons, D., & Akach, P. (2002). Inclusion and the deaf child in South African education: Many languages in education: issues of implementation. *Perspectives in Education*, *20*(1), 153-170.

Aarons, D., & Akach, P. (1998). South African Sign Language-one language or many? A sociolinguistic question. *Stellenbosch papers in Linguistics*, *31*, 1-28.

Abbasian, R., & Khajavi, Y. (2011). Vocabulary forgetting, L1 and L2 memory representations and years of english disuse: investigating the possible relations

Adam, R., Carty, B., & Stone, C. (2011). Ghostwriting: Deaf translators within the Deaf community. *Babel*, *57*(4), 375-393.

Agrawal, Y., Platz, E. A., & Niparko, J. K. (2008). Prevalence of hearing loss and differences by demographic characteristics among US adults: data from the National Health and Nutrition Examination Survey, 1999-2004. *Archives of internal medicine*, *168*(14), 1522-1530.

Akach, P., Demey, E., Matabane, E., Van Herreweghe, M., & Vermeerbergen, M. (2009). What is South African sign language? What is the South African deaf community. In *Languages and education in Africa: A comparative and transdisciplinary analysis. Oxford, England: Symposium Books*.

Aldridge, J., & Becker, S. (1999). Children as carers: the impact of parental illness and disability on children's caring roles. *Journal of Family Therapy*, *21*(3), 303-32

American Speech-Language-Hearing-Association. (2002). *Guidelines for Audiology Service Provision in and for Schools.* Retrieved from http://www.asha.org.

American Speech-Language-Hearing Association. (2004). Scope of Practice in Audiology. https://www.asha.org/policy/SP2004-00192/#sec1.4

Amery, R. (2017). Recognising the communication gap in Indigenous health care. *Medical Journal of Australia*, *207*(1), 13-15.

Armstrong, T. W., Surya, S., Elliott, T. R., Brossart, D. F., & Burdine, J. N. (2016). Depression and health-related quality of life among persons with sensory disabilities in a health professional shortage area. *Rehabil Psychol*, *61*(3), 240-250. https://doi.org/10.1037/rep0000083

Bangani, Z. (2020). The Parliamentary Constitutional Review Committee is considering recognising South African Sign Language as the 12th official language.

https://businesstech.co.za/news/government/431478/south-africa-is-considering-a-12th-official-language/

Bartlett, S. (2018). Disabled or deaf? Investigating mental health clinicians' knowledge of and attitude towards deafness as a culture. *International Journal of Culture and Mental Health, 11*(4), 437-446.

Bartlett, G., Blais, R., Tamblyn, R., Clermont, R. J., & MacGibbon, B. (2008). Impact of patient communication problems on the risk of preventable adverse events in acute care settings. *Canadian Medical Association Journal, 178*(12), 1555-1562. https://doi.org/10.1503/cmaj.070690

Barnett, S., McKee, M., Smith, S. R., & Pearson, T. A. (2011). Peer reviewed: Deaf sign language users, health inequities, and public health: Opportunity for social justice. *Preventing chronic disease, 8*(2).

Bauman, H.D & Murray, J.M., (2009). Reframing: From hearing loss to Deaf gain. *Deaf Studies Digital Journal*, (1). Available from http://dsdj.gallaudet.edu/assets/section/section2/entry19/DSDJ_entry19.pdf [Accessed: 2 October 2016].

Bauman N. (2013). *New to hearing loss? Here's the help you need!* Available from http://hearinglosshelp.com/blog/new-to-hearing-loss-heres-the-help-you-need/ [Accessed: 2 June 2014].

Bauman, H.-D. L., & Murray, J. J. (2014). *Deaf Gain: Raising the Stakes for Human Diversity*. University of Minnesota Press.

Bauman-Waengler, J. (2008). Articulatory and phonological impairments: A Clinical Focus (3rd ed.). Boston, MA: Allyn & Bacon

Bennett, R. J., C. J. Meyer, B. Ryan, C. Barr, E. Laird, and R. H. Eikelboom. (2020). "Knowledge, Beliefs and Practices of Australian Audiologists in Addressing the Psychological Needs of Adults with Hearing Loss." American Journal of Audiology 29 (2): 129–142. doi:10.1044/2019_AJA-19-00087

Bell, R. K., Dillard, L. K., McRackan, T. R., Zhan, K. Y., Dubno, J. R., Saunders, J. E., & Dixon, P. R. (2025). Associations of Primary Spoken Language With Individual Perception of Hearing-Related Disability. *Ear and hearing*, *46*(1), 223-229.

Benjamin, E., Swartz, L., Chiliza, B., & Hering, L. (2016). Language barriers in health : lessons from the experiences of trained interpreters working in public sector hospitals in the Western Cape. *South African Health Review, 2016*(1), 73-81. https://doi.org/doi:10.10520/EJC189317

Betancourt, J. R., Green, A. R., & Carrillo, J. E. (2002). Cultural competence in health care: Emerging frameworks and practical approaches. *The Commonwealth Fund*.

Bhamjee, A., Mahomed-Asmail, F., Perold, J., Loock, J., & Roux, T. (2022). Cochlear implantation in South Africa (part 1). *South African medical journal = Suid-Afrikaanse tydskrif vir geneeskunde*, *112*, 8-10. https://doi.org/10.7196/SAMJ.2021.v111i1.16017

Blomquist, L. (2009). Language and identity: attitudes towards code-switching in the immigrant language classroom.

Boothroyd, A. (2018). The audiologist's role in deafness and hearing loss. Journal of Audiology, 45(2), 12-22.

Bouzaher, M. H., Wu, S., Ramanathan, D., Chi, D. H., Klaas, P., & Anne, S. (2024). Intelligence quotient testing in children with hearing loss: A systematic review. *American Journal of Otolaryngology*, *45*(3), 104219. https://doi.org/https://doi.org/10.1016/j.amjoto.2024.104219

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, *3*(2), 77-101.

Braun, V., & Clarke, V. (2013). Teaching thematic analysis: Overcoming challenges and developing strategies for effective learning. *The psychologist*, *26*(2).

Brink, Y., Louw, Q., & Grimmer-Somers, K. (2011). The quality of evidence of psychometric properties of three-dimensional spinal posture-measuring instruments. *BMC musculoskeletal disorders*, *12*, 1-11.

Brown, H. L., Hughes-Bell, A., & McDuffie, A. W. (2015). Caring for patients who are deaf or hard of hearing. *Journal of the American Academy of PAs*, *28*(12), 50-55.

Burch, M., & Kafer, J. (2008). Linguistic competence in healthcare: Addressing disparities in communication. *Journal of Health Communication, 13*(5), 439–450.

Butler, R., Skelton, T. & Valentine, G. Fall,G (2001). Language barriers: Exploring the world of the deaf. Disability Studies Quarterly, 21(4), 42-52

Brice, P. J., & Strauss, G. (2016). Deaf adolescents in hearing world: a review of factors affecting psychological adaptation. Adolescent Health, Medicine and Therapeutics, 2016(7), 67-76. http://doi.org/10.2147/AHMT.S60261

Boston University School of Public Health. (2018). Healthcare language barriers affect Deaf people too. *Boston University School of Public Health*. Retrieved from https://www.bu.edu/sph/news/articles/2018/healthcare-language-barriers-affect-deaf-people-too

Bowen, D. E. (2016). The changing role of employees in service theory and practice: An interdisciplinary view. *Human resource management review*, *26*(1), 4-13.

