

**Experiences of South African audiologists providing services to a culturally and
linguistically diverse population**

Annice du Venage

Submitted in partial fulfilment of the requirements for the degree

Master of Arts in Audiology

In the Department of Speech Pathology and Audiology

Faculty of Humanities

University of the Witwatersrand

August 2020

Acknowledgements

I would like to thank the following people that contributed to this research:

My research supervisor Dr Karin Joubert, for your guidance, wisdom, and enthusiasm throughout my dissertation. My parents for your love and support, without you I would never have reached this milestone in my life. My fiancé Wesley, for your endless motivation, support and patience.

Author's Declaration of Originality

I, Annice du Venage, hereby declare that this dissertation is my own work, except where due acknowledgement and reference have been made in the text. This dissertation is submitted for degree purposes at the University of the Witwatersrand. The views stated in this dissertation are the views of the author and in no way represent those of the University of the Witwatersrand. This dissertation has not been submitted or presented to any other national or international university.

Date: 2020-10-30

Signed: 

Abstract

Background: As a result of the country's significant cultural and linguistic diversity, South African audiologists are faced with several barriers to establishing effective communication during healthcare consultations. Effective communication is fundamental to the quality of all healthcare interactions and has been shown to provide benefits to clients, healthcare professionals (HCPs), and institutions. In general, HCPs and students display feelings of decreased confidence and competence when consulting culturally and linguistically diverse (CALD) clients in the absence of effective communication, negatively affecting service delivery and ultimately client outcomes. However, there is a dearth of information when specifically considering the experience of South African audiologists.

Objectives: To describe South African audiologists' experiences of providing services to a CALD population. The sub-aims focused on South African audiologists' use of translators and interpreters, as well as their perceived competence and confidence when providing audiological services to CALD clients.

Method: A mixed-method, sequential explanatory research design was employed. A sample of 67 audiologists completed an online survey. Their mean age was 30.18 years and they had an average working experience of 7.67 years. Most participants (61.2%) worked in urban settings, with only 13.4% working in a rural setting. Semi-structured interviews were conducted with five audiologists who completed the online survey.

Results: Findings revealed that as trained interpreters were an absent resource, participants mostly made use of untrained interpreters such as family members of the client. Participants displayed the lowest perceived confidence and competence when providing services to linguistically diverse clients. Decreased competence and confidence were also

reported when working with culturally diverse clients but to a lesser extent. Interpreter utilisation was found to materially improve the perceived competence and confidence levels of participants when providing services to CALD clients. Increased linguistic ability (being bilingual or multi-lingual) had a statistically significant effect on the competence and confidence levels of participants when providing audiological services.

Conclusion: These findings highlight the importance of effective communication between clients and providers in CALD settings. Training institutions, audiologists, and employers all have a significant role to play in ensuring that hearing healthcare services are acceptable and meet the needs of all clients, regardless of their culture and language.

Keywords: Cultural and linguistic diversity, South Africa, audiologist, effective communication, confidence, competence, interpreter

Table of Contents

Acknowledgements.....	i
Author’s Declaration of Originality.....	ii
Abstract.....	iii
List of Tables.....	viii
List of Figures.....	ix
List of Appendices.....	x
Chapter 1: Orientation	1
1.1 Rationale	1
1.2 Definitions of terms.....	4
1.3 Abbreviations and acronyms.....	5
1.4 Chapter outlines	6
1.5 Summary.....	7
Chapter 2: Literature Review	8
2.1 Healthcare Access	8
2.2 Health equity and health equality.....	9
2.3 Cultural competence.....	10
2.4 Health equality in South Africa	11
2.5 Hearing health equality in South Africa.....	19
2.6 Strategies to negate the impact of CALD.....	24

2.7	Theoretical framework: Cultural Responsiveness Capability Framework....	31
2.8	Summary.....	36
Chapter 3:	Methodology	37
3.1	Introduction.....	37
3.2	Research aims	37
3.3	Research design.....	38
3.4	Research context	39
3.5	Pilot study	40
3.6	Main study	44
3.7	Measures and equipment	50
3.8	Ethical considerations.....	53
3.9	Data collection	55
3.10	Validity, reliability and trustworthiness.....	56
3.11	Data analysis.....	59
3.12	Summary	61
Chapter 4:	Results.....	63
4.1.	South African audiologists' use of translators and interpreters when providing audiological services.....	65
4.2.	Perceived competence in providing audiological services	69
4.3.	Perceived confidence in providing audiological services	84
Chapter 5:	Discussion	95

5.1	South African audiologists' use of translators and interpreters when providing audiological services.....	95
5.2.	South African audiologists' perceived competence in providing audiological services to linguistically- and culturally diverse clients	98
5.3.	South African audiologists' perceived confidence in providing audiological services to linguistically- and culturally diverse clients	99
5.4.	Summary	102
Chapter 6:	Conclusions	103
6.1	Summary of findings	103
6.2	Strengths	104
6.3	Limitations of the study	104
6.4	Recommendations for future research.....	105
6.5	Implications of the study	106
6.7	Summary.....	108
References.....		109

List of Tables

Table 1: IAHA Capabilities (IAHA, 2015)	35
Table 2: Objectives, materials, procedures, results and recommendations from the pilot study	
- Online survey	41
Table 3: Objectives, materials, procedures, results and recommendations from the pilot study	
- Semi-structured interview	42
Table 4: Participant description: Participant group 1 ($n_1 = 67$)	46
Table 5: Participant description: Participant group 2 ($n_2 = 5$)	49
Table 6: Description of questions in the self-developed structured questionnaire	52
Table 7: Description of the semi-structured interview guide	53
Table 8: Statistical analysis completed	61
Table 9: Perceived competence in working with culturally diverse clients: Without and with	
an interpreter	72
Table 10: Perceived competence in working with linguistically diverse clients: Without and	
with an interpreter	77
Table 11: Perceived confidence in working with culturally diverse clients: Without and with	
an interpreter	87
Table 12: Perceived confidence in working with linguistically diverse clients: Without and an	
with interpreter	91

List of Figures

Figure 1. Schematic representation of a sequential explanatory design (Creswell, 2014a, p. 270)	39
Figure 2. Linguistic ability per ethnic group	47
Figure 3. Participants' reported comprehension of different languages	48
Figure 4. Themes and sub-themes derived from thematic analysis	64
Figure 5. Translator / Interpreter usage in the last year ($n_1 = 67$)	65
Figure 6. Untrained interpreter distribution as reported by participants	66
Figure 7. Use of translators and interpreters: Private vs. public healthcare sectors	67
Figure 8. Audiologists' perceived competence in providing audiological services to clients from different cultures ($n_1 = 67$)	70
Figure 9. Audiologists' perceived competence in providing audiological services to clients from different languages ($n_1 = 67$)	75
Figure 10. Audiologists' perceived confidence in providing audiological services to clients from different cultures ($n_1 = 67$)	85
Figure 11. Audiologists' perceived confidence in providing audiological services to clients from a different language ($n_1 = 67$)	89

List of Appendices

Appendix A: Survey questionnaire 109

Appendix B: Semi-structured interview questionnaire 139

Appendix C: Ethical Clearance 144

Appendix D: Institutional Permission - SAAA 145

Appendix E: Institutional Permission - SASLHA 149

Appendix F: Institutional Permission - National Speech Therapy and Audiology
Forum.....153

Appendix G: Survey - Informed consent and participant information sheet 157

Appendix H: Interview - Informed consent and participant information sheet..... 159

Chapter 1: Orientation

This chapter provides an orientation to the research. It includes the rationale of the study, definitions of terms used within the study, clarification of abbreviations and acronyms used, and lastly, outlines of the six chapters in the research.

1.1 Rationale

The world's population is culturally and linguistically diverse (CALD) as is evidenced by the varied number of cultures and approximately 7 000 different languages spoken globally (Leben, 2018). South Africa is no exception, with its Constitution recognising 11 official languages and stipulating that “all official languages must enjoy parity of esteem and must be treated equitably” (Health Professions Council of South Africa [HPCSA], 2019, p.8). These languages include Afrikaans, English, isiNdebele, isiXhosa, isiZulu, Sepedi, Sesotho, Setswana, SiSwati, Tshivenda, and Xitsonga. In addition to those officially recognised, a range of non-official languages are also spoken including, but not limited to, Khelobedu, siPhuthi, South African Sign Language, and several foreign languages (Pascoe et al., 2017). This cultural and linguistic diversity affects all South Africans in one way or another and quite understandably restricts effective communication in all facets of everyday life.

In the context of healthcare, effective communication underpins the quality of care and facilitates numerous benefits to clients, health professionals and institutions (Blackstone et al., 2011; Hunter-Adams & Rother, 2017; Pascoe et al., 2013; Penn & Watermeyer, 2018a; Van den

Berg, 2016). While it cannot account for all challenges the South African healthcare system is presently stricken by; cultural and linguistic diversity that appears to play an influential role (Khoza-Shangase & Mophosho, 2018).

The South African government has made an effort to address historic inequalities by initiating assorted health reforms to ultimately achieve equal healthcare for the entire population (Penn & Watermeyer, 2018b). Pitted against more pressing concerns in the health system, issues emanating from cultural and linguistic diversity however continue to be under prioritised in the South African government's health reform efforts.

Several solutions to mitigate the effects of cultural and linguistic diversity in healthcare consultations are proposed. These include: (i) the employment of trained translators or interpreters to act as mediators (Barratt et al., 2012); (ii) transformation of the audiology and speech-language therapy profession (Barratt et al., 2012; Khoza-Shangase & Mophosho, 2018); (iii) healthcare providers should learn to speak the language of their clients (Van den Berg, 2016); (iv) universities offering courses that focus on cultural and linguistic diversity (Quach & Tsai, 2017), and (v) additional education for students and graduates upon clinical placement (Mikkonen et al., 2015).

The overwhelming majority of research relating to cultural and linguistic diversity, however, places most of its focus on the perspectives of clients or healthcare professionals (HCPs) other than audiologists (Barratt et al., 2012; Blackstone et al., 2011; Hunter-Adams & Rother, 2017; Van den Berg, 2016). It is equally important to examine the experiences of HCPs such as audiologists (Hunter-Adams & Rother, 2017; Pascoe et al., 2013; Van den Berg, 2016). It seems likely that when an audiologist, or any other HCP, is faced with a situation where a common language is not

shared or understood during a consultation, the ultimate experience will be negative for both the client and HCP.

Local and international research studies have found that both students and professionals experience a great deal of consternation when consulting with clients across language barriers (Guiberson & Atkins, 2012; Holland et al., 2012; Mikkonen et al., 2015; Singh et al., 2015). It was found that the ability to use one's language of choice was an obvious empowering factor in these situations (Kathard et al., 2011). Guiberson and Atkins (2012) further reported that Australian speech-language pathologists experienced feelings of incompetence and decreased confidence when working with linguistically diverse clients. Holland and colleagues (2012) found language and culture to similarly be internal determinants for professional confidence in South African occupational therapy students.

To improve healthcare outcomes for all South Africans, HCPs and healthcare systems must display cultural responsiveness toward CALD individuals. While the experiences of all HCPs warrant scrutiny, this study focused on South African audiologists and aimed to determine the degree to which cultural and linguistic diversity affects their professional confidence and competence and service delivery, by addressing the following question: What experiences do South African audiologists have when providing services to CALD clients?

1.2 Definitions of terms

Frequently used terms within the context of the study are explained below:

Cultural and linguistic diversity: The state of being varied in culture and language (Hornby, 1995a). Languages form the most immediate manifestation of cultural diversity (Matsuura & Riviere, 2009).

Cultural diversity: The state of being varied in human culture (Hornby, 1995a).

Cultural responsiveness: Cultural responsiveness forms part of person-centered care (PCC), and it includes the provision of culturally appropriate care by HCPs. Being culturally responsive entails respecting people's backgrounds, social behaviours, internal beliefs, morals, lifestyle choices, and values (Agency for Clinical Innovation, 2020; Indigenous Allied Health Australia [IAHA], 2015).

Healthcare professional: Individuals who aim to maintain human health by applying evidence-based healthcare (World Health Organisation [WHO], 2013). Individuals include nursing, medical, and allied health professionals (Mophosho, 2017).

Interpreter: An individual who transposes spoken or signed communication from one language to another (Riquelme & Rosas, 2009).

Linguistic diversity: The state of being varied in languages (Hornby, 1995a).

Person-centered healthcare: Involves viewing the person as a whole, and the inclusion of the client and their family in participating in the making of decisions regarding their healthcare and treatment (Jarrar et al., 2019; WHO, 2018).

Translator: An individual who transposes written text from one language to another (Riquelme & Rosas, 2009).

1.3 Abbreviations and acronyms

AUD	:	audiologist
CALD	:	Culturally and linguistically diverse
CPD	:	Continuing professional development
HCP	:	healthcare professional
HCPs	:	healthcare professionals
HPCSA	:	Health Professions Council of South Africa
PCC	:	person-centered care
SAAA	:	South African Association of Audiologists
SASLHA	:	South African Speech-Language-Hearing Association
STA	:	speech therapist and audiologist

1.4 Chapter outlines

The dissertation is presented in six chapters:

Chapter 1 provides a foundation for this research study. It encompasses the rationale of the study, definitions of terms used within the study, an explanation of abbreviations, and lastly, an outline of the chapters.

Chapter 2 comprehensively reviews the literature relating to the study and provides a theoretical framework and rationale for the research. It commences with an overview of cultural and linguistic diversity within the South African population and healthcare context. This is followed by a discussion of the importance of effective communication in healthcare interactions and the provision of PCC. The use of translators and interpreters, as well as the transformation of the audiology profession, is described. A discussion on various aspects of cultural and linguistic competence and perceived confidence by HCPs follows, and the chapter concludes by stating the rationale of the study.

Chapter 3 describes the research methodology, thus the procedures for scientific investigation that were followed for this study are explained within this chapter. Included is a description of research aims, design, and phases. Participant selection and description, as well as the research measures used, are presented. Ethical considerations and aspects related to validity, reliability, and rigor, as well as data collection and analysis, are described.

Chapter 4 gives an outline of the results obtained from the quantitative and qualitative phases of the research. Results are reported in relation to the research aims.

In Chapter 5 the results in relation to the main aim of the study are critically discussed.

Chapter 6 provides a summary of research findings, clinical implications, strengths, and limitations of the study, and finally, recommendations for future research.

The appendices provide important information for the understanding of the data collection and analysis procedure, and replication of the study.

1.5 Summary

This chapter delivers the rationale for the study by providing an introduction of contextually relevant background information. It includes definitions of terms used and an explanation of abbreviations and acronyms used. The chapter is concluded with a brief orientation of the research study by providing a condensed outline for each chapter.

Chapter 2: Literature Review

This chapter comprehensively reviews literature relevant to this study and provides a theoretical framework for the research. Cultural and linguistic diversity within the South African population and healthcare context are described, followed by effective communication in healthcare interactions and the provision of PCC. Literature regarding the utilization of translator and interpreter services and transformation of the audiology profession is also presented. This chapter is concluded by a discussion on several aspects of cultural and linguistic competence and perceived confidence by HCPs, and the rationale for the research.

2.1 Healthcare Access

While the definition of healthcare access varies across authors; for this study healthcare access is defined as an individual possessing the ability to identify healthcare needs and seek out the relevant healthcare services necessary to satisfy those needs (Levesque et al., 2013). The performance of any healthcare system pivots around accessibility and can be conceptualized into the five domains of approachability, appropriateness, availability and accommodation, affordability, and acceptability (Levesque et al., 2013). These domains are not independent constructs and often influence each other (Haddad & Mohindra, 2002a).

Approachability refers to individuals with healthcare needs being able to ascertain whether services able to address their needs exist and can be reached, whereas appropriateness denotes whether services are fit for purpose (Levesque et al., 2013). Availability and

accommodation concern itself with whether healthcare services can be physically reached in a timely manner (Levesque et al., 2013). Affordability relates to the financial viability of utilising healthcare services. Lastly, acceptability relates to individuals' acceptance or rejection of rendered health services on cultural and/or social grounds (Edusei & Amoah, 2014; Levesque et al., 2013).

As acceptability concentrates on the responsiveness of HCPs to the population's social and cultural expectations (Peters et al., 2008), the *acceptability* domain will be the focus of this study. Various factors such as gender, culture, social norms, and professional values influence the acceptability of healthcare services (Levesque et al., 2013). In light of this, acceptability embodies people's expectations and perceptions of the offered healthcare services (Peters et al., 2008). It is only when all five domains are met that healthcare access is equitable.

2.2 Health equity and health equality

The terms equity and equality are not synonyms, despite the interchangeable use thereof. Equality entails giving everyone the same thing or 'sameness', whereas equity involves 'fairness' and giving people what they need (Saskatoon Health Region, 2014a). Equity is essential to achieve true equality (The Glossary of Education Reform, 2016). As it pertains to healthcare, equity is only realised when all individuals have the opportunity to achieve their full health potential (Centers for Disease Control and Prevention, 2013); with such opportunity naturally encompassing access to appropriate and acceptable healthcare services. It is important to thus also consider ethnic and cultural diversity to ensure health equality (Hendriks, 2008).

2.3 Cultural competence

Diversity can be defined as a range of different people or things (Cambridge University Press, 2019). In terms of characteristics innate to humans, diversity relates to factors such as ethnicity, gender identity, social class, religious beliefs, political views, culture, and language (Ferris State University, 2019a). The focus of this research study is limited to differences in culture and language.

Culture is the collection of adopted beliefs, behaviours and artefacts of a person or a group of people that is used to define their social identity (Riquelme & Rosas, 2009). These aspects are either implicit (e.g. internal and must be inferred) or explicit (e.g. can be readily observed or perceived). Implicit cultural variables typically include beliefs concerning the male-female hierarchy, responsibility for child-rearing, and the role of the parent/guardian or HCP within healthcare settings. Explicit cultural variables include amongst other religions, dietary preferences, and language (Riquelme & Rosas, 2009).