Byrne, D. C., Themann, C. L., Meinke, D. K., Morata, T. C., & Stephenson, M. R. (2012). Promoting hearing loss prevention in audiology practice. *Perspectives on Public Health Issues Related to Hearing and Balance*, *13*(1), 3-19.

Campinha-Bacote, J. (2003). Many faces: Addressing diversity in health care. *Online journal of issues in nursing*, *8*(1), 3.

Cacioppo, J. T., and L. C. Hawkley. 2009. "Perceived Social Isolation and Cognition." *Trends in Cognitive Sciences* 13 (10): 447–454. doi:10.1016/j.tics.2009.06.005.

Chaveiro, N., Porto, C. C., & Barbosa, M. A. (2009). The relation between deaf patients and the doctor. *Revista Brasileira de Otorrinolaringologia*, *75*(1), 147-150.

Cho, Lieu J. E. (2004) Speech-Language and Educational Consequences of Unilateral Hearing Loss in Children. Archives of Otolaryngology Head & Neck Surgery 130 (5): 524-30

Copeland, B. J., & Pillsbury, H. C., 3rd. (2004). Cochlear implantation for the treatment of deafness. *Annu Rev Med*, *55*, 157-167. https://doi.org/10.1146/annurev.med.55.091902.105251

Cottrell, C. E., Medwetsky, L., Boudreault, P., & Easterling, B. A. (2021). Assessing Audiologists' Exposure, Knowledge, and Attitudes when Working with Individuals Within the Deaf Culture. *Journal of the American Academy of Audiology*, *32*(07), 426-432.

CRL Rights Commission. (2023). *The recognition of the South African Sign Language as the country's 12th official language*. Retrieved from https://www.crlcommission.org.za/the-recognition-of-the-south-african-sign-language-as-the-countrys-12th-official-language/

Davies, E. C. (2015). Parenting attitudes and stress levels among parents of children who are deaf.

Daneshi, A., Farhadi, M., Emamjomeh, H., & Hasanzadeh, S. (2000). Management and the control of gusher during cochlear implant surgery. Advances in Oto-Rino-Laryngology, 57, 120–122.

Decker, K. B., Vallotton, C. D., & Johnson, H. A. (2012). Parents' communication decision for children with hearing loss: Sources of information and influence. *American annals of the deaf*, *157*(4), 326-339.

Dogra, N. (2007). The views of medical education stakeholders on guidelines for cultural diversity teaching. *Medical Teacher*, *29*(2-3), e41-e46.

Dogra, N., Conning, S., Gill, P., Spencer, J., & Turner, M. (2005). Teaching of cultural diversity in medical schools in the United Kingdom and Republic of Ireland: cross sectional questionnaire survey. *Bmj*, *330*(7488), 403-404. https://doi.org/10.1136/bmj.38338.661493.AE

Dolnick, E. (1993). Deafness as culture. The Atlantic Monthly, September, 37-53.

Duchan, J. F. (2004, November). Maybe audiologists are too attached to the medical model. In *Seminars in Hearing* (Vol. 25, No. 04, pp. 347-354). Copyright© 2004 by Thieme Medical Publishers, Inc., 333 Seventh Avenue, New York, NY 10001, USA.

Duchan, J. F., & McMorrow, M. L. (2002). Cultural competence and the role of speech-language pathologists in serving individuals who are deaf or hard of hearing. American Journal of Speech-Language Pathology, 11(2), 123-132.

Duldulao, M., & Ramsey, R. (2013). Aural rehabilitation. *Audiology Today*, *25*(4).

Du Plessis, S. (2018). Male students' perceptions about gender imbalances in a speech-language pathology and audiology training programme of a South African institution of higher education. South African Journal of Communication Disorders, 65(1), 570. http://doi.org/10.4102/sajcd.v65i1.570

Emond, A., Ridd, M., Sutherland, H., Allsop, L., Alexander, A., & Kyle, J. (2015). The current health of the signing Deaf community in the UK compared with the general population: a cross-sectional study. *BMJ Open*, *5*(1), e006668. https://doi.org/10.1136/bmjopen-2014-006668

European Disability Forum. (n.d.). *Barriers faced by Deaf people while accessing healthcare*. Retrieved from https://www.edf-feph.org/blog/barriers-faced-by-deaf-people-while-accessing-healthcare

Fellinger, J., Holzinger, D., & Pollard, R. (2012). Mental health of deaf people. *The Lancet*, *379*(9820), 1037-1044.

Field, A. (2018). *Discovering statistics using IBM SPSS statistics* (5th ed.). Sage.

Field, A. (2013). Discovering statistics using SPSS (4th ed.). Sage Publications.

Foltz, A., & Shank, C. (2019). Accessing healthcare is challenging for Deaf people- but the solution isn't 'one-size-fits-all". The Conversation. Accessed January 30 2024. https://theconversation.com/accessing-healthcare-is-challenging-for-deaf-people-but-the-best-solution-isnt-one-size-fits-all-127734

Friedner, M. (2023). Disability Justice as Part of Structural Competency: Infra/structures of Deafness, Cochlear Implantation, and Re/habilitation in India. *Health and Human Rights, 25/1, 2023, pp.* (1), 39-50

Fromkin, V., Rodman, R., & Hyams, N. (2018). *An introduction to language*. Cengage Learning.

Fry, C. L., Ritter, A., Baldwin, S., Bowen, K. J., Gardiner, P., Holt, T., ... & Johnston, J. (2005). Paying research participants: a study of current practices in Australia. *Journal of medical ethics*, *31*(9), 542-547.

Ganiso, M. N. (2012). *Sign language in South Africa: Language planning and policy challenges* (Doctoral dissertation, Rhodes University).

Gastman, B. R., Hirsch, B. E., Sando, I., Fukui, M. B., & Wargo M. L. (2002). The potential risk of carotid injury in cochlear implant surgery. Laryngoscope, 112, 262–266.

Gichane, M. W., Heap, M., Fontes, M., & London, L. (2017). "They must understand we are people": Pregnancy and maternity service use among signing Deaf women in Cape Town. *Disability and health journal*, *10*(3), 434-439.

Golafshani, N. (2003). Understanding reliability and validity in qualitative research. *The qualitative report*, *8*(4), 597-607.

Gómez, C. A., Kleinman, D. V., Pronk, N., Wrenn Gordon, G. L., Ochiai, E., Blakey, C., Johnson, A., & Brewer, K. H. (2021). Addressing Health Equity and Social Determinants of Health

Through Healthy People 2030. *Journal of Public Health Management and Practice*, *27*(Supplement 6), S249-S257. https://doi.org/10.1097/phh.0000000000001297

Gravel, J. S., & O'Gara, J. (2003). Communication options for children with hearing loss. *Mental Retardation and Developmental Disabilities Research Reviews*, *9*(4), 243–251. https://doi.org/10.1002/mrdd.10087

Guest, G. (2013). Describing mixed methods research: An alternative to typologies. *Journal of mixed methods research*, *7*(2), 141-151.

Gulliford, M., Figueroa-Munoz, J., Morgan, M., Hughes, D., Gibson, B., Beech, R., & Hudson, M. (2002). What does' access to health care'mean?. *Journal of health services research & policy*, *7*(3), 186-188.

Hall, W. C. (2017). What you don't know can hurt you: The risk of language deprivation by impairing sign language development in deaf children. *Maternal and child health journal*, *21*(5), 961-965.

Haimovich, G., & Mora, H. M. (2020). Why it's important to use Indigenous languages in health communication. *Languages on the Move*. https://www.languageonthemove.com/why-its-important-to-use-indigenous-languages-in-health-communication.

Haricharan, H. J., Heap, M., Coomans, F., & London, L. (2013). Can we talk about the right to healthcare without language? A critique of key international human rights law, drawing on the experiences of a Deaf woman in Cape Town, South Africa. *Disability & Society*, *28*(1), 54-66.

Harmer, L. (1999). Health care delivery and deaf people: practice, problems, and recommendations for change. *Journal of deaf studies and deaf education*, *4*(2), 73-110.

Harris, J. E. (2020). Taking disability public. *U. Pa. l. Rev.*, *169*, 1681.

Haualand, H., & Allen, C. (2009). Deaf people and human rights**.** World Federation of the Deaf.

Harris, J., & Bamford, C. (2001). The uphill struggle: services for deaf and hard of hearing people-issues of equality, participation and access. *Disability & society*, *16*(7), 969-979.

Heap, M., & Morgans, H. (2004). Language policy and SASL: interpreters in the public service. *a south african agenda*, 134.

Heap, M. 2003. *Crossing social boundaries and dispersing social identity: Tracing deaf networks from Cape Town*. PhD dissertation, University of Stellenbosch.

Henning, M. A., Krägeloh, C. U., Sameshima, S., Shepherd, D., Shepherd, G., & Billington, R. (2011). Access to New Zealand Sign Language interpreters and quality of life for the deaf: a pilot study. *Disabil Rehabil*, *33*(25-26), 2559-2566. https://doi.org/10.3109/09638288.2011.579225

Hommes, R. E., Borash, A. I., Hartwig, K., & DeGracia, D. (2018). American Sign Language Interpreters Perceptions of Barriers to Healthcare Communication in Deaf and Hard of Hearing Patients. *Journal of Community Health*, *43*(5), 956-961.

Hugo, R. (2004). Kommunikasiepatologie as beroep in die Suid-Afrikaanse konteks. *CLINICA: Applications in Clinical Practice of Communication Pathology*, *4*, 5-9.

Humphries, T., Kushalnagar, P., Mathur, G., Napoli, D. J., Padden, C., Rathmann, C., & Smith, S. R. (2012). Language acquisition for deaf children: Reducing the harms of zero tolerance to the use of alternative approaches. *Harm Reduction Journal*, *9*, 1-9.

Hussey, N. (2012). The language barrier: The overlooked challenge to equitable health care. *South African health review, 2012*(1), 189-195.

https://www.sanews.gov.za/features-south-africa/reflections-sas-12th-official-language

Hyde, M., & Power, D. (2006). Some Ethical Dimensions of Cochlear Implantation for Deaf Children and Their Families. *Journal of Deaf Studies and Deaf Education, 11* (1), 102-111.

Hyter, Y. D., & Salas-Provance, M. B. (2021). *Culturally responsive practices in speech, language, and hearing sciences*. Plural Publishing.

Iezzoni, L. I., O'Day, B. L., Killeen, M., & Harker, H. (2004). Communicating about Health Care: Observations from Persons Who Are Deaf or Hard of Hearing. Annals of Internal Medicine, 140(5), 356. https://doi.org/10.7326/0003-4819-140-5-200403020-00011.

In, J. (2017). Introduction of a pilot study. Korean Journal of Anesthesiology, 70, 601-604

Janghorban, R., Roudsari, R. L., & Taghipour, A. (2014). Skype interviewing: The new generation of online synchronous interview in qualitative research. *International journal of qualitative studies on health and well-being*, *9*(1), 24152.

Jean, Y. Q., Mazlan, R., Ahmad, M., & Maamor, N. (2018). Parenting stress and maternal coherence: Mothers with deaf or hard-of-hearing children. *American Journal of Audiology*, *27*(3), 260-271.

Johnston, T. (2006). W (h) ither the Deaf community? Population, genetics, and the future of Australian Sign Language. *Sign Language Studies*, *6*(2), 137-173.

Jones, M. (2002). Deafness as culture: A psychosocial perspective. *Disability studies quarterly*, *22*(2).

Joubert, K., Sebothoma, B., & Kgare, K. S. (2017). Public awareness of audiology, hearing and hearing health in the Limpopo Province, South Africa. *South African Journal of Communication Disorders*, *64*(1), 1-9.

Karliner, L. S., Jacobs, E. A., Chen, A. H., & Mutha, S. (2007). Do professional interpreters improve clinical care for patients with limited English proficiency? A systematic review of the literature. *Health services research*, *42*(2), 727-754.

Khoza-Shangase, K., & Mophosho, M. (2018). Language and culture in speech-language and hearing professions in South Africa: The dangers of a single story. *South African Journal of Communication Disorders*, *65*(1), 1-7.

Khoza-Shangase, K., & Mophosho, M. (2021). Language and culture in speech-language and hearing professions in South Africa: Re-imagining practice. *South African Journal of Communication Disorders*, *68*(1), 1-9.

Kritzinger, J., Schneider, M., Swartz, L., & Braathen, S. H. (2014). "I just answer 'yes' to everything they say": Access to health care for deaf people in Worcester, South Africa and the politics of exclusion. *Patient education and counseling*, *94*(3), 379-383.

Kuenburg, A., Fellinger, P., & Fellinger, J. (2016). Health care access among deaf people. *The Journal of Deaf Studies and Deaf Education*, *21*(1), 1-10.

Kusters, A. M. J. (2014). Deaf gain and shared signing communities. In *Deaf gain: Raising the stakes for human diversity* (pp. 285-305). University of Minnesota Press.

Kushalnagar, P., Reesman, J., Holcomb, T., & Ryan, C. (2019). Prevalence of anxiety or depression diagnosis in deaf adults. *The Journal of Deaf Studies and Deaf Education*, *24*(4), 378-385.

Ladd, P. (2003). Understanding Deaf culture: In search of Deafhood. Multilingual Matters.

Laird, E. C., Bennett, R. J., Barr, C. M., & Bryant, C. A. (2020). Experiences of hearing loss and audiological rehabilitation for older adults with comorbid psychological symptoms: A qualitative study. *American journal of audiology*, *29*(4), 809-824.

Lane, H. (2002). Do deaf people have a disability?. *Sign language studies*, *2*(4), 356-379.

Lane, H. (2005). Ethnicity, ethics, and the deaf-world. *Journal of deaf studies and deaf education*, *10*(3), 291-310.

Lane, H. (1992). *The Mask of Benevolence: Disabling the Deaf Community*. Alfred A. Knopf:https://iris.who.int/bitstream/handle/10665/41003/9241541261_eng.pdf

Lane, H., Hoffmeister, R., & Bahan, B. (1996). *A Journey into the DEAF-WORLD*. Dawn Sign Press.

Lavizzo-Mourey, R. J., Besser, R. E., & Williams, D. R. (2021). Understanding and Mitigating Health Inequities - Past, Current, and Future Directions. *N Engl J Med*, *384*(18), 1681-1684. https://doi.org/10.1056/NEJMp2008628

Leininger, M. M., McFarland, M. R., & McFarlane, M. (1987). *Transcultural nursing*. Citeseer.

Li, Y., Bain, L., & Steinberg, A. G. (2003). Parental decision making and the choice of communication modality for the child who is deaf. *Archives of Pediatrics & Adolescent Medicine*, *157*(2), 162-168.

Lesch, H. M. (2007). Plain language for interpreting in consulting rooms. *Curationis*, *30*(4), 73-78.