Language is a function of an individual's culture and is a system of verbal and non-verbal signs (Pascoe et al., 2017) that, irrespective of communication delivery modality (spoken, written, signed), enables potential understanding between a speaker and a listener (Ali & Watson, 2018).

Being culturally competent entails the ability to deliver healthcare services that respect the linguistic, cultural, and social backgrounds of clients (Ihara, 2004). A culturally competent healthcare system can lead to a better quality of care and health outcomes and can facilitate the eradication of racial health disparities. Thus, culturally competent HCPs and healthcare systems help facilitate health equality.

Cultural and linguistic diversity influence health equality by restricting healthcare access in the ‘acceptability’ domain (Levesque et al., 2013). For example, people’s cultures and belief systems may guide them to use informal health services because of positive expectations even in the face of formalised services that may be more beneficial (Edusei & Amoah, 2014; Peters et al., 2008). For example, informal healthcare providers (such as travelling vendors) may have more suitable trading hours and locations, as well as less social barriers, causing their clients to patronise their services (Edusei & Amoah, 2014). In instances where healthcare providers and services are not culturally responsive and unable to meet clients’ cultural and social expectations, equitable healthcare access will not be achieved.

2.4 Health equality in South Africa

The South African Department of Health (SA DoH) supports the importance of the consistent advancement of the population’s health status and improvement of the healthcare system through a focus on healthcare access, sustainability, efficiency, quality, and equity (SA DoH, 2020).

2.4.1 The South African cultural and linguistic landscape

South Africa’s diverse cultural and linguistic landscape can be attributed to a combination of the recognition of 11 official languages, the presence of non-official and foreign languages (Pascoe et al., 2017), and the ubiquity of several native and foreign cultures. Regional variation of spoken languages further adds to this diversity (HPCSA, 2019).

South Africa's 11 official languages are Afrikaans, English, isiNdebele, isiXhosa, isiZulu, Sepedi, Sesotho, Setswana, SiSwati, Tshivenda, and Xitsonga. In 2018, the three most spoken languages were isiZulu (25.3%), isiXhosa (14.8%) and Afrikaans (12.2%). English was only ranked sixth (Government Communications and Information System [GCIS], 2019b). The majority of South Africans are multi-lingual, or at least bilingual in two of the official languages. The exceptions are the Indian and Asian population groups who were found to be predominantly monolingual (Government of South Africa, 2020).

The prevalence of foreign cultures and languages stems from the widespread immigration of foreign nationals to South Africa with the onset of democracy in 1994 (Statistics South Africa, 2016). Even though migration began in 1860 when gold was discovered in Johannesburg, migration still occurs in high volumes (Moonsamy et al., 2017). Migrants are individuals who moved away from their habitual place of residence, either across international borders or internally in a country (Keller & Manicom, 2019). Migrants move for various reasons, described as push and pull factors. Push factors are the reason people leave an area, including war, unemployment, natural disasters, and socio-economic conditions. Pull factors are motivations for people to move to a specific area, such as employment opportunities, better living circumstances, and access to education and healthcare (Keller & Manicom, 2019).

2.4.2 The South African Healthcare system

According to the Bill of Rights in Section 27 of the Constitution of the Republic of South Africa of 1996 access to healthcare is a basic human right (GCIS, 2019a). Currently, 71.5% of the nation's households access public health institutions (clinics and hospitals) for healthcare, while 27% make use of private healthcare services (doctors, clinics, or hospitals). Only a small percentage of households (0.7%) consult traditional healers (GCIS, 2019a). Similarly, McIntyre

and Ataguba (2017) found that the public health sector is used by more than 70% of the population for outpatient services and more than 80% for inpatient care. Public healthcare in South Africa is government-funded, whereas private healthcare is funded out of pocket or by medical insurance (Young, 2016). More than 80 medical schemes with over eight million beneficiaries existed in South Africa in September 2019 (GCIS, 2019a).

There are advantages and disadvantages to both public and private healthcare. Public health is free or inexpensive as it is government-funded and offered to all citizens, but it is disadvantaged in the sense of long waiting times, outdated facilities, rushed appointments, and poor disease prevention and control (Young, 2016). In contrast, with private healthcare, there are typically shorter waiting times, better facilities, and proper disease prevention and control, but is very expensive (Young, 2016).

In its current format, however, the South African healthcare system is reportedly split along socioeconomic lines (SA DoH, 2017; Young, 2016). This socioeconomic divide has led to the proposed implementation of National Health Insurance (NHI), its aim being the provision of quality healthcare services to all citizens and residents of South Africa irrespective of their socioeconomic status, and cultural and linguistic background (Benatar, 2013; GCIS, 2019a). The NHI envisions a healthcare system with improved healthcare access for the entire population, creating a major shift towards healthcare equity (GCIS, 2019a).

As the healthcare system's performance revolves around its accessibility, the NHI can address the five domains of healthcare access. NHI can facilitate the creation of approachable healthcare that is available and fit for purpose. It can also address the domain of affordability as NHI does not discriminate along socio-economic lines. Lastly, NHI can encourage the

acceptability of healthcare services, as it may be accepted or rejected based on cultural or social grounds, thus highlighting the need for cultural competence by HCPs.

2.4.3 The cultural and linguistic mismatch between the clients and the health workforce

Linguistic diversity is inherently protected by the South African Constitution as it states that “all official languages must enjoy parity of esteem and must be treated equitably” (HPCSA, 2019, p. 8). The Constitution also outlines several mechanisms to assist the growth, utilisation, and respect of non-official languages within the country. This would imply that even in the healthcare context all languages must be treated equitably.

To ensure efficacy, healthcare systems must align access to their services to the population they serve (Whitehead, 1992). Thus, the cultural and linguistic profile of an equitable healthcare workforce should mirror that of the population within which it operates (Kirmayer & Jarvis, 2019). A diversified healthcare workforce that is representative of the population where the services are based is linked to improved access to and quality of healthcare services for underserved populations and vulnerable groups (Harker, 2016).

In South Africa, the primary language in public healthcare facilities for client consultations is English (Pascoe et al., 2013), even though only 8.1% of the population’s home language is English (GCIS, 2019b). The majority of healthcare consultations are thus conducted across linguistic and cultural barriers as HCPs and clients do not always share the same home language (Hunter-Adams & Rother, 2017).

Research conducted at three Gauteng-based medical schools has indicated the progressive transformation of the gender and race profile of medical students and graduates (Khan et al.,

2013). When specifically considering African student enrolments at these schools, enrolments were found to have improved significantly between 1999 and 2011. A more recent study found that the majority of undergraduate medical students in South Africa were African (38.7%), followed by Caucasian (33.0%), Coloured (13.4%) and Indian/Asian (13.6%) (van der Merwe et al., 2016). Despite being in the majority, African undergraduate students remain disproportionately represented when considering the general population, where 81% of the populace is African (GCIS, 2019b).

Although this reflects systemic transformation at a tertiary education level, this transformation has not translated to a healthcare workforce that is representative of the cultural and linguistic distribution within South Africa. Amid this misrepresented workforce, HCPs that are not competent in meeting the cultural and linguistic needs of clients may negatively impact the acceptability of services (Ihara, 2004).

2.4.3. Impact of cultural and linguistic diversity

Effective communication between HCPs, clients, and their families is fundamental to the provision of safe, high-quality care. Effective communication within a healthcare context results in numerous benefits for clients, HCPs and institutions at large (Blackstone et al., 2011; de Moissac & Bowen, 2019; Hunter-Adams & Rother, 2017; Pascoe et al., 2013; Penn & Watermeyer, 2018a; Van den Berg, 2016).

Clients

Client benefits include, but are not limited to, improved accuracy of diagnosis, a better understanding of treatment, and increased adherence to treatment regimes which ultimately leads

to increased client satisfaction, and the likelihood of returning for follow-up appointments (Penn & Watermeyer, 2018a). In contrast, miscommunication due to cultural and linguistic diversity may negatively impact on client health outcomes and client safety (Crawford et al., 2017).

The cultural and linguistic diversity inherent to South Africa makes it difficult to deliver the Department of Health's mission of the consistent improvement of health status and the healthcare system (SA DoH, 2020). With an overwhelming majority of the South African populace accessing public healthcare (McIntyre & Ataguba, 2017), this is particularly concerning.

Language barriers have been found to negatively influence the attitudes of clients and HCPs towards each other and a decrease in clients' satisfaction with care received (Van den Berg, 2016). The same study also found that language barriers led to Xhosa clients falsely claiming to understand what HCPs explained, as they find it disrespectful to 'challenge' HCPs.

Anecdotal instances of prejudice were reported by Zimbabwean cross-border migrants (Hunter-Adams & Rother, 2017). In this study, it was reported that isiXhosa nurses capable of communicating in English refusing to do so despite clients, not understanding isiXhosa (Hunter-Adams & Rother, 2017). These participants further reported that they request isiXhosa-speaking persons to contact emergency services for fear that an ambulance would not arrive if they requested assistance in English (Hunter-Adams & Rother, 2017). For these Zimbabwean cross-border migrants, language is thus perceived as a vehicle for discrimination when receiving healthcare in South Africa.

Similar findings are reported around the globe (Abalos-Fabia et al., 2019; Henderson & Kendall, 2011). In Australia, it was found that CALD migrant communities, such as individuals

from Afghanistan, Myanmar, the Pacific Islands and Sudan, also experienced issues accessing and utilising suitable healthcare (Henderson & Kendall, 2011). Older Afghani participants indicated that access to healthcare services to be particularly troublesome as their children were required to be absent from school to act as untrained interpreters. It was further found that these individuals would go so far as simply forgoing healthcare appointments if their children could not accompany them (Henderson & Kendall, 2011).

Sudanese individuals perceived their health beliefs and cultural values to be disrespected by doctors when expressing the need for traditional healing methods in conjunction with orthodox medicine. HCPs were said to be unwilling to integrate, recognise, or respect their traditional health beliefs. This ethnocentrism influences HCPs behaviours and service delivery methods (Abalos-Fabia et al., 2019).

Healthcare providers

Effective communication between HCPs and clients has significant benefits for HCPs. Benefits include the ability to work at a more rapid pace, reaching a more accurate diagnosis, and less stress and burnout. This may potentially elevate their levels of job satisfaction (Penn & Watermeyer, 2018a). In situations where language barriers cannot be successfully overcome, HCPs may be unable to work efficiently or provide holistic treatment (van den Berg, 2016).

In a systematic review of 12 international studies on the learning experiences of CALD nursing students within clinical environments, it was found that at the onset of clinical placements, nursing students found it difficult to adapt to cultural differences (Mikkonen et al., 2015). Language barriers were specifically indicated as an impediment that could not be dealt with successfully without major frustration, panic, embarrassment, and isolation. These emotions

adversely affected their confidence and levels of perceived competence. As a result, students felt they required additional time to adjust to the cultural and linguistic diversity within their working environments.

In South Africa, similar findings were reported for occupational therapy students (Holland et al., 2012) and newly graduated speech-language therapists (Singh et al., 2015). Holland et al. (2012) specifically found language and culture to be internal determinants for professional confidence in occupational therapy students, as they expressed decreased levels of confidence when required to communicate in a language other than their home language during consultations. This corresponds with the fact that the ability to use one's language of choice is considered empowering (Kathard et al., 2011). Similarly, Australian speech-language pathologists experienced feelings of incompetence and decreased levels of confidence when dealing with linguistically diverse clients, ultimately affecting the efficacy of the healthcare service delivered (Guiberson & Atkins, 2012).

Professional competence is connected to professional confidence, both of which play an important role in forming a professional identity (Holland et al., 2012). This is even more relevant for a profession, such as audiology, that is contingent on effective communication (Crawford et al., 2017). It can thus be inferred that when an HCP encounters a situation where a common language is not shared or understood during the consultation, there is a high likelihood that the experience would be largely negative for all involved.

Healthcare institutions

Healthcare institutions benefit from effective communication in terms of economic savings and abiding by their compulsory ethical and legal duty of equality of healthcare service delivery (Penn & Watermeyer, 2018a).

Cultural and linguistic diversity impact healthcare institutions in several ways. Thriving healthcare systems are aware that it is essential to employ and retain employees that are reflective of the communities they serve (Salisbury & Byrd, 2006). Diversity within organisations and institutions brings many benefits, such as financial gain, increased creativity, and better problem-solving abilities (Eswaran, 2019). Institutions with a diverse staff complement outperform those without, as this helps build resilient and efficient organisations (Eswaran, 2019).

2.5 Hearing health equality in South Africa

While the discussions outlined in preceding sections dealt with client's perspectives, the medical students and graduates, nurses, and some allied HCPs, similar conclusions can be drawn for healthcare services related to hearing, vestibular functioning, and communication.

2.5.1 Hearing healthcare in South Africa

Audiologists in South Africa must be registered with the HPCSA (Moonsamy et al., 2017). Audiologists can practice in a variety of settings, such as education, health (public and private), industries, and academic institutions (Stach, 2010). The HPCSA informs and regulates the training and practice of the speech, language, and hearing professions. The HPCSA's Professional Board for Speech, Language, and Hearing Professions stipulates that clients receive

culturally and linguistically appropriate speech-language therapy and audiology services (HPCSA, 2019).

As of April 2020, 2231 audiologists and dually-qualified speech therapists and audiologists (STAs) were registered with the HPCSA (HPCSA, 2020). Within this contingent, the home language of most is, reportedly, Afrikaans or English (Barratt et al., 2012; Khoza-Shangase & Mophosho, 2018; Pascoe et al., 2017). Most clients thus do not receive speech-language therapy and audiology services in their home language, as most speak the other official languages (GCIS, 2019b).

2.5.2 Challenges in hearing healthcare equality

Several factors contribute to the lack of equality in the provision of hearing health services in South Africa. Firstly, there is a severe shortage of hearing health professionals (such as audiologists and otorhinolaryngologists) in the country (Mulwafu et al., 2017). Compared to the United Kingdom, sub-Saharan Africa has significantly lower coverage for hearing health services (Mulwafu et al., 2017).

Secondly, globally, as in South Africa, gender disparity exists as the speech-language and hearing profession remains highly feminised (du Plessis, 2018; Khoza-Shangase & Mophosho, 2018; Litosseliti & Leadbeater, 2013; Pascoe et al., 2017) with females accounting for 94.6% of the speech-language and hearing profession (Pillay et al., 2020).

Thirdly, there is a lack of cultural and linguistic diversity in the profession. It was found that in 2011, only 5% of speech-language and hearing professionals had an African language as their home language (SASHLA, 2011). Since then there has been a significant transformation, especially in the public healthcare sector. In 2019, there was a total of 487 speech, language, and hearing professionals who worked in the public healthcare sector (Health Systems Trust, 2019).

Of these, the majority were African (48.67%), followed by Caucasian (24.02%), Indian (20.12%) and Coloured (7.19%). Despite this, the profession still has a significant way to go to ensure that it is more representative of the population it serves. A recent study found that when considering the speech-language and hearing profession as a whole, Caucasian individuals made up 59.7% of the profession (Pillay et al., 2020).

Lastly, available hearing healthcare resources are generally not contextually or linguistically relevant, as most resources are only available in English or Afrikaans. Language is the biggest challenge to contextually appropriate resources (Pascoe & Norman, 2011).

2.5.3 The importance of cultural and linguistic competence to the audiologist

Audiologists must strive to improve communication with all clients that have been subjected to a lack of service delivery in the past (HPCSA, 2019). It is therefore encouraged that clinical interactions should always be conducted in a language and communication mode that the client understands or are proficient in (HPCSA, 2019). The Health Professions Act 56 of 1974 (Government Gazette, 2014) state that audiologists must be able to provide a range of clinical services to clients and their families, regardless of their age, linguistic and cultural background.

Audiologists use a comprehensive battery of audiological and vestibular tests to assess the auditory and/or vestibular systems of clients. The first, and most important step, is the case history which is used to determine the possible causes of a client's auditory and/or vestibular disorders, and to select the appropriate clinical testing to be pursued (Stach, 2010). In instances where language barriers preclude a comprehensive case history and diagnostic hearing assessment; audiologists are often forced to exclude certain assessment procedures. The cross-check principle states that no audiological test result may be used in the diagnosis of a hearing

loss unless corroborated by one or more independent measures (Hall, 2016). While audiologists are aware of this principle, assessment procedures are occasionally omitted due to language barriers.

Audiologists frequently omit speech audiometry as an audiological test procedure when faced with language barriers (Vicente et al., 2019) or lack of linguistically relevant resources. Speech testing is an integral part of an audiologist's arsenal of diagnostic testing and is used for measurement of the threshold for speech, the cross-checking of pure-tone sensitivity, the quantification of suprathreshold speech understanding for the indication of retro cochlear disorder, differential diagnosis, and estimation of communicative function (Stach, 2010).

Informed consent is another major concern in language incongruent situations. The HPCSA (2016a) states that HCPs should respect client autonomy to establish trust, by giving sufficient information in an understandable manner to allow clients to exercise their right to make informed decisions. Audiologists take ear impressions for the manufacturing of ear moulds and remove cerumen or foreign objects from external ear canals. These procedures involve the use of potentially dangerous objects in the ear canal (e.g. the use of an instrument such as an alligator forceps or curette to remove excessive cerumen) that risks injury such as bleeding, infection, or discomfort within the ear canal (Krouse et al., 2017). Should an audiologists' instructions before the commencement of these procedures, not be correctly understood the client may physically react in a manner that may result in the injury of the ear canal or perforation of the tympanic membrane. If audiologists are not able to adequately inform clients about the risks associated with these procedures, it could result in perceived fear and decreased confidence by audiologists.

Audiologists are also responsible for the management, treatment, prevention, and education of hearing-related problems. Examples include the provision of appropriate hearing amplification devices, auditory (re)habilitation, tinnitus management, counselling, and client education (American Speech-Language-Hearing Association [ASHA], 2020). In all these interactions, linguistic understanding is of paramount importance.