Levin, M. E. (2006). Language as a barrier to care for Xhosa-speaking patients at a South African paediatric teaching hospital. *South African Medical Journal*, *96*(10), 1076-1079.

Løkken, M. (2024). A standardised practice of language and understanding: When deaf parents and their babies meet paediatric nurses in Norwegian health centres for routine postnatal consultations. *Language and Health*, *2*(2), 100026.

Lotriet, A. (2001). Sign language interpreting in South Africa: Meeting the challenges. *Critical Link*, *2*.

Longhurst, R. (2003). Semi-structured interviews and focus groups. *Key methods in geography*, *3*(2), 143-156.

Macionis, J. J., & Plummer, K. (2012). *Sociology: A global introduction* (5th ed.). Pearson Education. https://www.sanews.gov.za/features-south-africa/reflections-sas-12th-official-language

Magongwa, L. M. (2024). Factors Inhibiting the Implementation of A South African Sign Language Curriculum in Schools for Deaf Learners. *Per Linguam: a Journal of Language Learning= Per Linguam: Tydskrif vir Taalaanleer*, *40*(2), 1-23.

Malebranche, M., Morisod, K., & Bodenmann, P. (2020). Deaf culture and health care. *Cmaj*, *192*(50), E1809. https://doi.org/10.1503/cmaj.200772

Marti, P., & Recupero, A. (2019, June). Is deafness a disability? Designing hearing aids beyond functionality. In *Proceedings of the 2019 Conference on Creativity and Cognition* (pp. 133-143).

Masuku, K. P., Moroe, N., & Van der Merwe, D. (2021). 'The world is not only for hearing people-It's for all people': The experiences of women who are deaf or hard of hearing in accessing healthcare services in Johannesburg, South Africa. *African Journal of Disability (Online)*, *10*, 1-8.

McHugh, M. L. (2013). *The Chi-Square test of independence*. Biochemia Medica, 23(2), 143-149.

McIlroy, G., & Storbeck, C. (2011). Development of deaf identity: An ethnographic study. *The Journal of Deaf Studies and Deaf Education*, *16*(4), 494-511.

McKee, M. M., Paasche-Orlow, M. K., Winters, P. C., Fiscella, K., Zazove, P., Sen, A., & Pearson, T. (2015). Assessing health literacy in deaf American sign language users. *Journal of health communication*, *20*(sup2), 92-100.

McQuaid, E. L. (2018). Barriers to medication adherence in asthma: The importance of culture and context. *Ann Allergy Asthma Immunol*, *121*(1), 37-42. https://doi.org/10.1016/j.anai.2018.03.024

McQuaid, E. L., & Landier, W. (2018). Cultural Issues in Medication Adherence: Disparities and Directions. *J Gen Intern Med*, *33*(2), 200-206. https://doi.org/10.1007/s11606-017-4199-3

Meibos, B. (2023). *Diagnostic Testing Uptake Rates After Abnormal Cell-Free DNA Screen Result* (Master's thesis, Rutgers The State University of New Jersey, School of Graduate Studies).

Meuter, R. F. I., Gallois, C., Segalowitz, N. S., Ryder, A. G., & Hocking, J. (2015). Overcoming language barriers in healthcare: A protocol for investigating safe and effective communication when patients or clinicians use a second language. *BMC health services research*, *15*(1), 371. https://doi.org/10.1186/s12913-015-1024-8

Mitchell, R. E., & Karchmer, M. A. (2004). Chasing the mythical ten percent: Parental hearing status and the incidence of severe to profound hearing loss in the United States. Sign Language Studies, 4(2), 138-163.

Mophosho, M. (2018). Speech-language therapy consultation practices in multilingual and multicultural healthcare contexts: Current training in South Africa. *African Journal of Health Professions Education*, *10*(3), 145-147.

Morgan, H. (2022). Conducting a qualitative document analysis. *The qualitative report*, *27*(1), 64-77.

Morgan, R., & Kaneko, M. (2020). Construction of deaf narrative identity in creative South African Sign Language. *Stellenbosch Papers in Linguistics Plus*, *59*(1), 1-20.

Morisod, K., Malebranche, M., Marti, J., Spycher, J., Grazioli, V. S., & Bodenmann, P. (2022). Interventions aimed at improving healthcare and health education equity for adult d/Deaf patients: a systematic review. *Eur J Public Health*, *32*(4), 548-556. https://doi.org/10.1093/eurpub/ckac056

Moroe, N.F (2013). The Experiences of Hearing Young-Adults Growing Up In Deaf- Parented Families in Gauteng

Moroe, N. (2018). Why fix it if it's not broken! The role of audiologists in families of hearing children born to deaf parents. *Hearing, Balance and Communication*, *16*(3), 173-181.

Moroe, N. F., & De Andrade, V. (2018a). 'We were our parents' ears and mouths': Reflecting on the language brokering experiences of hearing children born to deaf parents. *South African Journal of Child Health*, *2018*(1), s75-s78.

Moroe, N. F., & De Andrade, V. (2018b). Hearing children of Deaf parents: Gender and birth order in the delegation of the interpreter role in culturally Deaf families. *African Journal of Disability*, *7*(1), 1-10.

Moroe, N. F., & Hughes, D. A. (2020). Sustainable workforce: South African Audiologists and Speech Therapists. *Human Resources for Health*, *18*(1), 1-10. https://doi.org/10.1186/s12960-020-00488-6

Moroe, N., & Masuku, K. P. (2024). Sign Language and Other Minority Languages in Healthcare: Reframing language as a tool for accessing healthcare. In *The Routledge International Handbook of Disability and Global Health* (pp. 464-478). Routledge.

Moshman, D. (2005). *Adolescent Psychological Development: Rationality, Morality, and Identity* (2nd ed.). New Jersey: Lawrence Erlbaum Associates, Inc.

Munoz-Baell, I. M., & Ruiz, M. T. (2000). Empowering the deaf. Let the deaf be deaf. *Journal of Epidemiology & Community Health*, *54*(1), 40-44.

Nagdee, M., & de Andrade, V. (2023). South African speech-language therapists' and audiologists' professional quality of life. *International Journal of Audiology, 62*(1), 45-53. https://doi.org/10.1080/14992027.2023.2179830

National Association of Speech-Language and Hearing (2016). Cultural competence and the deaf community. Retrieved from [NASLHA website].

Ngobeni, W. P. (2017). *The effect of Sign Language barriers among Deaf Learners: A case study of a special school in Motheo district South Africa* (Doctoral dissertation, Bloemfontein: Central University of Technology, Free State).

Ngobeni, V., Breitenbach, M. C., & Aye, G. C. (2020). Technical efficiency of provincial public healthcare in South Africa. *Cost Effectiveness and Resource Allocation, 18*, 1-19.

Oates, J., Weston, W. W., & Jordan, J. (2000). The impact of patient-centered care on outcomes. *Fam Pract, 49*(9), 796-804.

Orenshein, J. (2023). Barriers to Optimal Audiological Care for Members of the Deaf Community.

Ong, L.M.L, De Haes, J.C.J.M., Hoos, A.M., & Lammes, F. B. (1995). Doctor-patient communication: A review of the literature. *Social Science and Medicine, 40* (7), 903-918.

Padden, C., & Humphries, T. (2005). *Inside Deaf culture.* Harvard University Press.

Padden, C., & Humphries, T. (1988). Deaf in America: Voices from a culture. Harvard University Press.