2.5.4 Impact of cultural and linguistic diversity on audiologists

The focus of the audiology profession is the relationship between auditory impairment and its impact on communication. To determine this association audiologists must identify, assess, diagnose, treat and manage clients with impairments relating to aural and/or vestibular function (South African Association of Audiologists [SAAA], 2019; Stach, 2010). Since most services audiologists provide chiefly depend on dialogue with their clients (Crawford et al., 2017), these associations cannot be made in the absence of effective communication.

2.5.4.1 Impact on audiologists' perceived confidence and self-reported competence

Cultural and linguistic diversity pose several difficulties for professionals. These difficulties manifest as the inability to obtain comprehensive case histories, ascertain the main complaints of clients, and provide effective psycho-social support and client education (van den Berg, 2016). There is also evidence proving that HCPs experience negative emotions, such as feelings of incompetence and deflated confidence, when faced with cultural and linguistic barriers (Guiberson & Atkins, 2012; Holland et al., 2012; Mikkonen et al., 2015; Singh et al., 2015; Van den Berg, 2016).

Current discussions on the effects of cultural and linguistic diversity in healthcare pertain mainly to the perspectives of clients, nurses, and doctors; with very little research on the effect on allied medical professionals such as audiologists. There is substantial evidence that it is also important to investigate and consider the experiences of audiologists in South Africa, irrespective of their home language or culture (Guiberson & Atkins, 2012; Holland et al., 2012; Mikkonen et al., 2015; Singh et al., 2015).

When an audiologist, or any other HCP, is faced with a situation where a common language is not shared or understood during the consultation, the definitive experience will be negative for both the client and the HCP. This will ultimately result in sub-optimal service delivery.

2.6 Strategies to negate the impact of CALD

Along with the challenges that accompany cultural and linguistic diversity, come opportunities. The ability to interact with clients from CALD backgrounds is essential for audiologists working in South Africa. The following solutions have been proposed to mitigate these challenges: (i) transformation of the audiology and speech-language therapy profession; (ii) utilisation of translators and interpreters; and (iii) preparing HCPs for practice in CALD settings (e.g. undergraduate training and continuing professional development [CPD] courses).

2.6.1 Transformation of the speech-language and hearing profession

The training for and practice of audiology and speech-language therapy have existed in South Africa since 1936, at which time both professions were rooted in colonial and Western types of service delivery (Moonsamy et al., 2017). Based on a new constitution, South Africa

began a transformation journey in 1994 to uproot apartheid policies and build political, social, and economic justice for all (Moonsamy et al., 2017).

Some researchers argue that the transformation of the audiology and speech-language therapy profession will alleviate the restricted hearing health access presented by lingual-cultural differences within the South African population (Barratt et al., 2012; Khoza-Shangase & Mophosho, 2018). It is suggested that recruiting and training a CALD workforce will assist in delivering equitable, appropriate and acceptable care to South Africa's diverse population.

The South African government and universities are aware of the need for transformation and have made efforts to rebalance student acceptance into relevant training programs (Barratt et al., 2012; Khoza-Shangase & Mophosho, 2018). Universities have also implemented policies to ensure an appropriate proportion of applicants are drawn from disadvantaged communities. Since 1994, significant achievements have been made in the training and practice of audiology, including more multilingual graduates and a transformed curriculum (Moonsamy et al., 2017). These efforts have led to the incremental production of a culturally and linguistically varied audiology workforce.

2.6.2 Interpreters

The provision of equitable and quality healthcare is comprised of 'overlooked' language barriers (Hussey, 2013). A formal and structured process must be followed to solve the issue of language barriers impacting effective communication (HPCSA, 2019). When the provision of healthcare is not available in the clients' or HCPs' language of choice, the use of a trained interpreter is a good alternative. Interpreters transpose spoken or signed communication from

one language to another (Riquelme & Rosas, 2009). They do not only interpret word-by-word but also convey the emotions and tone of the original message (Mophosho, 2016).

To mitigate against issues caused by language barriers in healthcare settings, the Policy on Language Services (2011) for the Department of Health advocates for the employment of trained translators or interpreters to act as mediators (Barratt et al., 2012; Department of Health, 2011). This policy publicly declares the Department of Health's approval and support of the use of interpretation services in the public healthcare sector, acknowledging the significance of language in healthcare consultations.

Despite this legislation; formal training, regulation and availability of interpreters is limited in South Africa (HPCSA, 2019). As trained interpreters are often not available, medical professionals are forced to make use of untrained or ad hoc interpreters to provide linguistic assistance during healthcare interactions (Barratt et al., 2012; Hunter-Adams & Rother, 2017; Van den Berg, 2016).

Although the use of trained interpreters is preferred above the untrained, there are advantages and disadvantages of using either approach. Untrained or ad hoc interpreters (often family members of the clients, cleaning staff, other clients, or children) are generally readily available, easily accessible, and do not incur a financial cost. Their use, however, poses concerns regarding the breach of client confidentiality, client autonomy, informed consent, interpretation error, and unfamiliarity with medical terminology (Hunter-Adams & Rother, 2017; Hussey, 2013; Van den Berg, 2016; Watt et al., 2018). Other than HCPs, ad hoc interpreters are not forced to abide by ethical principles such as ensuring client confidentiality. As they oftentimes consider their confidentiality to be threatened, clients also tend to withhold full disclosure when faced with ad hoc interpreters (HPCSA, 2016b).

Using a child as an untrained interpreter is particularly troublesome as children may have insufficient emotional faculty to assist in the role of interpretation (HPCSA, 2019). Children may not have adequate knowledge of medical terminology and be incapable of translating details and concepts relating to human anatomy, which raises concerns about their ability to gain informed consent (Finlay et al., 2017). Interpreting may also raise emotional distress for children. Giving a child this responsibility means they may have to give ‘bad news’ to their parents and they may be given the unreasonable burden of keeping ‘secrets’ to maintain confidentiality (Finlay et al., 2017).

International research has found the use of trained interpreters to raise the quality of care and level of client satisfaction for healthcare users with restricted English proficiency to approximate that of healthcare users without language barriers (Benjamin et al., 2016; Jacobs et al., 2006; Karliner et al., 2007; Ribera et al., 2013; Tribe & Tunariu, 2009). Despite this, the use of trained interpreters is also not without issue.

Some HCPs consider the use of trained interpreters as time-consuming as they are rarely available to render their services (Guiberson & Atkins, 2012; Van den Berg, 2016). It has also been reported that trained interpreters sometimes impose their own views, make inaccurate interpretations and wrongfully augment conversations with their own knowledge (Van den Berg, 2016). Communication through an interpreter, regardless if they are trained or untrained, will never be as gratifying as direct communication between client and HCP (Eamranond et al., 2011).

All South Africans, whether indigenous or foreign-born, should be treated equally and in a manner that respects their human rights. This implies the provision of healthcare services in every client’s language of choice, whether via an HCP or trained interpreter.

While the services of trained interpreters ultimately offer viable recourse when dealing with language barriers during healthcare consultations, it may prove to be an unfeasible solution due to the sheer number of languages spoken in South Africa and the cost of these services (Swartz et al., 2014).

The current study will explore this topic further when describing South African audiologists' use of translators and interpreters when providing audiological services.

2.6.3 Training to facilitate cultural-and-linguistic competence

When weighed against more pressing concerns facing the health system, health communication across cultural and linguistic barriers continues to be a low priority in low-and-middle-income countries such as South Africa (Hunter-Adams & Rother, 2017; Pascoe et al., 2013; Van den Berg, 2016). As resources are limited, health concerns such as human immune deficiency virus (HIV) and tuberculosis (TB) are considered a priority in developing countries like South Africa (Mayosi & Benatar, 2014). As a result, not enough consideration and resources are allocated to the development and implementation of solutions to improve health communication across cultural and linguistic barriers. Subsequently, the opportunity to address many overlooked health conditions and spare the health system assorted monetary costs are missed.

The South African government has made an effort to address historic inequalities through the initiation of an assortment of health reforms that aim to achieve equal healthcare for the entire population (Penn & Watermeyer, 2018b). The National Health Act (Act 61 of 2003) states that 'the healthcare providers must, where possible, inform the user in a language that they understand and in a manner that takes into consideration the user's level of literacy' (Republic of

South Africa, 2004, p. 20). This act is further emphasised by the National Patients' Rights Charter, which stipulates that healthcare and health information should be accessible to clients in a language that they understand (Van den Berg, 2016). While this seems to be a tacit acknowledgement that the South African Government recognises the legality and importance of language in healthcare communication, it remains trivialised.

In serving a diverse society with true cultural competence, clinicians should be equipped with the necessary knowledge and skills to deal with the difficulties presented by cultural and linguistic diversity in the workplace. This viewpoint is supported by professional bodies such as the South African Speech-Language-Hearing Association (SASLHA) which concur that audiologists should communicate with diverse cultures in a manner that displays sensitivity, patience and knowledge (SASLHA, 2011). This can be achieved through undergraduate and workplace training programs, learning an additional language, as well as participating in relevant CPD activities.

Cultural competence is an acquired skill that entails the acknowledgement of personal bias and the mastering of attitudes, behaviours and beliefs that prohibit one from interacting with confidence and compassion towards clients who may be 'different' (Behar-Horenstein et al., 2017). An inherent part of cultural competence is cultural humility, which is a lasting responsibility to self-evaluate and the formation of clinical and advocacy relationships with populations that are mutually favourable and non-paternalistic (HPCSA, 2019). It is postulated that there is a gap in speech-language and hearing professionals' knowledge due to a hegemonic lack of diversity (Khoza-Shangase & Mophosho, 2018).

To augment cultural competence, material that bolsters cultural and linguistic proficiency within a South African context should be taught in speech-language and hearing professionals' undergraduate programs (Khoza-Shangase & Mophosho, 2018). Research conducted by Hammond, Mitchell, and Johnson (2009) championed the need for speech-language pathology graduates to possess, at a minimum, an entry-level of cultural competence. They found that the development of cultural competency was obscured by a lack of CALD clients in clinical practicum. Providing services to diverse clients during clinical practicum can aid in developing cultural competence through authentic learning experiences. University programmes should, therefore, be urged to develop strategies for increasing the number of CALD clients students encounter in clinical practicum. Such would allow students to work with CALD clients in an observed and safe environment.

An example of a successful programme is the compulsory graduate course for speech-language therapists focusing on cultural and linguistic diversity, developed by the San José State University Department of Communicative Disorder and Sciences. This programme includes nine workshops that focus on prominent languages and cultures in the area, counselling families from CALD backgrounds and working with interpreters and translators (Quach & Tsai, 2017). To arm the course with contextual relevance, workshop selection is made according to the ethnic makeup of the area. Presenters are also culturally and linguistically native to the areas, thus increasing authenticity. The course was found to yield highly successful outcomes (Quach & Tsai, 2017). These findings undoubtedly support the need to develop and implement a similar undertaking within audiology programs offered at South African universities.

To achieve cultural responsiveness adequate knowledge about diverse people, their histories and cultures are required (IAHA, 2015). CPD courses and workplace training covering

the fundamentals encompassed by the graduate course, offer another alternative to assist qualified South African audiologists to develop cultural sensitivity. Language discord has a discernible impact on how clients, their families and caregivers receive information (Mophosho, 2017). Language barriers should be eliminated in the healthcare context, as it is a crucial step towards the provision of culturally competent and PCC (Ali & Watson, 2018). To alleviate the negative effects of language barriers, researchers suggest that HCPs should learn to speak the language of their clients (Van den Berg, 2016). Having the ability to communicate with clients in the clients' language could assist HCPs to achieve linguistic competency, as it builds respect, trust and rapport between providers and clients (Van den Berg, 2016). This suggestion seems unpractical, as there are too many languages spoken in South Africa.

A possible solution to acquire the ability to effectively communicate in an African language would be to extend the current one-semester African language module offered in some undergraduate programmes to a compulsory four-year module for all audiology students in South African universities. This is important as extensive time and dedication is required to master an unfamiliar or new language (Eaton, 2011).

2.7 Theoretical framework: Cultural Responsiveness Capability Framework

The Cultural Responsiveness Capability Framework underpins the study. To improve health outcomes for all, healthcare systems and providers should strive toward being more responsive to CALD populations. Cultural responsiveness is a strategic method of responding to people within the context of their cultural background (Babacan & Gill, 2012). Cultural responsiveness holds culture as central to health and wellbeing, is person-and-community

orientated, values diversity between groups and societies, and requires adequate knowledge about diverse people, their histories and cultures (IAHA, 2015).

As it pertains to healthcare, cultural responsiveness refers to healthcare that is considerate of the health beliefs and practices of diverse individuals, as well as their culture and linguistic requirements (Department of Health and Human Services, 2009). Being a culturally responsive HCP encompasses having the capability to respond to the healthcare issues of diverse people.

2.7.1 Principles of cultural responsiveness

Four guiding principles underpin a Cultural Responsiveness Framework. The first principle is the right to receive high-quality healthcare independent of a person's language, culture, ethnicity, beliefs, or religious background (Department of Health and Human Services, 2009). Health equity is embedded in this principle, as all individuals should have their healthcare needs equally met, irrespective of their language, culture, and religion.

The second principle, an awareness that improving healthcare for CALD persons is a result of comprehending the links between language, ethnicity and cultural background, recognises that individuals' perceptions of wellbeing, health and healthcare experiences are significantly influenced by their culture (Brach & Fraser, 2000; Johnstone & Kanitsaki, 2006; Kleinman et al., 1978). In becoming culturally competent and understanding how implicit and explicit cultural variables affect these aspects, improved healthcare could be the outcome.

The third principle confirms that rooting the healthcare systems in cultural responsiveness will reduce imbalances in health outcomes that are intensified by cultural, linguistic and religious differences. Cultural diversity should be accounted for by developing

governance structures and policies embedded in cultural responsiveness (Department of Health and Human Services, 2009).

The last principle states that the delivery of culturally responsive healthcare will be enhanced by encouraging participation of CALD consumers, carers and communities. CALD consumers, carers and communities face many barriers to healthcare access and achieving optimised health outcomes. Health services should work together with consumers to familiarise themselves with and understand the experiences of culturally and linguistically diverse communities to ensure satisfactory service delivery and health outcomes (Department of Health and Human Services, 2009).

These principles can be linked to the South African Bill of Rights, the cornerstone of democracy in South Africa that enshrines the rights of all people, and affirms the democratic values of human dignity, equality and freedom (Department of Justice and Constitutional Development, 2017). The rights of South Africans to have access to healthcare services and to use the language of their choice is enshrined in the Bill of Rights (Department of Justice and Constitutional Development, 2017). These rights form the basis of the cultural responsiveness framework principles, as all should have access to quality healthcare, irrespective of one's language and culture of choice.

The 'Guidelines for practice in a culturally and linguistically diverse South Africa' developed by the HPCSA in 2019 also mirrors the principles of the cultural responsiveness framework. It stipulates that the speech therapy and audiology professions are obligated to ensure their service delivery is unvaryingly responsive to the linguistic and cultural backgrounds of the people they serve. This document sets out its own five principles that similarly reflect the ambition of cultural responsiveness, namely: (i) providing contextually relevant services within

the professions' scope of practice; (ii) assessment and intervention should take into account the influence/impact of culture and linguistic diversity; (iii) training, clinical practice and research should reflect and value local knowledge; (iv) the cultural competence and humility of clinical educators and their critical consciousness of linguistic and cultural diversity is key to the development of future clinicians; and (v) development of cultural humility and a critical consciousness regarding culture and language is vital for speech-language therapy and audiology curricula and as a lifelong development process for all professionals.

The HPCSA guideline acknowledges the challenges presently hindering the rendering of culturally and linguistically appropriate speech-language therapy and audiology services in South Africa. These challenges stem from cultural and linguistic misalignment and the sluggish pace at which this misalignment is being addressed.

2.7.2 IAHA Cultural Responsiveness Capability Framework

Indigenous Allied Health Australia developed the 'Cultural Responsiveness Capability Framework' in 2015, intending to provide equitable access to healthcare and improved life outcomes for CALD individuals in Australia. This framework has value for application in other CALD countries such as South Africa. This framework will be used to guide the discussion and conclusion in the current study. The central tenet of this framework is: "What do we need to know, be and do to be culturally responsive?" (IAHA, 2015, p. 12). Six key capabilities are outlined in *Table 1*.

Table 1*IAHA Capabilities (IAHA, 2015)*

Capabilities	Description
Respect for the centrality of culture	Care should be person-centered and contextually relevant to people's family, community and culture. Holistic healthcare should be provided and appreciate the cultural values and diversity of people. Culture is acknowledged and appreciated as central to individuals' and communities' wellbeing and prosperity.
Self-awareness	This capability refers to the constant expansion of self-knowledge by understanding personal beliefs, morals, perceptions, attitudes and expectations, and how this could impact interpersonal relationships with diverse people. The outcome of this capability would be healthcare experiences and services free from overt and furtive racism and discrimination.
Proactivity	Being proactive entails having the ability to predict challenges and institute change to ensure the best possible outcomes, i.e. act instead in advance, rather than react. The outcome of the 'Proactivity' capability could be healthcare free from institutional discrimination delivered by institutions that prioritise cultural responsiveness as a core element of their operations.
Inclusive engagement	Inclusion will reduce barriers and create participation opportunities for diverse people. This capability encourages active engagement of diverse people and communities in collaborative and inclusive decision making. This engagement facilitates such diverse people feeling respected and included in relationships with HCPs.
Leadership	Leaders should inspire others and actively promote health transformation that takes cognisance of diverse individuals, their families and communities. The desired outcome of this capability is an increased number of individuals wanting to contribute toward this transformation to facilitate healthcare access to appropriate, affordable and acceptable care for diverse people.

Responsibility and accountability	This entails the duty to monitor improvement and address inequities present between individuals and communities. Guided by social justice and human rights principles, being responsible and accountable could lead to continuously improved outcomes for diverse people.
-----------------------------------	---

2.8 Summary

This literature review provides evidence that South African audiologists and other HCPs are mainly inhibited from communicating effectively during healthcare consultations as a result of cultural and linguistic diversity within the country. Effective communication between HCPs and clients is fundamental to PCC and is beneficial to clients, HCPs and health institutions. Cultural and linguistic diversity impacts the quality of healthcare provided to the South African citizenry as the healthcare workforce is not demographically representative of the population. Language barriers may negatively affect service delivery efficiency and ultimately client outcomes and quality of care.