Pallant, J. (2020). *SPSS survival manual: A step-by-step guide to data analysis using IBM SPSS*. Routledge.

Panning, S., Lee, R. L., & Misurelli, S. M. (2021). Breaking Down Communication Barriers: Assessing the Need for Audiologists to Have Access to Clinically Relevant Sign Language. *Journal of the American Academy of Audiology*.

Parliament of South Africa. (2023). *The NA approves South African Sign Language as the 12th official language*. Retrieved from https://www.parliament.gov.za/press-releases/na-approves-south-african-sign-language-12th-official-language

Partida, Y. (2012). Language and Health Care. *Diabetes Spectrum*, *25*(1), 19-22. https://doi.org/10.2337/diaspect.25.1.19

Pedersen, P. (1988). *A handbook for developing multicultural awareness*. American Association for Counseling.

Penn, C. (2007). Factors affecting the success of mediated medical interviews in South Africa. *Current Allergy and Clinical Immunology, 20* (2), 66-72.

Penn, C., Mupawose, A., & Stein, J. (2009). From pillars to posts: Some reflections on community service six years on. *South African Journal of Communication Disorders, 56*(1), 8-16.

Penn, C., Watermeyer, J., Koole, T., de Picciotto, J., Ogilvy, D., & Fisch, M. (2010). Cultural brokerage in mediated health consultations: An analysis of interactional features and participant perceptions in an audiology context. *Journal of Interactional Research in Communication Disorders, 1*(1), 135 -156.

Pereira, P. C. A., & Fortes, P. A. de C. (2010). Communication and Information Barriers to Health Assistance for Deaf Patients. American Annals of the Deaf, 155(1), 31–37. https://doi.org/10.1353/aad.0.0128

Pfaff, C., & Couper, I. (2009). How do doctors learn the spoken language of their patients? *SAMJ: South African Medical Journal, 99*, 520-522. http://www.scielo.org.za/scielo.php?script=sci_arttext&pid=S025695742009000700016&nrm=iso

Pillay, M., Tiwari, R., Kathard, H., & Chikte, U. (2020). Sustainable workforce: South African audiologists and speech therapists. *Human Resources for Health, 18*, 1-13.

Pudans-Smith, K. K., Cue, K. R., Wolsey, J. L. A., & Clark, M. D. (2019). To deaf or not to deaf: That is the question. *Psychology, 10*(15), 2091.

Putnam, B., Alexander, S. P., McMenamin, K., & Welch, D. (2022). Deaf community views on paediatric cochlear implantation. *N Z Med J, 135*(1549), 26-42.

Ramkissoon, I., & Khan, F. (2003). Serving multilingual clients with hearing loss: How linguistic diversity affects audiologic management. *The ASHA leader, 8*(3), 1-27.

Reagan, T. (2020). A twelfth official language? The constitutional future of South African Sign Language. *Southern African Linguistics and Applied Language Studies, 38*(1), 73-85.

Reagan, T. (2008). South African Sign Language and language-in-education policy in South Africa. *Stellenbosch Papers in Linguistics, 38*(1), 165-190.

Reagan, T., Penn, C., & Ogilvy, D. (2006). From policy to practice: Sign language developments in post-apartheid South Africa. *Language Policy, 5*(2), 187-208.

Reagan, T., Penn, C. & Ogilvy, D. (2006). From Policy to Practice: Sign Language Developments in Post-Apartheid South Africa. *Language Policy, 5*, 187-208.

Reefhuis, J., Honein, M. A., Whitney, C. G., Chamany, S., Mann, E. A., Biernath, K. R., et al. (2003). Risk of bacterial meningitis in children with cochlear implants. New England Journal of Medicine, 349, 435–445.

Royal National Institute for Deaf People. (2021). Impact of communication barriers on Deaf patients in healthcare settings. *PubMed Central*. Retrieved from https://pmc.ncbi.nlm.nih.gov/articles/PMC8313197

Sacks, O. (2009). *Seeing Voices*. United Kingdom: Picador.

Scheier, D. B. (2009). Barriers to health care for people with hearing loss: a review of the literature. *The Journal of the New York State Nurses' Association*, *40*(1), 4-10.

Schmid, M. S. (2011). *Language Attrition.* Cambridge: Cambridge University Press.

Schmulian, D. (2002). Communicating: Choosing the oral route. In R. Hugo & T. Blumberg (Eds.), *Challenges and Choices: An aid for parents of children with hearing loss* (pp.26-35). Pretoria: Van Schaik Content Solutions.

Seeleman, C., Suurmond, J., & Stronks, K. (2009). Cultural competence: a conceptual framework for teaching and learning. *Medical Education*, *43*(3), 229-237. https://doi.org/https://doi.org/10.1111/j.1365-2923.2008.03269.x

Selzer, M. (2010). South African Sign Language used in Parliament: Is there a need for standardisation? (Unpublished doctoral dissertation). Stellenbosch University, Cape Town.

Shamsi, H., Almutairi, A. G., Mashrafi, S., & Kalbani, T. (2020). Implications of Language Barriers for Healthcare: A Systematic Review. *Oman Med J*, *35*(2), e122. https://doi.org/10.5001/omj.2020.40

Shezi, Z. M., & Joseph, L. N. (2021). Parental views on informational counselling provided by audiologists for children with permanent childhood hearing loss. *The South African Journal of Communication Disorders*, *68*(1).

Sheppard, K. (2014). Deaf adults and health care: Giving voice to their stories. *Journal of the American Association of Nurse Practitioners*, *26*(9), 504-510.

Sheppard, K., & Badger, T. (2010). The lived experience of depression among culturally Deaf adults. *Journal of psychiatric and mental health nursing*, *17*(9), 783-789.

Shuler, G. K., Mistler, L. A., & Torrey, K. (2013). Bridging communication gaps with the deaf. *Nursing*, *43*(11), 24-30.

Shuttleworth, M. (2009). Research Bias. Explorable. https://explorable.com/research-bias

Singh, S., Booth, A., Choto, F., Gotlieb, J., Robertson, R., Morris, G., ... & Mauff, K. (2015). New graduates' perceptions of preparedness to provide speech-language therapy services in general and dysphagia services in particular. *South African Journal of Communication Disorders*, *62*(1), 1-8.

Sparrow, R. (2005). Defending deaf culture: The case of cochlear implants. *Journal of Political Philosophy*, *13*(2), 135-152.

Stach, B.A. (2010). *Clinical Audiology. An Introduction* (2nd ed.). United States of America: Delmar Cengage Learning.

Stander, M., & McIlroy, G. (2017). Language and culture in the Deaf community: a case study in a South African special school. *Per Linguam*, *33*. https://doi.org/10.5785/33-1-688

Steinberg, A. G., Barnett, S., Meador, H. E., Wiggins, E. A., & Zazove, P. (2006). Health care system accessibility: experiences and perceptions of deaf people. *Journal of general internal medicine*, *21*, 260-266.

Steptoe, A., Sutcliffe, I., Allen, B., & Coombies, C. (1991). Satisfaction with communication, medical knowledge and coping style in patients with metastatic cancer. *Social Science and Medicine, 32* (6), 334-336.

Storbeck, C., & Martin, D. (2010). South Africa: An Overview. *American Annals of the Deaf, 155* (4), 489-490.

Storbeck, C., & Morgans, H. (2002). Communicating: Choosing Sign Language. In R. Hugo & T. Blumberg (Eds.), *Challenges and Choices: An aid for parents of children with hearing loss* (pp. 35-43).: Van Schaik Content Solutions.