Cultural and linguistic diversity was also observed to have adverse effects on the competence and confidence levels of HCPs. A cultural responsiveness framework was proposed, as healthcare systems and healthcare providers become more responsive to CALD populations, will improve health outcomes for all. Consideration should be given to the experiences of audiologists providing services to diverse clients in a politically charged South African society. To achieve a culturally and linguistically competent audiology workforce within South Africa: constructive and practical solutions need to be developed and implemented.

Chapter 3: Methodology

3.1 Introduction

This chapter provides a detailed description of the research aims, design and phases. Participant selection and description are discussed, as well as the research measures used. Ethical considerations together with aspects that pertain to validity, reliability, rigor and data collection and analysis are described.

3.2 Research aims

3.2.1 Main aim

To describe South African audiologists' experiences of providing services to a culturally and linguistically diverse population.

3.2.2 Sub-aims

The main aim was achieved by the following sub-aims:

- a) To describe South African audiologists' use of translators and interpreters when providing audiological services to clients speaking a different language from their own

- b) To describe South African audiologists' perceived competence in providing audiological services to clients from different cultures and clients speaking a different language from their own
- c) To describe South African audiologists' perceived confidence in providing audiological services to clients from different cultures and clients speaking a different language from their own

3.3 Research design

The research study employed a mixed-method, sequential explanatory research design to achieve the aims of the study.

Mixed-method research is an approach to inquiry that merges both quantitative and qualitative forms of research (Venkatesh et al., 2013). For this study, neither a quantitative nor a qualitative approach would have been sufficient if used in isolation. A mixed-methods approach assisted in obtaining a complete picture of the phenomenon under investigation (Creswell, 2014d; Venkatesh et al., 2013). Quantitative research is a means of researching by examining the relationship between different types of variables and produces numerical data which can be analysed with statistical procedures (Creswell, 2014d). In contrast, qualitative research aims to comprehend a phenomenon by exploring the meaning individuals ascribe to a social or human problem (Creswell, 2014d). It places the focus on frequency, duration, or intensity of behaviour and enables the researcher to investigate values, beliefs and motives that clarify the reason for these behaviours (Castleberry & Nolen, 2018).

A sequential explanatory design was used as outlined in *Figure 1*. This design involves the collection of data in two distinct phases (Ivankova et al., 2006). In the first phase, quantitative data was collected using an online survey, followed by quantitative data analysis. This was followed by a second phase in which data was collected using semi-structured interviews. The qualitative phase facilitated the explanation, and elaboration of the results obtained in the first phase (Creswell, 2014d).

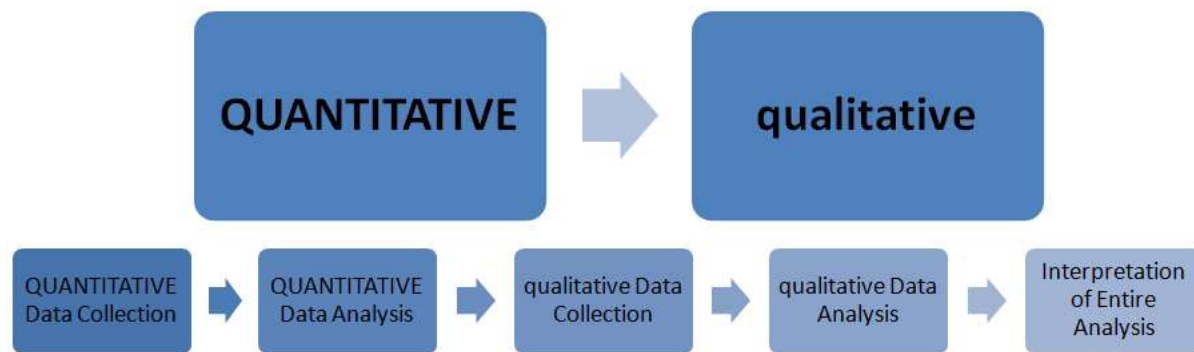


Figure 1. Schematic representation of a sequential explanatory design (Creswell, 2014a, p. 270)

3.4 Research context

This study was conducted in South Africa's hearing healthcare context with audiologists employed in the following contexts: public and private healthcare, education, academia, industry, and not-for-profit organisations. A total of 2231 individuals are registered as audiologists (AUDs) and speech therapists and audiologists (STAs) in South Africa (HPCSA, 2020).

The home language of the majority of speech-language and hearing professionals in South Africa is either Afrikaans or English (Barratt et al., 2012; Khoza-Shangase & Mophosho, 2018; Pascoe et al., 2017). This despite the fact the home language of 79.7% of the South African population is not English or Afrikaans (GCIS, 2019b). It is thus evident that South African hearing healthcare services are provided across language barriers.

3.5 Pilot study

A pilot study is an imperative stage in the research process. A pilot study is a small-scale study to pre-test research instruments, participant sampling, and research procedures in preparation for a larger or main study (Hassan et al., 2006). The objectives, materials and equipment, procedures, results, and recommendations of the two pilot studies (online survey and semi-structured interview) conducted for this study are presented in *Table 2* and *Table 3*.

Table 2*Objectives, materials, procedures, results and recommendations from the pilot study - Online survey*

Online survey				
Objectives	Materials and equipment	Procedures	Results	Recommendations
1 To estimate the time taken to complete the survey by using the average completion time of participants	Online survey and a digital timer	After completion of the online survey by the three participants, their completion times were averaged.	The average time to complete the online survey was 15 minutes.	The completion time was changed on the participant information sheet from 7 to 15 minutes.
2 To determine the practicality, the layout and the flow of the survey	Online survey	After participants completed the survey, their responses were reviewed to identify obvious errors in the survey.	Additional questions and information were required.	A compulsory informed consent question was added to the survey. Additional information was added to the end of the survey encouraging participants to share the survey with other South African audiologists, to allow for snowball sampling as described in the research methodology.
3 To refine the survey questions by identifying ambiguous and vague questions	Online survey	Participants were requested to identify questions they found vague or difficult to understand.	All participants understood the survey questions and did not request any clarification.	No amendments were required.
4 To determine participants' understanding of the terminology used in the survey questionnaire	Online survey	Participants were requested to report any terminology not understood.	Participants had sufficient knowledge and understanding of the terminology used in the survey to answer all questions.	No amendments were required.

Table 3*Objectives, materials, procedures, results and recommendations from the pilot study – Semi-structured interview*

Semi-structured interview				
Objectives	Materials and equipment	Procedures	Results	Recommendations
1 To estimate the time taken to conduct an interview by using the average completion time of participants	Interview questionnaire and a digital timer	The time it took to complete the interviews were recorded and averaged.	The average time to complete the interview was 30 minutes.	The completion time was amended on the participant information sheet from 45 minutes to 30 minutes.
2 To determine the practicality, the layout and the flow of the interview	Interview questionnaire and a digital recorder	After both participants completed the interview, their responses were reviewed to identify obvious errors in the interview.	Two questions combined the concepts of untrained and trained interpreters and did not accurately measure what it intended to.	These questions were split into two questions, to better measure perceived confidence and competence with the assistance of a trained interpreter and an untrained interpreter separately. Selected probing questions were adjusted to obtain information that better represents the study's research aims.
3 To refine the interview questions by reviewing participant responses and identifying ambiguous and vague questions	Interview questionnaire and a digital recorder	Participants were requested to report questions they found vague or difficult to understand.	Some questions required repetition and clarification.	Basic question wording was altered to make questions easily understandable and to reduce the need to repeat or clarify confusing questions.
4 To determine participants' understanding of the terminology used in the semi-structured interview questionnaire	Interview questionnaire and a digital recorder	Participants were requested to report terminology not understood.	The terms interpreter and translator, and linguistic and cultural diversity were used interchangeably. Uncertainty was present regarding terms. Definitions and additional information were required.	Definitions for both interpreter and translator; trained vs. untrained will be provided before the start of the interview. Participants will be told to clearly distinguish between linguistic-and-cultural diversity.

All participants in the pilot study met the selection criteria as outlined for the main study. Data collected from the pilot study participants were not included in the analysis for the main study.

Before the pilot study, the survey questionnaire was reviewed by an STA with 31 years' experience in a variety of work contexts. The online survey was completed by three female participants. Two of the participants were employed within the public healthcare sector as community service audiologists, and one in private practice. Participants worked in three different provinces, namely Gauteng, Mpumalanga and KwaZulu-Natal, with two working in a rural context and one in an urban context.

The semi-structured interview questionnaire was completed by two participants. Both participants were female and worked in the Western Cape Province. The first participant, employed in a public sector hospital, was multi-lingual. The second participant was bilingual and employed in private practice.

3.5.1 Summary

The pilot study provided the researcher with detailed information to achieve the objectives thereof. The estimated completion times were established, and additional questions, definitions and information were included to suit the research aims and methodology.

3.6 Main study

3.6.1 Participants

3.6.1.1 Sampling strategy

Three different non-probability sampling strategies were used to recruit participants. In the first phase of the study, total population sampling and snowball sampling were used to recruit participants. Total population sampling, a purposive sampling method, was used to recruit HPCSA registered AUDs and STAs. This sampling strategy targets the entire population that meets set criteria such as qualifications, specific expertise and experience (Etikan et al., 2016). Snowball sampling was also used to identify individuals from a specific population, as difficulties were foreseen in recruiting a representative sample. Participants who completed the online survey were asked to identify other potential participants and distribute the online survey link to them (Cohen & Arieli, 2011; Handcock & Gile, 2011).

Maximum variation sampling was used in the second phase of the study to recruit participants that were culturally and linguistically diverse. This sampling method was beneficial for the current study, as it aimed to recruit candidates across a broad spectrum relating to the phenomenon of interest (Etikan et al., 2016). In this case, diversity in language and the number of languages spoken, culture, and work environment as it delivered broader perspectives and insights to the researched phenomenon.

3.6.1.2 Participant selection criteria

The participant inclusion criteria for both phases of the study were as follows:

- (i) Individuals registered with HPCSA as either an STA or AUD. This study aimed to include participants that could legally practice audiology in South Africa;

- (ii) A minimum of six months' work experience providing audiological services, as these participants were more likely to have encountered CALD in the work environment;
- (iii) Employed in any setting, including the public and private healthcare sector, educational settings, non-government organisations, and industry;
- (iv) Any culture or home language.

For the second phase of the study, participants were further selected based on the diversity of participants in the first phase of the study. A diverse sample in terms of home language, number of languages spoken, cultures and work environments were recruited.

3.6.1.3 Participant description

Two participant groups were included in the study. Participant group 1 (n_1) comprised 67 individuals who completed the online survey (*Table 4*) and participant group 2 (n_2), five individuals who participated in the second phase of the study (*Table 5*).

3.6.1.3.1 Participant group 1

Most of the participants (95.5%; $n_1 = 64$) were female. This confirms the gender segregation in the speech-language and hearing profession (du Plessis, 2018) which remains highly feminised (Khoza-Shangase & Mophosho, 2018; Pascoe et al., 2017).

Table 4*Participant description: Participant group 1 ($n_1 = 67$)*

Description		Mean	Range (SD)
Age (in years)		30.18	22 – 65 (8.35)
Work experience (in years)		7.67	7 months – 43 years (8.61)
Description		<i>n</i>	%
Gender	Male	3	4.5
	Female	64	95.5
Ethnicity	African	19	28.4
	Caucasian	39	58.2
	Indian	9	13.4
Linguistic ability	Monolingual	7	10
	Bilingual	42	63
	Multi-lingual	18	27
Home language	Afrikaans	25	37.3
	English	23	35.8
	isiXhosa	1	1.5
	isiZulu	3	4.5
	Northern Sotho	4	6
	Setswana	2	3
	Southern Sotho	1	1.5
	Tshivenda	1	1.5
	Xitsonga	6	9
Work context	Public healthcare	36	53.7
	Private healthcare	25	37.3
	Education	1	1.5
	Academic institution	3	4.5
	Unemployed	1	1.5
	Early intervention centre	1	1.5
Work setting	Urban	41	61.2
	Peri-urban	9	13.4

Semi-rural	8	12
Rural	9	13.4

The majority (73.1%; $n_1 = 49$) of participants indicated English or Afrikaans as their home language. This percentage is significantly lower than that reported in a recent study with SLTs where 99% of their sample were English or Afrikaans home language speakers (Mdladlo et al., 2016). No participants indicated SiSwati or isiNdebele as their home languages.

Only 10% ($n_1 = 7$) of the participants were monolingual. Indian participants had the highest monolingual (22.2%; $n_1 = 2$) and lowest multi-lingual rate (11.1%; $n_1 = 1$). In contrast, all African participants were either bilingual (21.1%; $n_1 = 4$) or multilingual (78.9%; $n_1 = 15$). Most Caucasian participants were bilingual (82.1%; $n_1 = 32$), with only 5.1% ($n_1 = 2$) monolingual. The linguistic ability of participants according to ethnicity is depicted in Figure 2.

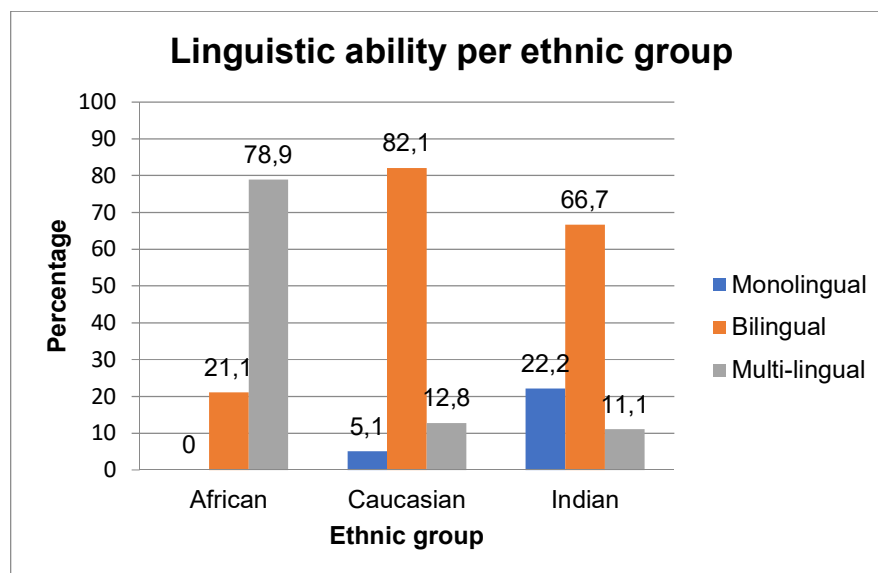


Figure 2. Linguistic ability per ethnic group

Participant's self-reported language comprehension (full or partial) in the areas of reading, writing, speaking, understanding, or a combination thereof are portrayed in *Figure 3*. Most participants (41.8%; $n_1=28$) reported that they understood two languages, followed by 23.9% ($n_1=16$) who reportedly understood three languages. Only 7.5% ($n_1=5$) indicated language comprehension in six or more languages.

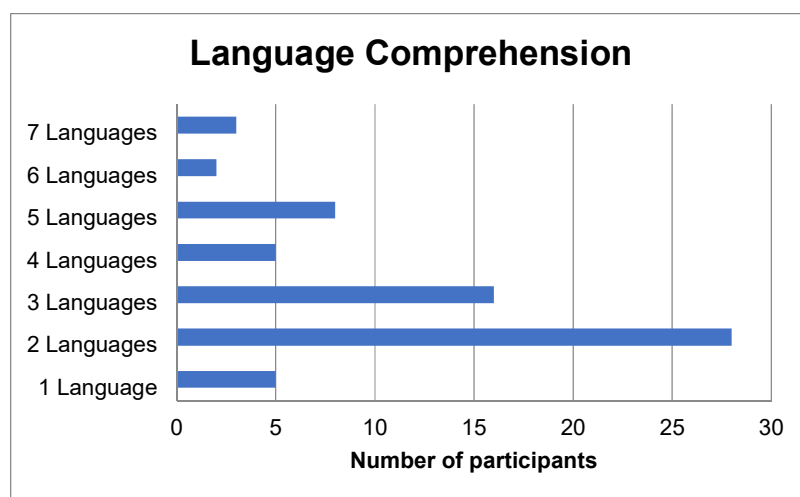


Figure 3. Participants' reported comprehension of different languages

Most participants worked in Gauteng (37.3%; $n_1 = 25$), followed by Limpopo (16.4%; $n_1 = 11$) and the Western Cape (10.4%; $n_1 = 7$).

Concerning training relating to the issues of cultural and linguistic diversity, most participants (56.7%; $n_1 = 38$) indicated that they have previously received training. These participants reported that the cultural and linguistic diversity training was received as part of their undergraduate training (68%; $n_1 = 26$), in-service training, workshops/courses/seminars or conferences (8%; $n_1 = 3$) and the remainder indicated that training was received both at undergraduate level and after graduation (12%; $n_1 = 9$).

3.6.1.3.2 Participant group 2

During the second phase of the study, 20 participants indicated a willingness to be interviewed. Only five participants ($n_2 = 5$) were selected through maximum variation sampling based on race, linguistic ability, province employed in and work context. Participants' ages ranged from 26 – 43 years (mean = 37.0; SD = 6.33). Participants are further described in *Table 5*.

Table 5

Participant description: Participant group 2 ($n_2 = 5$)

Description		<i>n</i>
Gender	Male	1
	Female	4
Ethnicity	African	2
	Caucasian	2
	Indian	1
Linguistic ability	Monolingual	1
	Bilingual	2
	Multi-lingual	2
Home language	Afrikaans	2
	English	1
	Northern Sotho	2
Work context	Public healthcare	2
	Private healthcare	1
	Academic institution	1
	Early intervention centre	1

Home languages were chosen to include an African language, Afrikaans, and English. Ideally, a first language foreign language speaking individual should have been included as a participant, but no such individual participated in the quantitative phase of the research.

Participants were employed in different South African provinces, namely Gauteng ($n_2 = 1$), Limpopo ($n_2 = 2$), Mpumalanga ($n_2 = 1$), and Western Cape ($n_2 = 1$).

3.7 Measures and equipment

Two self-developed measures were employed to achieve the aims of the study; an online survey questionnaire (*Appendix A*) and a semi-structured interview guide (*Appendix B*).

Online survey: The self-developed, structured online survey comprised closed-ended, open-ended, and Likert type questions. Online surveys have the potential to effectively gather large amounts of research data within relatively short timeframes (Regmi et al., 2016). The study aimed to recruit participants across South Africa, which was described as a hard-to-reach population. This challenge was successfully overcome since the distribution and collection of surveys occurred online and did not entail travelling.

The Likert scale is a popular approach to measure experiences and attitudes against set statements in a questionnaire. Scale questions ranged from ‘strongly disagree’ to ‘strongly agree’ and ‘not at all confident/competent’ to ‘extremely confident/competent’. To ensure the avoidance of ‘questionnaire drift’ participants did not have the option of a neutral response (Wilkinson & Birmingham, 2003).

During the development of this survey, relevant national and international literature and research surveys were reviewed. The survey mainly included questions adapted from

Chiuri (2012) and Guiberson and Atkins's (2012) surveys. The survey was divided into two sections: Participant demographic/background information and audiologists' professional perspectives regarding cultural and linguistic diversity (*Table 6*).

Table 6*Description of questions in the self-developed structured questionnaire*

Section	No of questions	Type of questions	Information obtained	Rationale
Demographic information	11	Open and closed-ended	HPCSA registration status, gender, age, ethnicity, province working in, working experience, work setting and context, home language and additional languages.	For statistical purposes and to determine adherence to participant inclusion and exclusion criteria.
Cultural and linguistic diversity training	2	Closed-ended	Whether training was received and where did training occur.	To obtain information on whether training was received on cultural and linguistic diversity issues and where this training was received.
Client languages	18	Open and closed-ended	Client home languages.	To obtain linguistic information relevant to their client caseload.
Cultural and linguistic competence and confidence	12	Likert scale	Perceived competence and confidence in audiological assessment, intervention and counselling.	To determine participants' perceived competence and confidence when providing audiological services to CALD clients.
Translators and interpreters	3	Open and closed-ended	Participants' utilisation of trained and untrained translators and interpreters for audiological assessment, intervention and/or counselling.	To obtain information specific to the participants' utilisation of trained and untrained translators and interpreters.
Cultural and linguistic competence and confidence: interpreter assisting	12	Likert scale	Perceived competence and confidence in audiological assessment, intervention, and counselling with the assistance of an interpreter.	To determine participants' perceived competence and confidence when providing audiological services to CALD clients with the assistance of an interpreter.

Semi-structured interview: A semi-structured interview guide (*Table 7*) was used to conduct face-to-face interviews as part of the second phase of the study. Interviews are used to obtain in-depth information about a topic by collecting information from participants on a one-on-one basis (Wilkinson & Birmingham, 2003). This type of data collection measure allowed the researcher to gain a detailed understanding of the meaning and significance of the situation. The interview questions were somewhat flexible, as it allowed the interviewee sufficient opportunity to shape the flow of information.

Table 7*Description of the semi-structured interview guide*

Section	No of questions	Type of questions	Information obtained	Rationale
Cultural and linguistic diversity in South Africa	1	Open-ended	View on cultural and linguistic diversity in South Africa	To obtain information specific to participants' views on cultural and linguistic diversity in South Africa.
Cultural and linguistic diversity training	3	Open-ended	Past challenges, cultural competence, discrimination in the work environment.	To obtain information specific to participants' experiences with CD (perceived confidence and competence in providing audiological services to CALD clients) in the work environment.
Client languages	11	Open and closed-ended	Discrimination in the work environment, past challenges, audiological procedures, solutions, interpreters, professional confidence, professional competence, curette use.	To obtain information specific to participants' experiences with LD (perceived confidence and competence in providing audiological services to CALD clients) in the work environment.

Two digital audio recorders were used to record the interviews. The primary reason for audio recording the interviews was that it could be transcribed, which provided a written record of the entire conversation (Wilkinson & Birmingham, 2003). This ensured the accurate capturing of information, to increase the credibility and trustworthiness in the study.

3.8 Ethical considerations

Ethics can be defined as the moral principles that govern or influence an individual's behaviour (Hornby, 1995a). The researcher upheld the core ethical standards set out by the HPCSA (2016), the Singapore Statement on Research Integrity (Resnik & Shamoo, 2011), and the Declaration of Helsinki (World Medical Association [WMA], 2013). These standards

provide a comprehensive guide for researchers using human participants during the development and execution of research. The principles outlined in the WMA (2013) are directly related to, and strengthened by, the Singapore Statement on Research Integrity (Resnik & Shamoo, 2011) and the core ethical principles set out by the HPCSA (HPCSA, 2016c). Consideration was given to the following ethical aspects:

- **Ethical committee permission**

The researcher obtained ethical clearance from the Human Research Ethics Committee (non-medical) of the University of the Witwatersrand before the research study commenced (Protocol number: H19/06/08) (*Appendix C*).

- **Permission to conduct the research study**

Written permission was granted by three organisations for the distribution of the survey link via various social media platforms such as Facebook, e-mail distribution list and WhatsApp groups. The organisations include SAAA (*Appendix D*), SASLHA (*Appendix E*), and the National Speech Therapy and Audiology Forum (*Appendix F*).

- **Informed consent**

Obtaining informed consent before participation honoured the autonomy of participants (HPCSA, 2016c). Participants were provided with written information regarding the intent, procedures and risks of participating in the research study. It was clearly stated that participation was voluntary and that they could withdraw from the study by revoking their consent at any stage, without suffering prejudice or punishment. Only participants who gave written informed consent were included in the study (*Appendices G and H*).

- **Confidentiality**

The confidentiality of participants was protected by not using identifying names in the stored research data or the dissertation. If the study leads to scientific publication, data will be

securely retained on a password protected computer for two years, and six years if there is no publication. Following these periods, data will be destroyed accordingly.

- **Anonymity**

The survey results were anonymous as participants were not required to provide identifying information. The nature of face-to-face interviews did not allow for anonymity, but participants' confidentiality was ensured.

- **Non-maleficence**

To uphold the best interests and well-being of participants, the researcher ensured that they were not exposed to physical, emotional, or economic harm and that their human rights were respected.

3.9 Data collection

Once ethical approval from the Human Research Ethics Committee (non-medical) was obtained, data collection was completed in two phases.

In the first phase of the study, permission was obtained from SAAA, SASLHA and the National Speech Therapy and Audiology Forum to distribute the survey link via their associated social media platforms (WhatsApp groups and/or Facebook) and/or email distribution lists to recruit participants. Participants were invited to complete the online survey and willing participants clicked on an electronic link that automatically redirected them to the survey (Google Forms). Informed consent was implied by clicking on the link. The survey link was active for two months, after which data was extracted and stored on an Excel spreadsheet, on a password-protected computer. Data was then analysed using descriptive statistics and ordinal logistic regression.

In the last section of the online survey, participants indicated their willingness to participate in a subsequent interview. Potential participants were then selected utilising maximum variation sampling to ensure diversity in terms of languages spoken, race, gender, and work environment. Selected participants were contacted and provided with a participant information sheet, which indicated that participation is voluntary and confidential, but not anonymous. Only participants who provided written informed consent were included in the study. Five face-to-face interviews were conducted at a time and place most convenient for participants. All interviews were audio-recorded and transcribed. During transcription of interviews, it became evident that certain sounds/words hindered the logical flow of dialogue, therefore the following was occasionally omitted to improve ease of reading without changing the meaning of what was said: ‘umm’, ‘uhh’, ‘err’, ‘like’, ‘you know’, and false starts. Qualitative data was analysed using thematic analysis.

3.10 Validity, reliability and trustworthiness

The process of legitimising research is a crucial step in determining its quality (Wium & Louw, 2018). In a mixed-methods approach, this process is achieved by considering the validity, reliability and trustworthiness of the study.

3.10.1 Validity

Validity refers to the degree of accurate measurement of a concept in a study, in other words, does it measure what it claims to measure (Heale & Twycross, 2015; Noble & Smith, 2015). For this study, content- and-face validity were considered.

Content validity entails a subjective examination of research instruments to determine whether the tools adequately cover the entire domain related to the variable or construct it intends to measure (Heale & Twycross, 2015). Content validity was achieved by reviewing

current literature and available questionnaires as well as consulting with professionals in the field before the development of the two data collection tools.

Face validity is a subset of content validity, where experts' subjective inputs are requested about whether a research instrument measures the intended concept (Heale & Twycross, 2015). In this study, face validity was ensured by an expert in the field reviewing the survey instrument and the semi-structured interview. An audiologist with 31 years' experience in the public-and-private healthcare setting, as well as academia, evaluated the questionnaires

Obtaining valid and reliable results could be accomplished by piloting a survey questionnaire and semi-structured interview (Leendertz, 2013). To further ensure validity and ultimately finalise the survey instrument and semi-structured interview, a pilot study was conducted, which allowed the researcher to review the responses to refine questions.

3.10.2 Reliability

Reliability is the degree to which a research tool measures and produces consistent results (Wium & Louw, 2018).

To obtain reliable research data, the researcher attempted to minimise the Hawthorne effect, which can be described as the phenomenon where research participants alter their behaviour or responses due to the awareness of being observed (Oswald et al., 2014). In an attempt to minimise the Hawthorne effect, participants were reminded that their participation would remain confidential, there were no correct or incorrect answers, and therefore, to provide honest answers.

3.10.3 Trustworthiness

In the seminal work of Guba and Lincoln in the 1980s, for qualitative research, validity and reliability were replaced with the parallel concept of ‘trustworthiness’. Rigor is a vital condition in qualitative research for determining trustworthiness (Morse, 2015). Trustworthiness contains four core aspects to enhance rigor namely, credibility, dependability, transferability, and confirmability (Morse et al., 2002).

Credibility is concerned with the truthfulness of reported research data (Erlandson et al., 1993a). To guarantee the trustworthiness of the current study, a coding system was developed, which is recommended when using semi-structured interviews (Morse, 2015). The coding system was developed after qualitative data was collected and transcribed.

Credibility was further enhanced by considering reflexivity, which plays a crucial role in the research process and outcomes (Berger, 2015; Haynes, 2014). Reflexivity is the critical awareness of the researcher’s positionality and how this ‘position’ affects the research process and outcome, and being aware that the researcher and researched affect each other repeatedly (Berger, 2015; Haynes, 2014). The researcher reflected on her positionality and interpreted results with the awareness that research could be influenced by her own contextual and personal aspects (Alvesson & Skoldberg, 2009).

Interview questions were pre-tested to identify, and correct deficiencies by pre-testing the proposed questions. Pre-testing supported the researcher in removing confusing and vague questions and to generate practical opinions on the construction and flow of the intended interview (Wilkinson & Birmingham, 2003). Credibility was further achieved by employing purposively selected research participants to represent the experiences of a CALD group of qualified audiologists.

To ensure dependability, the researcher kept meticulous records of interviews, including electronic recordings converted into transcripts, and by documenting the data collection and analysis processes in detail.

Transferability, known as validity in quantitative research (Ghafouri & Ofoghi, 2016), is the degree to which results can be applied in other situations or with different participants (Mophosho, 2017). To enhance transferability, the researcher provided detailed information about sampling methods used, participants, research context, data collection methods, and the period of data collection. Additionally, verbatim quotes from interview participants were provided, to clarify the interpretations made by the researcher.

Confirmability in qualitative research relates to the notion of objectivity (Shenton, 2004). To ensure research free from biased procedures and results, all aspects of the research was reviewed by a research supervisor. The researcher also used a digital audio recorder to record interviews, which allowed for transcript verification by peers and/or external evaluators.

3.11 Data analysis

Data was automatically stored and documented by the online measuring instrument on Google Forms, from which data was exported to an Excel spreadsheet for statistical analysis. Data was encoded by the researcher according to data definitions. Analysis of results was performed using a variety of statistical procedures (*Table 8*) using SPSS Statistics software (IBM Corporation, 2019) to ascertain whether a relationship (in the form of a significant association or correlation) exists between audiologists' competence and confidence levels and the following: experience, race, linguistic ability and CALD training.

Correlation is better suited to the study of relationships between continuous variables and does not lend itself to the analysis of categorical data. Given the data being dealt with in this study, the best fit for analysis was ordinal logistic regression.

Audio recordings of interviews were transcribed and analysed using thematic analysis.

Table 8*Statistical analysis completed*

Quantitative analysis	
Statistical procedures	Rationale application to the study
Descriptive statistics: -Measure of central tendency (mean) -Measure of spread or variability (range and standard deviation)	Descriptive statistics are valuable for the initial analysis of results (Salkind, 2009). This type of data analysis method allowed the researcher to calculate, describe, and summarise the data gathered, in a clear, well-organized, and logical manner (Spriestersbach et al., 2009; Vetter, 2017)
Ordinal logistic regression (Proportional odds model)	Ordinal logistic regression is utilised to estimate an ordinal dependent variable, given a set of independent variables (Hosmer et al., 2013). In other words, it allows one to ascertain which independent variables (if any) have a statistically significant effect on the dependent variable. A p -value of $p = .05$ or smaller is considered statistically significant (Ellis & Steyn, 2003; Wasserstein & Lazar, 2016).
Qualitative analysis	
Thematic analysis	Thematic analysis is used to identify, analyse and state themes within data. The process of thematic data analysis allowed the researcher to complete the following five steps (Castleberry & Nolen, 2018; Vaismoradi et al., 2013): • Compiling, which was done by transcribing recorded interviews so that data was visible to the researcher. In this step, data was placed in a consistent and orderly format. • Disassembling, where data was separated into different groups through the process of coding. • Re-assembling, the step by which themes were created by placing codes into context with each other. To integrate the data, thematic hierarchies and matrices were created. • Interpreting, which occurred by means of making analytical conclusions from the data presented thematically. • And ultimately, a conclusion was drawn from the interpretation.

3.12 Summary

The research methodology was described in this chapter. It included the research aims, research context, and a detailed description of the research design and phases. This was

followed by a pilot study, which indicated errors or problem areas in the research instruments, which lead to recommended amendments. For the main study, a detailed description of the participant selection criteria, as well as the research instruments were given. Lastly, data collection, validity, reliability, rigor, ethical considerations, and data collection-and-analysis were discussed.

Chapter 4: Results

The results from both phases of the study will be presented in an integrated manner according to the aims of the study, namely to describe South African audiologists' (i) use of translators and interpreters when providing audiological services; (ii) perceived competence in providing audiological services to clients from different cultures and clients speaking a different language from their own; (iii) perceived confidence in providing audiological services to clients from different cultures and clients speaking a different language from their own.

The qualitative data was collected to supplement the quantitative results. Analysis of interview transcriptions revealed several themes and sub-themes of audiologists' experiences, with the three main themes being: Responsibility, Interpersonal relationships, and Audiology services (*Figure 4*). Verbatim excerpts have been included where appropriate.

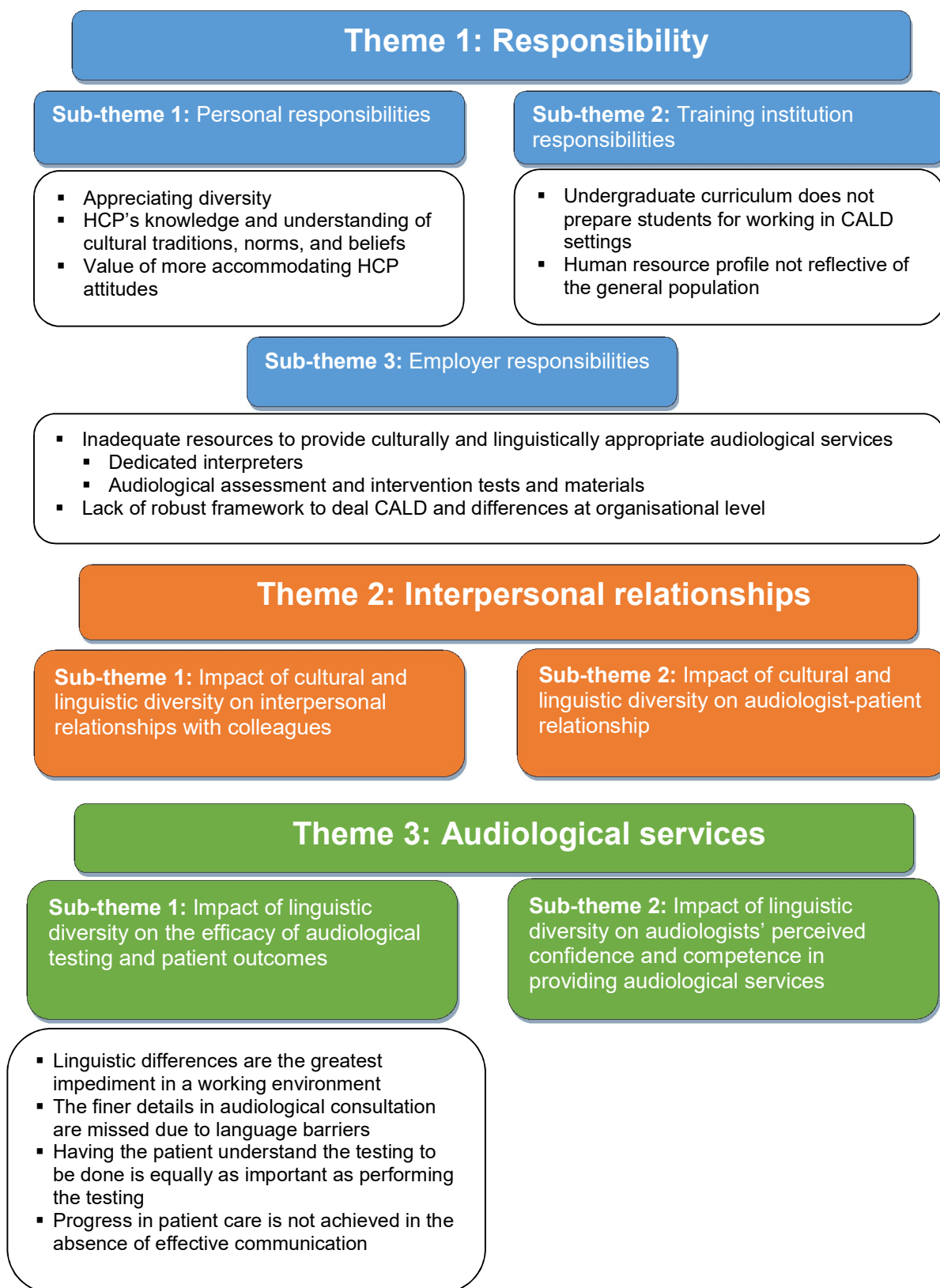


Figure 4. Themes and sub-themes derived from thematic analysis

4.1. South African audiologists' use of translators and interpreters when providing audiological services

Participants were required to indicate whether they made use of translators and/or interpreters when providing audiological services (with more than one option available).