Storbeck, C., & Swanepoel, D. (2009). *Early Hearing Detection and Intervention Services in South Africa.* Retrieved on June, 28, 2010 from http://www.ehdi.co.za/userfiles/file/early%20hearing%202_final_pdf.

Subedi, D. (2016). Explanatory Sequential Mixed Method Design as the Third Research Community of Knowledge Claim. American Journal of Educational Research, 4(7), 570-577.

Svirsky, M., Teoh, S.-W., & Neuburger, H. (2004). Development of language and speech perception in congenitally, profoundly deaf children as a function of age at cochlear implantation. Audiology, Neuro-Otology, 9, 224–233.

Swanepoel, D. W. (2006). Audiology in South Africa: audiología en sudáfrica. *International Journal of Audiology*, *45*(5), 262-266.

Szarkowski, A., & Brice, P. (2018). Positive psychology in research with the deaf community: An idea whose time has come. *The Journal of Deaf Studies and Deaf Education*, *23*(2), 111-117.

Tamaskar, P., Malia, T., Stern, C., Gorenflo, D., Meador, H., & Zazove, P. (2000). Preventive attitudes and beliefs of deaf and hard-of-hearing individuals. *Archives of family medicine*, *9*(6), 518.

Tariq, S., & Woodman, J. (2010). Using mixed methods in health research. J R Soc Med Sh Rep, 0, 1-8. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3697857/

Tucci, D.L., Merson, M.H., & Wilson, B.S. (2009). A Summary of the Literature on Global Hearing Impairment: Current Status and Priorities for Action. *Otology & Neurotology, 01*, 1-11.

Turner, O., Windfuhr, K., & Kapur, N. (2007). Suicide in deaf populations: a literature review. *Ann Gen Psychiatry*, *6*, 26. https://doi.org/10.1186/1744-859x-6-26

Ubido, J., Huntington, J., & Warburton, D. (2002). Inequalities in access to healthcare faced by women who are deaf. *Health & Social Care in the Community*, *10*(4), 247-253.

UN General Assembly. (1966). International Covenant on Economic, Social and Cultural Rights. https://www.ohchr.org/en/instruments-mechanisms/instruments/international-covenant-economic-social-and-cultural-rights

United Nations. (1948). Universal Declaration of Human Rights. https://www.un.org/en/about-us/universal-declaration-of-human-rights

Unspoken ASL. (n.d.). *Support for the Deaf community in South Africa*. Retrieved from https://www.unspokenasl.com/aslblogs/support-for-the-deaf-community-in-south-africa

Van der Riet, M., & Durrheim, K. (2006). Putting design to practice: writing and evaluating research proposals. In M. Terre Blanche, K. Durrheim & D. Painter (Eds.), *Research in Practice* (2nd ed.) (pp. 80 - 112). Cape Town University Press.

Van Dijk, C.A. (2003). *An educational audiology service delivery model: needs of teachers and children with hearing loss.* (Unpublished dissertation submitted for the degree of Doctor of Philosophy, Department of Speech Pathology and Audiology). University of Pretoria, South Africa.

Van Herreweghe, M., & Vermeerbergen, M. (2010). Deaf perspectives on communicative practices in South Africa: institutional language policies in educational settings.

Van Wieringen, J., Kijlstra, M., & Schulpen, T. (2003). Medical education in the Netherlands: little attention paid to the cultural diversity of patients. *Nederlands tijdschrift voor geneeskunde*, *147*(17), 815-819.

Varela, C., Ruiz, J., Andrés, A., Roy, R., Fusté, A., & Saldaña, C. (2016). Advantages and disadvantages of using the website SurveyMonkey in a real study: Psychopathological profile in people with normal-weight, overweight and obesity in a community sample. *E-methodology*, *2016*(3), 77-89.

Wachtler, C., & Troein, M. (2003). A hidden curriculum: mapping cultural competency in a medical programme. *Medical Education*, *37*(10), 861-868. https://doi.org/https://doi.org/10.1046/j.1365-2923.2003.01624.x

Warren, S., E, Lopez, L., C, Anthony, T., & Coco, L. (2024). Communication Public Health: An Integration of Audiology, Speech-Language Pathology, and Public Health. *Journal of Speech, Language, and Hearing Research*, *67*(9), 3022-3039. https://doi.org/doi:10.1044/2024_JSLHR-23-00491

Weinstein, B. E., & Taylor, B. (2015). How to Advance the Audiologist–Primary Care Physician Relationship. *The Hearing Journal*, *68*(3), 32-34.

Wehrmeyer, J. (2014). Eye-tracking Deaf and hearing viewing of sign language interpreted news broadcasts. *Journal of Eye Movement Research*, *7*(1).

Whicker, J., Muñoz, K., & Schultz, J. C. (2018, February). Counseling in audiology: Au. D. students' perspectives and experiences. In *Seminars in Hearing* (Vol. 39, No. 01, pp. 067-073). Thieme Medical Publishers.

Wilson, A., & Moodley, K. (2021). Barriers to Effective Communication in Healthcare: The Case of Deaf Patients and SASL**.**

Witko, J., Boyles, P., Smiler, K., & McKee, R. (2017). Deaf New Zealand sign language users' access to healthcare. *NZ Med J*, *130*(1466), 53-61.

Witte, T. N., & Kuzel, A. J. (2000). Elderly deaf patients' health care experiences. *The Journal of the American Board of Family Practice*, *13*(1), 17-22.

Wright, M., Coffey, M., & Sussman, C. (2020). Cultural competency in the healthcare environment: Implications for speech-language pathologists. Journal of Communication Disorders, 78, 45-56.

Woodward, J. & Horejes, T. (2016). d/Deaf: Origins and Usage. In G. Gertz, & P. Boudreault (Eds.), The SAGE Deaf Studies Encyclopedia (Vol. 1, pp. 284-287). Thousand Oaks, CA: Sage Publications. [Paper reference 1]

Woodward, J. (1975). How You Gonna Get to Heaven if You Can't Talk with Jesus: The Educational Establishment vs. the Deaf Community. Amsterdam, The Netherlands: Paper Presented at the Annual Meeting of the Society for Applied Anthropology. [Paper reference 12]

World Health Organization. (2021). *World Report on Hearing.* Geneva: WHO.

World Health Organization. (2018). Health equity and its determinants. WHO Press.

World Health Organization. (2018). *Health workforce requirements for universal health coverage and the Sustainable Development Goals.* WHO Press. https://www.who.int/publications/i/item/health-workforce-requirements

Yeo, R., & Moore, K. (2003). Including disabled people in poverty reduction work:"Nothing about us, without us". *World Development*, *31*(3), 571-590.

Young, A., & Temple, B. (2014). Approaches to social research: The case of Deaf studies. Oxford University Press.

Young, A., Napier, J., Oram, R., & Connor, J. (2019). What should we teach new professionals about working with deaf people? Interdisciplinary perspectives. *Disability & Society*, 34(7–8), 1252–1273.

Zulu, T., Heap, M., & Sinanovic, E. (2017). The cost and utilisation patterns of a pilot sign language interpreter service for primary health care services in South Africa. *Plos one*, *12*(12), e0189983.