All participants indicated using a translator or interpreter (trained/untrained) in the past year. Most participants ($n_1 = 37$; 55.2%) used a translator or interpreter between 2-5 times in the past year (*Figure 5*).

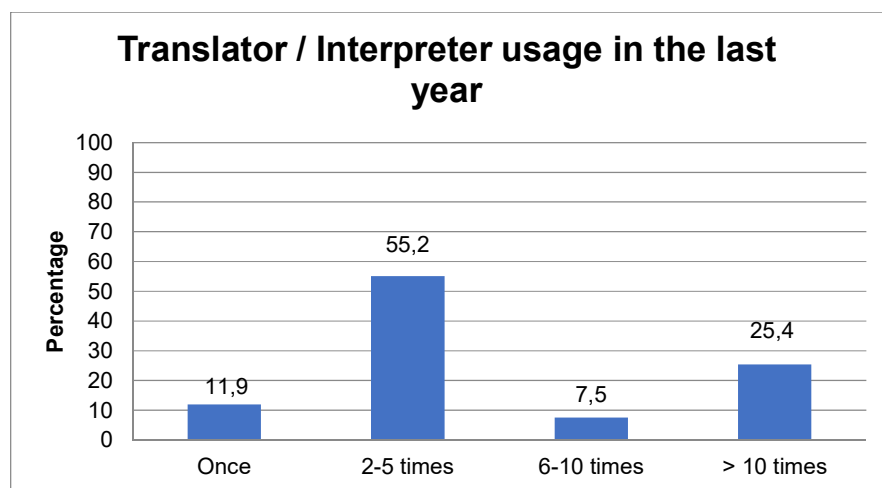


Figure 5. Translator / Interpreter usage in the last year ($n_1 = 67$)

Participants mostly made use of untrained interpreters (70%; $n_1 = 47$) and translators (58%; $n_1 = 39$). Use of trained translators (9%; $n_1 = 6$) and interpreters (15%; $n_1 = 10$) was found to be less common among participants. Untrained interpreters most often included family members of the clients, the staff at the facility, colleagues, and friends of the client (*Figure 6*).

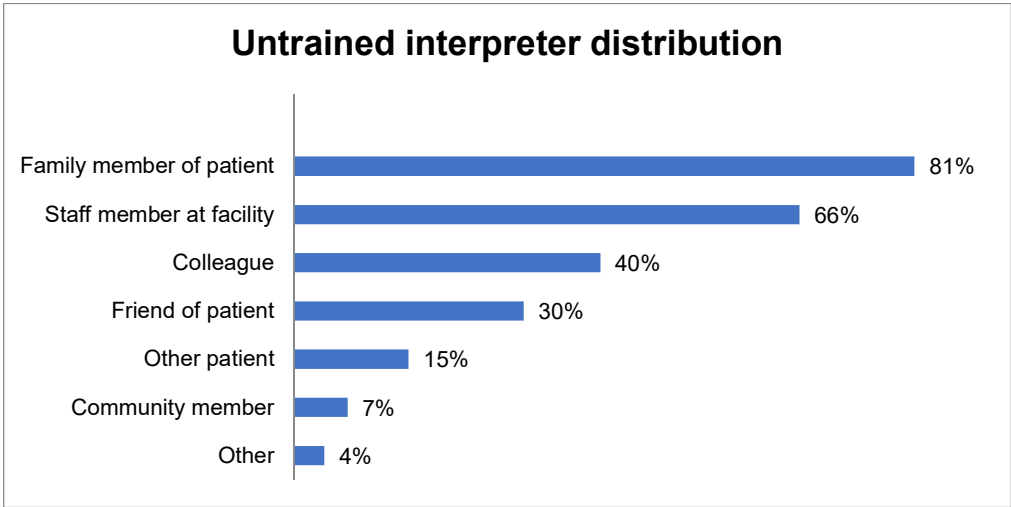


Figure 6. Untrained interpreter distribution as reported by participants

Participants in both private and public healthcare sectors made infrequent use of trained translators or interpreters (*Figure 7*). Untrained translators or interpreters were more frequently used. Of the participants employed in the private healthcare sector, 88% ($n_1 = 44$) mostly used untrained translators and interpreters. In comparison, 85.4% ($n_1 = 35$) of the participants employed in the public healthcare sector used untrained translators and interpreters. These results thus show no major differences between those employed in the two healthcare sectors.

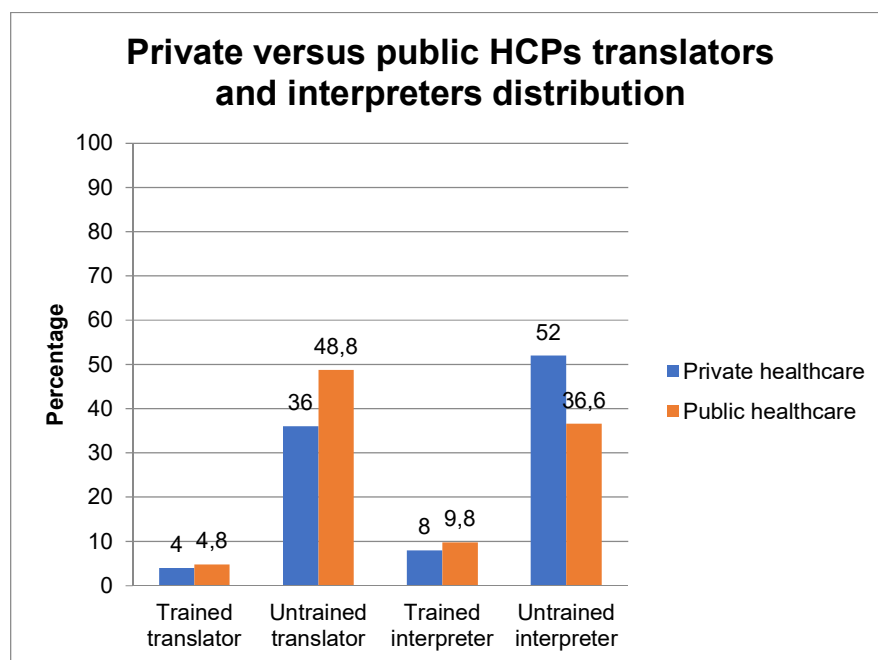


Figure 7. Use of translators and interpreters: Private vs. public healthcare sectors

These findings were supported by participant group 2 during the qualitative phase of the study. Participants indicated that healthcare institutions (private and public) do not provide the necessary resources to enable HCPs to effectively serve CALD clients (Theme 1: Responsibilities – Sub-theme: Employer Responsibilities). To provide effective audiological services in consultations with CALD clients, the use of trained interpreters is recommended. Participant 2 recalled the effect of limited resources in CALD situations in the public healthcare sector:

“There are some patients that maybe go to private, they’re getting better, that not necessarily getting from us at the moment. Because we’re unable to give that full package of care... we’re limited by language, culture to a little bit less, but definitely language.” (P2)

While all participants acknowledged the use of untrained interpreters, trained interpreters were found to be sorely lacking, resulting in various challenges:

“The Shona and the isiXhosa support that I’ve got here at the centre, are not fully trained interpreters. They have not had a course on how to interpret, how to not interpret. But they are all past parents of children who’ve gone through the system and have got a very good idea or understanding about the specific topics that we are talking about here.” (P1)

“... I’m going to talk about the French families because that’s easy. They usually bring their own family member, or a friend of a friend of a friend, or the driver. So that is incredibly difficult.” and “...yes, so I really don’t like it when it’s a family member. I feel that I’m not getting a truthful representation of what is being said or not...” (P1)

“So, you don’t know sometimes, should I now go and search for someone for the next 20-minutes, or should I just try and do this thing with this person. Ja, ja, so I don’t think there was much facilitation in the process for trying to breach that language barrier.” (P3)

Participant 3 stated that untrained interpreters often amend the messages to be given to clients, which according to her is unacceptable. She expressed her frustration with these challenging situations:

“... So, sometimes they’ll take like the lead. You know, you’ll tell them something like: ‘Please tell the patient 1, 2 and 3 and 4’, and then they’ll come in and Ok, like cool, I’m just gonna put 1, 2 and 3 in one big bracket and then just do a little bit of 4 and just give the message, this and this and this, ok cool. That’s that, and you are like no, there’s a reason why I told you all four points. I need you to explain them in that order. And they just like start getting like weird about the whole situation and like not wanting to do it or being off-ish and stuff.” (P3)

The issue of client confidentiality was also raised as a concern. Ad hoc or untrained interpreters are not required to abide by ethical principles aimed at ensuring client confidentiality.

“Sometimes confidentiality is the biggest thing because you don’t know that they know the person’s brother, or sister, or whatever from home. And then they go and tell sometimes. Also, some people speak very loudly... and I feel like it might compromise a patient’s confidentiality...” (P2)

Negative experiences were also reported by participants regarding requesting access to interpreters:

“I thought sometimes I could ask my supervisor, but she was very like stand-offish, very, very stand-offish. She was more into just - do it, you’ll learn – kind of method....” (P3)

4.2. Perceived competence in providing audiological services

The second sub-aim of the study related to HCPs' perceived confidence in providing audiological services. The results will be presented in relation to audiological assessment, intervention, and counselling. Perceived competence was further determined by separating clients from different cultures and clients speaking different languages with and without the assistance of an interpreter.

4.2.1. Perceived competence in providing audiological services to clients from different cultures

Participants were required to indicate their level of perceived competence in the audiological assessment, intervention, and counselling of culturally diverse clients. The four options ranged from ‘not competent at all’ to ‘extremely competent’ (*Figure 8*).

With (78%; $n_1 = 52$) and without (78%; $n_1 = 52$) interpreter assistance, most participants felt either ‘very competent’ or ‘extremely competent’ in the area of audiological assessment of clients from diverse cultures.

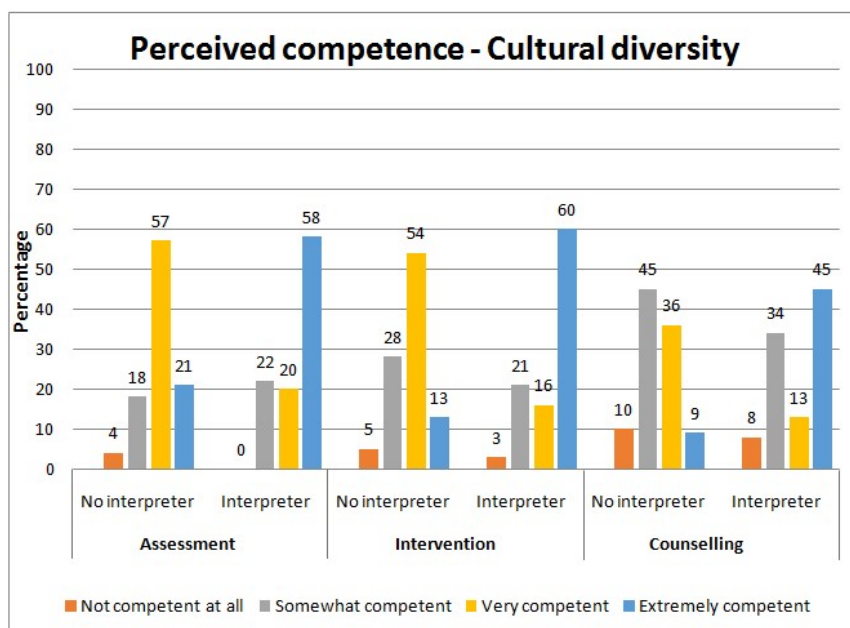


Figure 8. Audiologists' perceived competence in providing audiological services to clients from different cultures ($n_1 = 67$)

When providing intervention to clients from diverse cultures participants' perceived competence was somewhat lower than for audiological assessment. However, participants reported a significant increase in their perceived levels of 'extreme competence' from not using an interpreter (13%; $n_1 = 9$) to when they made use of an interpreter (60%; $n_1 = 40$).

In the area of audiological counselling, most participants indicated not feeling adequately competent without interpreter assistance. With an interpreter present, the 'extremely competent' response drastically increased from 9% ($n_1 = 6$) to 45% ($n_1 = 30$). Participants' perceived competence increased when an interpreter was used in audiology assessment, intervention, and counselling.

These findings were supported by participants who were interviewed. They reported that achieving cultural competence is a matter of experience.

“Things like that I was not familiar with, and you learned with your experience how to address people, what they expect of you. Ja, culturally it takes some adaptation...” (P2)

“I think it depends on your expertise; how much you have dealt with such a patient first of all...” (P5)

Similarly, participant 1 stated the following with regards to understanding the cultural nuances of her isiXhosa clients:

“It really took me five years. I couldn’t understand why the family is saying no to a cochlear implant, because the mom is showing she wants it. And then I realised... then [cultural broker name removed], helped me to understand it’s not the mommy... she can want it, but the granny is making the decision...” (P1)

To determine whether there is an association between perceived competence in providing audiological services to culturally diverse clients with and without an interpreter, individual regression coefficients were tested using the Wald chi-square statistic. Without interpreter assistance, the independent variables analysed were race, linguistic ability (mono-, bi- and multi-lingual), cultural and linguistic diversity training, and work experience (*Table 9*). The variables of race, cultural and linguistic diversity training and work experience were found to have no or little bearing on competence levels when performing statistical analysis without the presence of an interpreter. Therefore, these variables would not materially affect results with an interpreter present and have thus been excluded.

Table 9*Perceived competence in working with culturally diverse clients: Without and with an interpreter*

Factors		β	SE	Wald	df	p	OR	95% CI OR	
								Lower	Upper
Without an interpreter									
Race	African	-.200	.9836	.041	1	.839	.819	.119	5.631
	Caucasian	1.842	.8199	5.047	1	.025*	6.309	1.265	31.467
	Indian	0 ^a	.	.	.	.	1	.	.
Linguistic ability	Monolingual	-3.715	1.2114	9.402	1	.002*	.024	.002	.262
	Bilingual	-3.516	.9359	14.114	1	.000*	.030	.005	.186
	Multi-lingual	0 ^a	.	.	.	.	1	.	.
Cultural and linguistic diversity training received		.517	.5148	1.007	1	.316	1.676	.611	4.597
Work experience		-.002	.0026	.479	1	.489	.998	.993	1.003
With an interpreter									
Linguistic ability	Monolingual	-2.983	1.1273	7.001	1	.008*	.051	.006	.462
	Bilingual	-1.713	.8094	4.479	1	.034*	.180	.037	.881
	Multi-lingual	0 ^a	.	.	.	.	1	.	.

*Statistically significant ($p = \leq .05$)

In terms of race, the odds of Caucasian audiologists displaying higher competence levels when dealing with clients from different cultures without an interpreter were 6.309 times (95% CI: 1.265, 31.467) that of Indian audiologists, which was statistically significant ($p = .025$).

The odds of monolingual audiologists displaying higher competence levels when dealing with clients from diverse cultures without an interpreter were much lower than that of multi-lingual audiologists (OR = 0.024, 95% CI: .002, .262) and was statistically significant ($p = .002$). Similarly, the odds of bilingual audiologists displaying higher competence levels when dealing with clients from diverse cultures were lower than that of multi-lingual audiologists (OR = 0.030, 95% CI: .005, .186), which was statistically significant ($p = .000$).

When using an interpreter, the odds of monolingual audiologists displaying higher competence levels when dealing with clients from different cultures were lower than that of multi-lingual audiologists (OR = 0.051, 95% CI: .006, .462), which is statistically significant ($p = .008$). Similarly, the odds of bilingual audiologists displaying higher competence levels were lower than that of multi-lingual audiologists (OR = 0.180, 95% CI: .037, .881), which is statistically significant ($p = .034$). These odds seem to convincingly indicate that audiologists feel more competent in dealing with clients from different cultures as their linguistic ability (mono vs. bilingualism) improves. Overall, it can be surmised that the presence of an interpreter bolsters the perceived competence levels of mono- and bilingual participants when dealing with clients from diverse cultures.

Work experience and having attended cultural and linguistic diversity training were statistically insignificant, indicating that these factors are not associated with increased competence levels in dealing with clients from different cultures.

Participants who were interviewed provided some solutions to the challenges faced by audiologists when working with culturally diverse clients. These participants suggested that the responsibility lies with training institutions to prepare undergraduate students to work in culturally diverse settings for example clinical placements in CALD settings and cultural competence seminars or workshops.

“I think they could definitely have that sort of talk – a weekly talk - where they have different people coming in that can say this is patient interaction, this is how it works, this is the things that you should look away from. Like eye contact, what does it mean for Black people, what does it mean for an older Black person. I think that they can definitely have that kind of workshop.” (P3)

The importance of a culturally diverse student body to help facilitate cultural competence was also raised.

“I think it’s important that the student group in itself should be diverse. It helps if you are a student and you are studying with people from different cultures...” (P1)

4.2.2. Perceived competence in providing audiological services to clients from different linguistic backgrounds

Participants were required to indicate their level of perceived competence in the audiological assessment, intervention, and counselling of linguistically diverse clients. The four options ranged from ‘not competent at all’ to ‘extremely competent’.