APPENDICES

Appendix A: Participant information sheet to speech therapists and audiologists (STAs) and audiologists (AUDs)

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

SCHOOL OF HUMAN AND COMMUNITY DEVELOPMENT
SPEECH PATHOLOGY AND AUDIOLOGY

Hello,

My name is Tsakane Matjeke, I am doing a Master of Arts in Audiology at the University of the Witwatersrand. For my research, I am conducting a study entitled: **Lifting the lid on potential bias: *Audiologists and speech therapists and Audiologists and South African Sign Language as a tool of service delivery in the Deaf Community and SASL users in South Africa - An explanatory study***

As part of this study, I would like to invite you to participate by completing a survey that will take roughly 10-20 minutes to complete via the below link to google forms. The questions will include hearing aid fitting and trialing practices. You may further be contacted to participate in the second phase of my study whereby you may be asked to write your email address in the first phase of the study.

Your identity will remain confidential. Participation in voluntary thus there are no penalties should you not wish to participate or decide to withdrawal from the study. No compensation will be received by participating in this study and there will be no payment or cost associated with participation in the study. A summary of the results obtained will be shared with you if you are interested once the study has been completed.

This study has been approved by the Human Research Ethics Committee (Medical) of the University of the Witwatersrand, Johannesburg. A principal function of this Committee is to safeguard the rights and dignity of all individuals who agree to participate in a research project and the integrity of the research.

If you have any concern over the way the study is being conducted, you may contact the below listed individuals.

Chairperson- Clement.Penny@wits.ac.za Tel: 011 717 2301

Committee secretariat- Zanele.Ndlovu@wits.ac.za Tel: 011 717 2700/1234

Thank you for taking time to read this information sheet.

Should you require any further information, feel free to contact myself or my supervisor directly. Our contact details are as follows:

Student - Tsakane Matjeke: tsakane.twin@gmail.com Cell: 079 340 0466

Supervisor - Nomfundo Nzuza- Moroe: nomfundo.moroe@wits.ac.za Tel: 011 717 4501

Yours faithfully,

Tsakane Matjeke

Name of Participant Date

_____ _____

Umthombo Building – 1st Floor, Room U132, Braamfontein East Campus , Private Bag 3, WITS 2050
T +27 11 717 4577 | **E** sppa.SHCD@wits.ac.za | www.wits.ac.za/shcd/speech-pathology-and-audiology/

Appendix B: Consent Form: Audio recording

Study Title: **Lifting the lid on potential bias:** ***Audiologists and Speech Therapists and Audiologists and South African Sign Language as a tool of service delivery in the Deaf Community and SASL users in South Africa - An explanatory study***

Researcher: T. Matjeke

1. I have been given a Participant Information Sheet which explains the nature and processes involved in this study, which is attached hereto;
2. I was given time to read it, or had it read to me, in the language I best understand;
3. I am free to contact the researcher and supervisor of this project about any questions or concerns as well as requesting any further details, on the contact details provided
4. I believe I fully understand why the study is being conducted and what the intended outcomes will be;
5. I understand that there will be no immediate benefit to me should I agree to participate, nor will I receive any payment; conversely, participation will not cost me anything but my time;
6. I understand that, even if I initially consent to take part in the study, I may subsequently withdraw at any time and would not be required to give any reasons; if this happens, any data collected about me for the study would immediately be destroyed, unless I give consent for it to be retained
7. I have been given a range of contact details. If I require further information or become concerned about any aspect of this study, I am free to speak to any of these contacts.
8. I understand that my participation will remain anonymous.
9. I understand that my interview may be recorded for data keeping purposes.

I,_____, hereby agree to participate in this pilot research study. I understand the purpose of the research study and have read the information provided stating the participation requirements of this pilot study. I provide consent to audio record the interview. I understand that my participation in the study is voluntary and confidential, and that refusal to participate or withdraw will not incur any loss of benefit.

Date: _____

Signature of participant: _____

Telephone number of participants: _____

Signature of researcher: _____

Appendix: C: Survey

Lifting the lid on potential bias: Audiologists and Speech Therapists and Audiologists and South African Sign Language as a tool of service delivery in the Deaf Community and SASL users in South Africa - An explanatory study

Thank you for agreeing to participate in this study.

Please take a few minutes to complete this survey on *Lifting the lid on potential biases: Audiologists and Speech Therapists and Audiologists and South African Sign Language as a tool of service delivery in the Deaf Community and SASL users in South Africa - An explanatory study.* All answers from the survey will be kept confidential and used solely for academic purposes. Thank you for your participation.

INFORMED CONSENT

By completing and submitting this survey, I am giving consent for the information that I have supplied to be used by the researcher (please tick box as appropriate)

□

I consent to the researcher using anonymous quotes as part of the research report.

□

A. DEMOGRAPHICS

1. Please state your sex

□ Male □ Female □ Prefer not to say

2. Please state your age:

22-30 years	31-40 years	41-50 years	51 years and older

3. Please state your race

□ Black African □ White

□ Coloured □ Indian

□ Other

If other, please specify: _____

4. Which university did you receive training as an audiologist/ speech therapist and audiologist at?

□ UCT □ UP □ Wits □ SMU □ UKZN

Please state your qualification:

□ Audiologist □ Speech therapist and audiologist

5. How many years have you been working?

□ 1-5years □ 6-10 years □ 11 years +

6. Which settings have you worked at ?*You can choose more than one option if applicable.*

□ public setting □ private setting □ school setting □other,

if other, please specify_____

Section B: Questions on training of SASL.

1. In which year were you taught South African Sign Language (SASL)?

□ 1st year □ 2nd year □ 3rd year □ 4th year

2. Which discipline taught you SASL in your undergraduate training?

□ Audiology Dept □ Linguistics Dept □ Language Dept Deaf studies Dept

If other, please specify _____

3. What was the content covered in your undergraduate training in relation to SASL? *You can choose more than one option if it is applicable.*

□ Deaf culture □ basic SASL □ clinical signing □ other/more

If other/more, Please specify _____

4. How often where the SASL lectures?

□ 1hour/weekly □ 2hours/weekly □ 3hours/weekly □ other

If other, please specify_____

5. Did you receive any clinical training in relation to the Deaf community during your undergraduate training as an audiologist/speech therapist & Audiologist?

□ Yes □ No

6. In which year of study did you receive clinical training on people who are Deaf/SASL users?

□ 1st year □ 2nd year □ 3rd year □ 4th year

7. How long was the clinical training with the Deaf community?

□ 3 months □ 6 months □ a year □ other

If other, please specify_____

8. Do you feel that you were fully prepared to aid people who are Deaf/SASL users given the duration of the SASL course?

□ Yes □ No

If no, please elaborate_____

_____

_____

_____

9. How familiar would you say you are with the history of Deaf culture?

1= Not familiar at all	2= somewhat familiar	3= neutral	4= familiar	5= highly familiar

10. If there were an opportunity to take more classes regarding Deaf culture, how likely would you be willing to take it?

1= No response	2= unlikely	3= neutral	4= likely	5= highly likely

11. Do you know the distinction between Deaf(capital "D") versus deaf (lower case "d")?

1= Not at all	2= somewhat know	3= maybe	4= probably	5= yes, definitely

12. From some perspectives, being deaf is considered a disability, how would you respond to that?

1= strongly disagree	2= disagree	3= neutral	4= agree	5= strongly agree

13. In your opinion, how important is it to know about Deaf culture as a qualified speech therapist and audiologist(STAs) and as an audiologist(AUDs)?

1= unrelated	2= unimportant	3= neutral	4= important	5= very important

SECTION C: Questions on clinical experience in relation to communication with the Deaf community/SASL users.

1. In clinical practice, have you ever assisted someone who identifies with the Deaf community/SASL user?

□ Yes □ No

2. In clinical practice, roughly how many Deaf patients have you communicated with and provided services to?

Less than 5	6-10	More than 10

3. From a scale of 1-5, are you able to communicate with people who are Deaf/SASL users using SASL? 1: not at all, 5 being most definitely?

1= not in tune at all	2= somewhat in tune	3= neutral	4= in tune	5= most in tune

4. From a scale of 1-5, how knowledgeable are you(as an audiologist/ speech therapist and audiologist) with Deaf culture?1: not in tune at all, and 5 being most in tune?

1= not in tune at all	2= somewhat in tune	3= neutral	4= in tune	5= most in tune

5. From a scale of 1-5, as an audiologist/speech therapist and audiologist, do you feel you were adequately prepared to provide services well as communicate with people who are Deaf/SASL users? 1: being not prepared at all, 5: highly prepared.

1= Not prepared at all	2= somewhat prepared	3= neutral	4= prepared	5= highly prepared

Please elaborate on your answer why;

_____

_____

_____

_____

_____

_____

6. From a scale of 1-5, as an audiologist/speech therapist and audiologist, do you feel confident when you are communicating with the Deaf community? 1: being not confident at all; 5: highly confident.

1=Not confident at all	2= somewhat confident	3= neutral	4= confident	5=highly confident

Please state why:

_____

_____

_____

_____

7. From a scale of 1-5, as an audiologist/speech therapist and audiologist, do you feel competent when you are communicating with the Deaf community? 1: being not competent at all; 5: highly competent.

1=Not competent at all	2= somewhat competent	3= neutral	4= competent	5=highly competent

Please state why:

_____

_____

_____

_____

8. Have you ever encountered challenges when communicating with people who are Deaf?

□ Yes □ No

If yes, please elaborate_____

9. Do you think you require interpretation services when communicating with the Deaf community in your line of work?

□ Yes □ No

If no/yes, please state your reasons

_____

_____

_____

_____

_____

10. Do you use other methods (excluding SASL) of communication with Deaf people?

□ Yes □ No

If yes, please state the method/s;

_____

_____

_____

11.In your line of work, how do the Deaf people make appointments,?

_____

_____

_____

12. How do you get attention of a person who is Deaf?

_____

_____

_____

_____

THANK YOU FOR TAKING THE TIME TO FILL OUT THIS SURVEY. YOUR INPUT IS GREATLY APPRECIATED!

If you would like to further participate in this study, please leave your details below;

Name:

Contact details:

Email address:

Appendix: D: interviews

PHASE 2: INTERVIEWS

Demographic Information

1. Where did you study?
2. When did you complete your undergraduate degree?
3. Did you qualify as an Audiologist AUD or STA)?
4. How long have you been working as an AUD/STA?
5. What type of settings have you worked in as an AUD/STA (e.g., private, public, educational)? Where is your current workplace?

Training and Preparation

6. In which year did you undergo your South African Sign Language (SASL) clinical training?
7. How long was your SASL clinical training?
8. What are your thoughts concerning the duration of SASL clinical training at your undergraduate institution?
9. Do you think the theoretical component of SASL adequately prepared you for practical training? Please elaborate.
10. How do you think your undergraduate training impacted your ability to use SASL?

Communication with the Deaf Community

11. How do you communicate with Deaf people/SASL users?
12. Do you use any communication methods other than SASL when interacting with Deaf people?
13. As an STA/AUD, how would you describe your interactions with a Deaf person/SASL user (successful or not)? Please elaborate.
14. What can be done to ensure successful communication between AUDs/STAs and Deaf people? What do you think is the source of any communication issues?

15. Are there strategies you think could help overcome communication breakdowns between Deaf/SASL users and AUDs/STAs? Please share your views on their appropriateness.
16. Do you have access to an interpreter when treating a Deaf person/SASL user? If yes, how is the experience and interaction?

Role and Perspective on the Deaf Community

17. As an STA/AUD, what do you think is your role in the Deaf community?
18. In your opinion, do you think Deaf people are disabled or culturally different? Please elaborate on your answer.
19. What are your views on the medical vs. cultural definition of hearing loss?
20. What are your thoughts on the Deaf community in South Africa?
21. With SASL being formalized as one of South Africa's official languages, how do you think this will influence your engagement with the Deaf community?
22. What are your views on the deaf vs. Deaf debate?

Professional Perspective on Deafness

23. What are your thoughts on the perceived tension between the Deaf community and STAs/AUDs?
24. What are your thoughts on Deafness as a disability?
25. How do you think your training as an STA/AUD influences your views on Deaf people/Deaf culture?
26. Being a hearing individual, does this influence how you perceive Deaf people?

Working with Deaf Individuals and Families

27. Have you assisted/treated someone who is Deaf? If yes, how have you found working with Deaf people/SASL users?
28. When providing feedback to parents regarding decisions about SASL or hearing aids, what kind of feedback do you provide to parents of Deaf children?
29. Do you provide information about the Deaf community to parents, particularly those who may not be familiar with it and are relying on you as a health professional?
30. What types of communication methods do you offer to families with hearing-impaired/Deaf children?

31. How confident do you feel when communicating with Deaf people/SASL users? If you feel less confident, what can be done to improve this?
32. What factors contribute to your preparedness in communicating with Deaf people/SASL users?
33. Are there any factors that influence AUDs/STAs' ability or inability to communicate in SASL?

Appendix E: Consent form for participation in the study

This document is to state that I, _____, read and understood the requirements of the study titled "***Lifting the lid on potential bias: Audiologists and Speech Therapists and Audiologists and South African Sign Language as a tool of service delivery in the Deaf Community and SASL users in South Africa - An explanatory study***".

I acknowledge that my participation in the study is voluntary (of my own choice), and I am allowed to withdraw from the study at any time without any negative implications. I understand that all information attained from this study will be confidential and anonymity will be guaranteed. I am aware that I may ask for extra information about this study at any time.

_____ _____

Signature Date

_____

Witness

Appendix F

UNIVERSITY OF THE WITWATERSRAND JOHANNESBURG

Research Office

HUMAN RESEARCH ETHICS COMMITTEE (NON-MEDICAL)
R14/49 Matjeke

CLEARANCE CERTIFICATE	**PROTOCOL NUMBER: H22/03/17**
PROJECT TITLE	Lifting the lid on potential biases: Audiologists (AUDs) and Speech Therapists and Audiologists (STA) and South African Sign Language as a tool of service delivery in the Deaf Community and SASL users in South Africa - An exploratory study
INVESTIGATOR(S)	Ms T Matjeke
SCHOOL/DEPARTMENT	Human and Community Development/
DATE CONSIDERED	18 March 2022
DECISION OF THE COMMITTEE	Approved Risk Level: Minimal
EXPIRY DATE	05 June 2025

DATE 06 June 2022 **CHAIRPERSON** _____
(Professor J Watermeyer)

cc: Supervisor : Dr N Moroe

DECLARATION OF INVESTIGATOR(S)

To be completed in duplicate and **ONE COPY** returned to the Secretary at Room 10004, 10th Floor, Senate House, University. Unreported changes to the application may invalidate the clearance given by the HREC (Non-Medical)

I/We fully understand the conditions under which I am/we are authorized to carry out the abovementioned research and I/we guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to submit an amendment of the protocol to the Committee. **I agree to completion of a regular progress report. For Minimal and Low studies, this is due annually on 31 December. For Medium and High Risk studies, this is due twice annually on 30 June and 31 December.**

_____ 25 / 03 / 2025