Figure 9 describes participants' perceived competence with and without interpreter assistance when providing audiological assessment, intervention, and counselling to linguistically diverse clients.

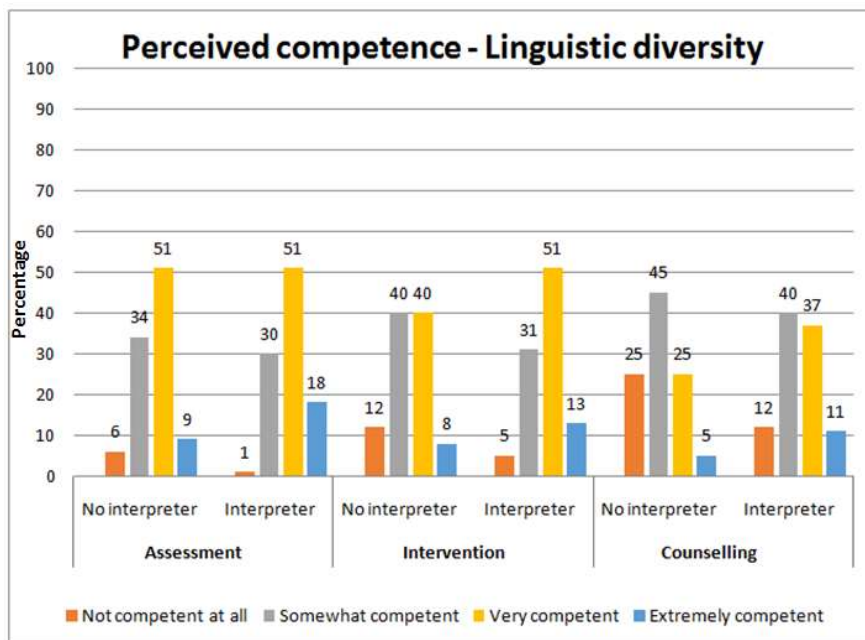


Figure 9. Audiologists' perceived competence in providing audiological services to clients from different languages ($n_1 = 67$)

When performing audiological assessments with clients with diverse linguistic backgrounds with no interpreter present, more than half (60%; $n_1 = 40$) of participants indicated that they felt either 'very competent' or 'extremely competent'. With interpreter assistance in a similar situation, this percentage only increased by 9%, indicating that interpreter assistance did not have a major effect on participants' perceived competence in performing an audiological assessment.

As for intervention with clients with diverse languages, it is evident that interpreter assistance increased participants' perceived competence. Without interpreter assistance 48% ($n_1 = 32$) of participants felt either 'very competent' or 'extremely competent'. With interpreter assistance, this percentage increased by 16%.

The majority (70%; $n_1 = 47$) of participants did not feel competent in audiological counselling without interpreter assistance. Even with an interpreter present, more than half (52%; $n_1 = 35$) of participants still did not feel 'very competent' or 'extremely competent' in audiological counselling. This leads to the assumption that providing audiological counselling across language barriers negatively impacted most participants' perceived competence, with or without the assistance of an interpreter.

To determine whether there is an association between the perceived competence in providing audiological services to linguistically diverse clients without and with an interpreter, individual regression coefficients were tested using the Wald chi-square statistic (*Table 10*). Without interpreter assistance, the independent variables analysed were race, linguistic ability (mono-, bi- and multi-lingual), cultural and linguistic diversity training, and work experience. The variables of race, cultural and linguistic diversity training and work experience were found to have no bearing on competence levels when performing statistical analysis without the presence of an interpreter. Therefore, these variables would not materially affect results with an interpreter present and have thus been excluded.

Table 10*Perceived competence in working with linguistically diverse clients: Without and with an interpreter*

Factors		β	SE	Wald	df	p	OR	95% CI OR	
								Lower	Upper
Without an interpreter									
Race	African	.116	.9851	.014	1	.906	1.123	.163	7.745
	Caucasian	.937	.7966	1.383	1	.240	2.552	.535	12.160
	Indian	0 ^a	.	.	.	.	1	.	.
Linguistic ability	Monolingual	-4.762	1.2379	14.800	1	.000*	.009	.001	.097
	Bilingual	-2.769	.8802	9.896	1	.002*	.063	.011	.352
	Multi-lingual	0 ^a	.	.	.	.	1	.	.
Cultural and linguistic diversity training received		.547	.4971	1.209	1	.271	1.727	.652	4.576
Work experience		.001	.0025	.086	1	.769	1.001	.996	1.006
With an interpreter									
Linguistic ability	Monolingual	-2.506	1.1220	4.987	1	.026*	.082	.009	.736
	Bilingual	-2.187	.8310	6.926	1	.008*	.112	.022	.572
	Multi-lingual	0 ^a	.	.	.	.	1	.	.

*Statistically significant ($p \leq .05$)

According to *Table 10*, linguistic ability is a significant predictor of increased competence levels when dealing with linguistically diverse clients without an interpreter. The odds of monolingual audiologists displaying higher competence levels when dealing with linguistically diverse clients were much lower than that of multi-lingual audiologists (OR = 0.009, 95% CI: .001, .097), a statistically significant effect ($p = .000$). Likewise, the odds of bilingual audiologists displaying higher competence levels when dealing with linguistically diverse clients were lower than that of multi-lingual audiologists (OR = 0.063, 95% CI: .011, .352), a statistically significant effect ($p = .002$).

When using an interpreter, the odds of monolingual audiologists displaying higher competence levels when dealing with linguistically diverse clients was lower than that of multi-lingual audiologists (OR = 0.082, 95% CI: .009, .736), which is statistically significant ($p = .026$). Similarly, the odds of bilingual audiologists displaying higher competence levels than that of multi-lingual audiologists (OR = 0.112, 95% CI: .022, .572), which is statistically significant ($p = .008$). These odds seem to convincingly indicate that audiologists feel more competent in dealing with clients speaking different languages as their linguistic ability (mono vs. bilingualism) improves. Overall, it can be surmised that the presence of an interpreter bolsters the perceived competence levels of mono- and bilingual participants when dealing with linguistic diverse clients.

According to *Table 10*, the odds of an increase in work experience, having attended cultural and linguistic diversity training, or different racial backgrounds, were statistically insignificant, indicating that these variables are not predictors of increased competence levels in dealing with clients from different linguistic backgrounds.

The findings of the semi-structured interviews support these findings. Participants relayed negative feelings regarding competence when dealing with linguistically diverse clients:

“I felt almost incompetent like I am not able to do my job, or I am not able to help this person as they need help. So, you sit there and they have tinnitus and you try to explain to them that it is more a psychological thing, but you don’t have the right words to use to help them understand what you are trying to say.” (P3)

Participants indicated that training institutions do not adequately prepare undergraduate students for their actual working environments and the linguistic barriers they may face:

“.... We do not learn another language, especially the Black languages. And if you think about our public hospitals, our greatest population is not speaking English. It’s reality, it’s here to stay, so I think maybe curriculum changes or things like that. We need to incorporate the fact that we are treating people that are not speaking the same language as us.” (P2)

While all participants indicated objective testing (otoscopy, tympanometry and acoustic reflexes) could be effectively performed in the presence of a language barrier, the same could not be said for subjective procedures and testing such as the compilation of a case history, pure tone, and bone conduction audiometry, masking procedures and speech testing. Participants felt subjective procedures and testing required at least some degree of linguistic understanding between them and the client to ensure effectiveness.

Participants considered speech audiometry particularly challenging as validated wordlists are not available in all 11 official languages. The pronunciation of words could also

be troublesome for non-native speakers. They further highlighted that current speech audiometry practices are not contextually and linguistically relevant.

“... So it means each language has to have an individual who studies further, who does like masters and comes up with like standardised tests for each particular language... because if you get one standardised test for Sotho, it doesn't mean it will apply for Sepedi, or for Xhosa, etc. So, it is a big challenge...” (P4)

Participants also expressed a need for a resource that encompasses basic audiology terminology in all official languages.

“But I think that the resource one is quite important, cause often, you have a lot of people being like Hey do you have the Zulu list for like all the hearing aid parts? You know, cause those parts don't change. The instructions for how to insert a hearing aid don't change. Troubleshooting doesn't change. So, if you could have a resource, I think that'll also be like the first step where you can get that in school already.” (P3)

Participants expressed concern for language mismatch between clients and providers and the challenges they faced in past instances due to this mismatch:

“But if the system remains as it is presently, particularly at least in the Western Cape, where a lot of the healthcare is provided by English/Afrikaans speaking people with limited access to other languages, even though the people who are accessing the services are not English/Afrikaans first language speakers. Things need to change.” (P1)

“English was my first language, school, varsity, everything. But when you land here, Afrikaans for me was a different culture, a different language, so I had to learn that. And then never mind all the Black languages as well.” (P2)

It became evident from participant group 2 that communication barriers stemming from the workforce not being reflective of the population are not limited to Caucasian or Indian audiologists, but also affects African audiologists:

“I usually would try and check if the nearest hospital has someone who can help. If there is not someone, I saw with our sign language patients, there is someone at OT that we usually call to come and help. So, even here, I would call at least our supervisor here who knows Tsonga, of which the patients are common here. So, I would call him in to give instructions to help.” (P4)

“So, when I was in KZN, I found that I could understand what they were saying because my mother is Ndebele and also just from picking up because I am good at languages. Also, I have a basic understanding what people are saying and I could understand my patients, but when I have to speak to them, that was when it was an issue...” (P3)

Under the Audiological service's theme, it became clear that linguistic differences are the greatest impediment in an audiological working environment. This theme became evident, as all participants gave detailed descriptions of various events in which language differences posed limitations to their functions as audiologists’:

“... Unfortunately, between myself and the interpreter, we don’t know that the person didn’t get a certain message. I’d say somewhat because I feel that we are getting better, we’ve definitely made an improvement. But there are always the cases that we miss, or somebody didn’t get the full message like we want to give them. Ja, it’s gotten better.” (P2)

“... When I have to get into the fundamentals of aural rehab, or tinnitus management or dizziness case history, that was the most challenging, that was very challenging. After consultation, it was rare that I felt good about it, and it was rare that I felt like I had a clear vision of what I was going to do in terms of going forward with the management plan...” (P3)

“So it’s a big challenge, but for the kids, it’s worse, it’s bad. Because when you give therapy, you are limited when you assess, when you use therapy, you are very limited. You can do something, but you are very limited. And they can say some things and you miss very important aspects. Maybe you are doing colours and they say a colour in their language, you don’t understand. You don’t know whether it’s a colour. You don’t know if there is miss-pronunciation or if it is said correctly...” (P4)

“... If I think of when we are working with patients, if I am working directly with a patient and I’m explaining something in English, I often feel it’s difficult to explain difficult concepts to a patient if I cannot explain it to them in their own language. If I have to simplify it in English or if they do speak Afrikaans even if I have to simplify it in Afrikaans that it’s difficult for them to understand what I’m explaining to them.” (P5)

Progress in client care is not achieved in the absence of effective communication. The focus is on the association between auditory impairment and communication disorder.

Participants experienced difficulty, and often times a complete inability, to perform certain management procedures such as hearing aid fittings and aural rehabilitation.

Participants also acknowledged that in the absence of linguistic understanding the expected client outcomes would be less than desirable, especially where children are concerned:

“It will obviously be poor. It will be poor. Should I fit the child? I don’t know... Should the child come to Cape Town for support? They have decided from everything in Africa, this is the best place they want to come to, with the uncle that’s never around. Should the child be fitted? I don’t know. It’s not right. So, there’s pros and cons to whether or not one should, I feel, should offer services if you are not competent in either providing the service or competent in communicating with the family. Particularly working with kids. I think it’s different with adults. I think somehow, you can kind of understand one another, you

can use Google Translate, you know, there's all those ways, but I have found with kids it's difficult.”(P1)

“You automatically know it's not going to be great. The outcomes, the benefits that the patient is gonna derive from the hearing aid itself. And then especially if they need aural rehab and we are unable to provide it at all, or if we don't have the language. So, I feel like you spend a lot of money on a hearing aid, you fit, might be three, four thousand, and if the patient doesn't know they need batteries that are costing R20, then that machine is as good as useless.” (P2)

“I think the patient outcomes become drastically poorer. With my inability to do firstly, aural rehab with the patient. And also, with general usage of the hearing aid, especially for children when you can't communicate with the mom about why it's important for you to practice listening skills and for you to make sure your child is wearing the hearing aid. To do a hearing aid check yourself to make sure the battery... All of that...”(P3)

“... The outcomes are bad because particularly the kids, they become delayed. There is speech delay, so, which is the major part, there will be language learning problems. So, the challenge is particularly the more you don't get help and the earlier you don't get help, then you are left behind.”(P4)

Although the assistance of an interpreter was shown to boost the perceived competence levels of participants to some degree, a participant from the qualitative phase explained that using untrained interpreters negatively impacted the perception of her competence:

“... Because although you know what you're supposed to do you know what everyday your job is, whatever it is... you're only as good as the link that the interpreter is providing...” (P2)

4.3. Perceived confidence in providing audiological services

The results will be presented in relation to participants' perceived confidence in providing audiological services (assessment, intervention, and counselling). Perceived confidence was further determined by separating clients with different cultures (*Table 11*) and clients speaking different languages (*Table 12*). Results are also presented in relation to these services provided with the assistance of an interpreter or not.

4.3.1. Perceived confidence in providing audiological services to clients from different cultures

Participants were required to indicate their level of perceived confidence in audiological assessment, intervention, and counselling with culturally diverse clients. The four options ranged from 'not confident at all' to 'extremely confident'.

Figure 10 describes participants' perceived confidence with and without interpreter assistance when providing audiological assessment, intervention, and counselling to culturally diverse clients.

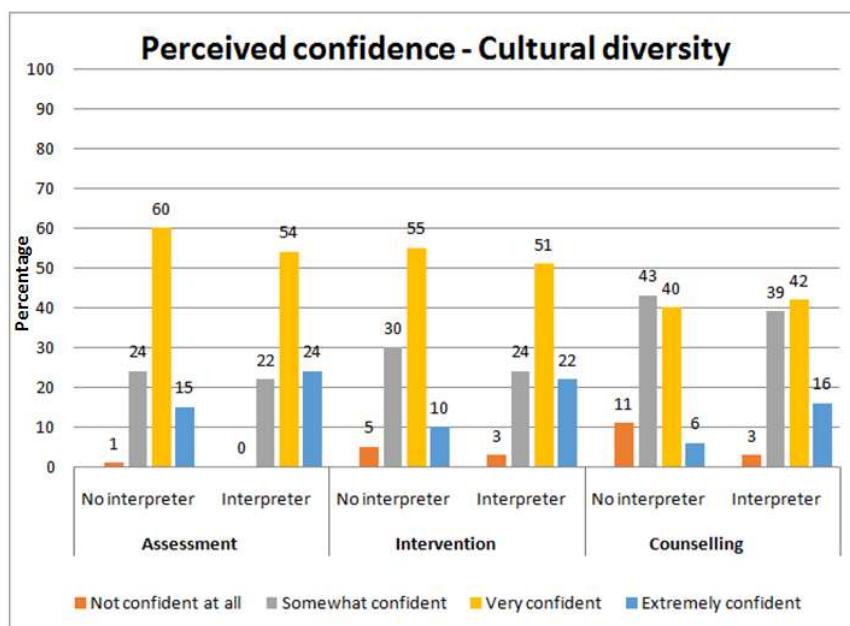


Figure 10. Audiologists' perceived confidence in providing audiological services to clients from different cultures ($n_1 = 67$)

The majority (75%; $n_1 = 50$) of participants felt 'very confident' or 'extremely' confident in audiological assessment with clients from different cultures without an interpreter assisting. Similarly, with interpreter assistance, 78% ($n_1 = 52$) felt 'very confident' or 'extremely confident'. This shows that most participants felt confident in this situation with or without an interpreter.

When considering participants' perceived confidence when providing audiological intervention to clients from diverse cultures, the majority (65%; $n_1 = 44$) felt 'very confident' or 'extremely confident' without interpreter assistance. With interpreter presence, 'extremely confident' responses more than doubled with interpreter presence, from 10% ($n_1 = 7$) to 22% ($n_1 = 15$).

More than half of the participants indicated that they did not feel adequately confident when providing audiological counselling to clients from diverse cultures without an

interpreter. With an interpreter present participants' confidence increased, as less than half now perceived decreased confidence.

To determine whether there is an association between the perceived confidence in providing audiological services to culturally diverse clients without and with an interpreter, individual regression coefficients were tested using the Wald chi-square statistic. Without interpreter assistance, the independent variables analysed were race, linguistic ability (mono-, bi- and multi-lingual), cultural and linguistic diversity training, and work experience. The variables of race, cultural and linguistic diversity training and work experience were found to have no bearing on confidence levels when performing statistical analysis without the presence of an interpreter. Therefore, these variables would not materially affect results with an interpreter present and have thus been excluded.

Table 11 demonstrate that an increase in work experience, having attended cultural and linguistic diversity training, or different racial backgrounds, were not predictors of increased confidence in dealing with clients from different cultural backgrounds.

The odds of monolingual audiologists displaying higher confidence levels when dealing with clients from diverse cultures much lower than that of multi-lingual audiologists (OR = 0.022, 95% CI: .002, .236), a statistically significant effect ($p = .002$). Likewise, the odds of bilingual audiologists displaying higher confidence levels when dealing with clients from diverse cultures were much lower than that of multi-lingual audiologists (OR = 0.084, 95% CI: .015, .479), a statistically significant effect ($p = .005$).

However, participants dealing with clients from different cultures without an interpreter feel more confident as their linguistic ability (being monolingual and bilingual) improves, as statistical significance is marked with these variables.

Table 11*Perceived confidence in working with culturally diverse clients: Without and with an interpreter*

Factors		β	SE	Wald	df	p	OR	95% CI OR	
								Lower	Upper
Without an interpreter									
Race	African	-.700	.9855	.504	1	.478	.497	.072	3.427
	Caucasian	.684	.7908	.747	1	.387	1.981	.420	9.334
	Indian	0 ^a	.	.	.	.	1	.	.
Linguistic ability	Monolingual	-3.799	1.2008	10.010	1	.002*	.022	.002	.236
	Bilingual	-2.482	.8905	7.768	1	.005*	.084	.015	.479
	Multi-lingual	0 ^a	.	.	.	.	1	.	.
Cultural and linguistic diversity training received		.816	.5263	2.403	1	.121	2.261	.806	6.343
Work experience		-.001	.0027	.262	1	.609	.999	.993	1.004
With an interpreter									
Linguistic ability	Monolingual	-2.506	1.1220	4.987	1	.026*	.082	.009	.736
	Bilingual	-2.187	.8310	6.926	1	.008*	.112	.022	.572
	Multi-lingual	0 ^a	.	.	.	.	1	.	.

*Statistically significant ($p = \leq .05$)

Table 11 shows that with an interpreter; the odds of monolingual audiologists displaying higher confidence levels when dealing with clients from different cultures were still lower when compared to multi-lingual audiologists (OR = 0.082, 95% CI: .009, .736), which was statistically significant ($p = .026$). Similarly, the odds of bilingual audiologists displaying higher confidence levels increased slightly but was lower when compared to that of multi-lingual audiologists (OR = 0.112, 95% CI: .022, .572), a statistically significant finding ($p = .008$).

These odds seem to convincingly indicate that audiologists feel more confident in dealing with clients from different cultures as their linguistic ability (mono vs. bilingualism) improves. Overall, it can be surmised that the presence of an interpreter bolsters the perceived confidence levels of mono- and bilingual participants when dealing with clients from different cultures.

4.3.2. Perceived confidence in providing audiological services to clients from different linguistic backgrounds

Participants were required to indicate their level of perceived confidence in audiological assessment, intervention, and counselling with linguistically diverse clients. The four options ranged from not confident at all to extremely confident (*Figure 11*).

Figure 11 describes participants' perceived confidence with and without interpreter assistance when providing audiological assessment, intervention, and counselling to linguistically diverse clients.

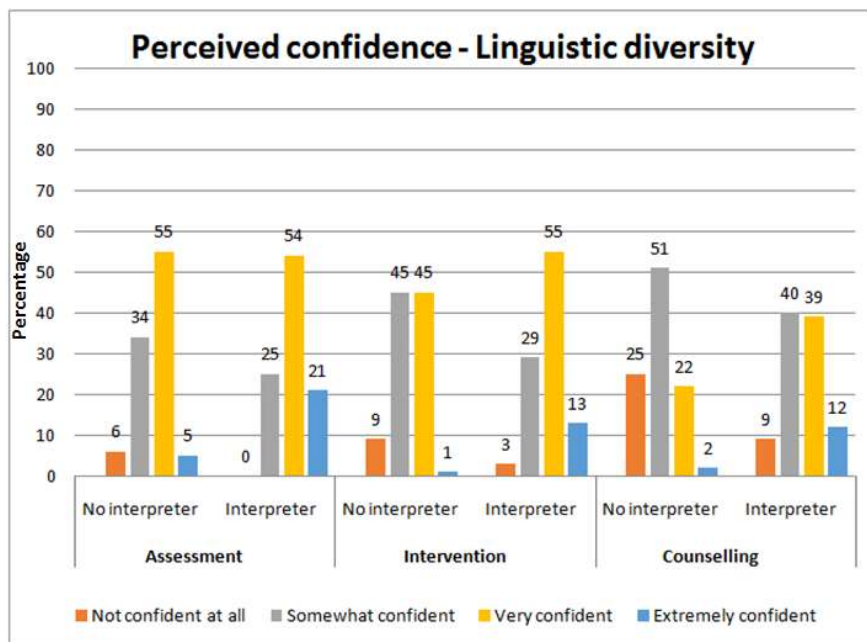


Figure 11. Audiologists' perceived confidence in providing audiological services to clients from a different language ($n_1 = 67$)

The majority of participants felt 'very' or 'extremely' confident in the area of audiological assessment with clients from different languages, irrespective of interpreter assistance. With interpreter assistance, no participant indicated 'not at all' confident in audiological assessment with clients from diverse languages.

Without interpreter assistance, the majority did not feel adequately confident in providing intervention and only 2% ($n_1 = 1$) of respondents indicated that they felt 'extremely' confident. With interpreter assistance, still, only 13% ($n_1 = 9$) of respondents indicated feeling 'extremely' confident.

In the area of audiological counselling with clients from diverse linguistic backgrounds, only one respondent (2%; $n_1 = 1$) perceived them self to be 'extremely' confident without interpreter assistance. The vast majority of participants did not feel

sufficiently confident without interpreter assistance. Without interpreter assistance, 76% ($n_1 = 51$) did not feel sufficiently confident, and with interpreter assistance, 49% ($n_1 = 33$) did not feel sufficiently confident. Although this indicates a 27% ($n_1 = 18$) decrease, 49% still accounts for nearly half of the participants feeling inadequately confident. This leads to the opinion that although interpreters increased the confidence levels of some participants, nearly half still didn't feel sufficiently confident.

To determine whether there is an association between the perceived confidence in providing audiological services to linguistically diverse clients with and without an interpreter, individual regression coefficients were tested using the Wald chi-square statistic. Without interpreter assistance, the independent variables analysed were race, linguistic ability (mono-, bi- and multi-lingual), cultural and linguistic diversity training, and work experience (*Table 12*). The variables of race, cultural and linguistic diversity training and work experience were found to have no bearing on confidence levels when performing statistical analysis without the presence of an interpreter. Therefore, these variables would not materially affect results with an interpreter present and have thus been excluded.

According to *Table 12*, audiologists dealing with linguistically diverse clients more confident as their linguistic ability improves. The odds of monolingual audiologists displaying higher confidence levels when dealing with linguistically diverse clients were much lower than that of multi-lingual audiologists (OR = 0.02, 95% CI: .002, .266), which was statistically significant ($p = .002$). Similarly, the odds of bilingual audiologists displaying higher confidence levels when dealing with linguistically diverse clients were lower than that of multi-lingual audiologists (OR = 0.241, 95% CI: .048, 1.214), a statistically significant finding ($p = .035$).

Table 12*Perceived confidence in working with linguistically diverse clients: Without and with an interpreter*

Factors		β	SE	Wald	df	p	OR	95% CI OR	
								Lower	Upper
Without an interpreter									
Race	African	.488	.9972	.240	1	.624	1.629	.231	11.503
	Caucasian	.285	.7963	.128	1	.720	1.330	.279	6.333
	Indian	0 ^a	.	.	.	.	1	.	.
Linguistic ability	Monolingual	-3.894	1.2284	10.049	1	.002*	.020	.002	.226
	Bilingual	-1.424	.8254	2.975	1	.035*	.241	.048	1.214
	Multi-lingual	0 ^a	.	.	.	.	1	.	.
Cultural and linguistic diversity training received		.265	.5091	.271	1	.602	1.304	.481	3.536
Work experience		-.001	.0026	.069	1	.793	.999	.994	1.004
With an interpreter									
Linguistic ability	Monolingual	-2.488	1.1046	5.075	1	.024*	.083	.010	.724
	Bilingual	-1.233	.7918	2.426	1	.039*	.291	.062	1.375
	Multi-lingual	0 ^a	.	.	.	.	1	.	.

*Statistically significant ($p \leq .05$)

Table 12 indicated that increased confidence in dealing with linguistically diverse clients could not be associated with an increase in work experience, having attended cultural and linguistic diversity training, or different racial backgrounds. These three variables proved to be statistically insignificant.

In the presence of an interpreter; the odds of monolingual audiologists displaying higher confidence levels when dealing with linguistically diverse clients increased, but was still much lower than that of multi-lingual audiologists (OR = 0.083, 95% CI: .010, .724), which is statistically significant ($p = .024$). Similarly, the odds of bilingual audiologists displaying higher confidence levels have increased but was still lower than that of multi-lingual audiologists (OR = 0.291, 95% CI: .062, 1.375), which is statistically significant ($p = .039$). These odds seem to convincingly indicate that audiologists feel more confident in dealing with linguistically diverse clients as their linguistic ability (mono vs. bilingualism) improves. Overall, it can be surmised that the presence of an interpreter bolsters the perceived confidence levels of mono- and bilingual participants when dealing with linguistically diverse clients.

The results obtained from participant group 2 supported and elaborated on these findings. Linguistic diversity negatively impacted these participants' confidence when providing audiological services. Participant 3 expressed emotional consternation when needing to reach out for help because of language barriers:

"... As a Black person, to help me speak to another Black person is also like a wild thing. It's a mountain in its own to overcome, that anxiety to go and ask..." (P3)

She went on to say linguistic diversity also affected her perceived confidence profoundly:

“I think my experience was, for the most part, I think for a good portion of my community service was quite an anxiety-riddled, quite an anxious space. Like when you see a mould coming back, then you know you have to do a hearing aid fitting, and you are stressed out of your mind. You are genuinely stressed, you are like, it involves so much for me to just do a hearing aid fitting. You need to show this patient how to insert the mould into their ears, how to change the batteries, how to look after their hearing aid properly, the proper like, you know, the water stuff, like you know rain and weather and sweat and all of that. It becomes a very stressful process. Even towards the end when my Zulu was much, much better, I wasn't as anxious, but I also wasn't feeling confident about it...” (P3)

In conclusion, some similarities and differences were observed regarding audiologists' perceived confidence levels in providing services to clients who are culturally diverse compared to linguistically diverse.

In the absence of an interpreter assisting, the majority of participants felt adequately confident in providing audiological assessment as well as intervention to culturally diverse clients. Whereas for linguistically diverse people the majority only felt confident in the audiological assessment.

With the assistance of an interpreter, participants' confidence levels increased in all areas (assessment, intervention, and counselling) with both culturally-and-linguistically diverse clients. Although in both situations participants' perceived confidence levels increased with an interpreter assisting vs. without, this increase is more drastic in linguistically diverse situations.

Counselling was the most affected area when faced with cultural as well as linguistic diversity during audiological consultations. Many participants faced with linguistically or

culturally diverse clients, indicated not feeling sufficiently confident in counselling, even with the assistance of an interpreter.

Chapter 5: Discussion

The main focus of the audiology profession is the relationship between auditory impairment and the impact thereof on communication. To determine this association, audiologists identify, assess, diagnose, treat, and manage clients with impairments relating to aural and/or vestibular function (SAAA, 2019; Stach, 2010). The findings of the study confirmed that irrespective of an audiologist's culture or home language, when faced with situations where a culture or common language is not shared or understood during healthcare consultations, the definitive experience will be negative for both the client and the audiologist.

5.1 South African audiologists' use of translators and interpreters when providing audiological services

Linguistic diversity is inherently protected by the South African Constitution (HPCSA, 2019). However, the findings of this study revealed that, regardless of the work context, there are limited trained interpreters and translators available to support audiologists when providing audiological services. Audiologists employed in the public healthcare sector used interpreters and translators more frequently than those employed in the private healthcare sector.

Participants employed in both public and private healthcare alike, most often used untrained interpreters and translators when dealing with CALD clients. These findings were further supported by qualitative data showing all participants to either not have access to formally trained interpreters or not make use of their services.

This confirms the findings of previous research studies conducted in South Africa (Barratt et al., 2012; Hunter-Adams & Rother, 2017; Van den Berg, 2016). These studies confirm that HCPs are forced to make use of untrained or ad hoc interpreters to provide linguistic assistance during healthcare interactions, due to a lack of trained interpreters at healthcare facilities. This is disappointing as the Department of Health's Policy on Language Services already published in 2011 advocates for the employment of trained translators and interpreters to act as mediators in the public healthcare sector (Department of Health, 2011). The HPCSA similarly encourage the formal training and inclusion of interpreters in all healthcare sectors when language barriers restrict interaction (HPCSA, 2019).

As healthcare institutions do not have the necessary interpreter resources required to serve the South African population, audiologists have no choice but to make use of untrained interpreters and translators such as family members, staff members at a given facility, colleagues, and friends of clients. Similar findings were reported by other South African researchers (Hunter-Adams & Rother, 2017; Van den Berg, 2016).

Although we did not explicitly explore in the current study who the family members were, it can be assumed that individuals such as grandparents, parents, siblings, and children were often used. The use of minors for interpretation is especially concerning. Specifically, as (i) they may lack the emotional faculty to assist in the role of interpretation (HPCSA, 2019); (ii) they may not have sufficient understanding of medical terms (Finlay et al., 2017); (iii) they might be unable to translate human anatomy concepts (Finlay et al., 2017); (iv) they may have to be the bearers of 'bad news' and the keepers of 'secrets' to maintain confidentiality (Finlay et al., 2017). It becomes clear that medical interpretation by children may lead to psychological distress on the part of the child.

The findings of the current study also indicate that other clients and community members are used as interpreters in some instances. The ubiquitous use of untrained translators and interpreters is particularly concerning as these individuals are not required to abide by ethical principles such as the preservation of confidentiality (Hunter-Adams & Rother, 2017; Van den Berg, 2016). Confidentiality is the foundation of trust between HCP and client, and without assurances regarding confidentiality, clients are more likely to withhold information that may aid the HCP in building a comprehensive case history (HPCSA, 2016b), resulting in unsatisfactory client outcomes.

The use of untrained interpreters in healthcare settings affect clients' access to healthcare. The performance of healthcare systems revolves around its accessibility (Levesque et al., 2013). Healthcare access is influenced, amongst others, by the acceptability of healthcare services for users which is determined by various factors such as gender, culture, social norms. In instances where healthcare providers and services are not culturally responsive and able to meet clients' cultural and social expectations, equitable healthcare access will not be achieved.

In providing equitable access to healthcare and improved life outcomes for CALD individuals in South Africa, findings on South African audiologists' use of translators and interpreters when providing audiological services should be considered within the Cultural Responsiveness Capability Framework's key capabilities of leadership, being proactive, taking responsibility and being accountable (IAHA, 2015). The leadership at all levels of service (national, provincial, district and facility) should take the responsibility to encourage and monitor the implementation of policies on language services already available. Professional bodies such as the HPCSA should place pressure on the Department of Health, within the context of the NHI, to actively improve acceptability and accessibility of

healthcare in terms of language and culture. At the facility level, although challenging, HCPs should also lobby for the appointment of trained interpreters to ensure that they can adequately address the needs of the clients they serve.

5.2. South African audiologists' perceived competence in providing audiological services to linguistically- and culturally diverse clients

Results indicated that the majority of audiologists' self-reported competence was not greatly affected during audiological assessment and intervention when faced with CALD clients. Cultural and linguistic barriers had the biggest impact on participants' perceived competence in the area of audiological counselling, as the minority felt adequately competent without interpreter assistance. Even with interpreter assistance, less than half felt sufficiently competent providing counselling in linguistically challenging situations. A sub-theme from the qualitative phase strengthens this statement, as it was found that linguistic differences were the greatest impediment in the working environment. These findings correspond with previous research, indicating cultural and linguistic diversity may manifest as the inability of HCPs to provide effective psycho-social support and client education (Van den Berg, 2016).

When comparing assessment vs. intervention vs. counselling with linguistically diverse clients, counselling yielded the lowest perceived competence by participants. This could be due to some parts of assessment and intervention, to some extent, being objective whereas counselling is more subjective and relies predominantly on dialogue. Effective communication is a requisite for dialogue between HCP and client (Crawford et al., 2017).

In comparing how cultural- and linguistic diversity affects audiologists' competence in audiological assessment, intervention, and counselling, it was found that working with linguistically diverse clients invariably showed the lowest perceived competence by

participants with and without interpreter assistance. These findings are similar to previous studies with other HCPs such as nurses (Mikkonen et al., 2015) and speech-language therapists (Guiberson & Atkins, 2012). Nurses indicated that they could not deal successfully with language barriers, as an aspect of diversity (Mikkonen et al., 2015). Similarly, Australian speech-language pathologists reported decreased competence when they worked with linguistically diverse students (Guiberson & Atkins, 2012).

5.3. South African audiologists' perceived confidence in providing audiological services to linguistically- and culturally diverse clients

The results indicated that most participants felt adequately confident in audiological assessment and intervention with clients from diverse cultures with or without interpreter assistance. This is supported by previous research indicating that SLTs felt comfortable providing services to culturally diverse individuals (Guiberson & Atkins, 2012). Similarly, most participants felt adequately confident when providing audiological assessment procedures with linguistically diverse clients with or without interpreter assistance. On the contrary, without interpreter assistance, the majority of participants' confidence in the audiological intervention was lacking.

Audiological counselling proved to be the most challenging determinant of participants' perceived confidence when dealing with CALD clients. Language differences had the most noticeable effect in the area of audiological counselling as few participants felt adequately confident without interpreter assistance. Although a clear increase in confidence was noted with interpreter assistance, still only 50.7% felt adequately confident. This reflects the perception of participants that language barriers affect their provision of audiological

counselling to such a degree that, even with interpreter assistance, they experienced a lack of confidence.

Research studies confirmed that both students and HCPs alike experience difficulty when consulting with clients across language barriers (Guiberson & Atkins, 2012; Holland et al., 2012; Mikkonen et al., 2015; Singh et al., 2015). Decreased confidence was reported by Australian speech-language therapists (Guiberson & Atkins, 2012), South African occupational therapy students (Holland et al., 2012), and newly graduated speech-language therapists (Singh et al., 2015). Decreased levels of confidence when dealing with linguistically diverse clients will ultimately negatively affect the efficacy of the healthcare service delivered (Guiberson & Atkins, 2012).

Research has confirmed that the ability to use one's language of choice during healthcare consultations is empowering (Kathard et al., 2011). In the current study, findings indicate that regardless of culture, race and linguistic ability, working with linguistically diverse clients has a major impact on confidence levels. Participant 3's verbatim quote stood out in this regard:

"...as a Black person to help me speak to another Black person is also like a wild thing... it's a mountain in its own to overcome that anxiety to go and ask..."

This quote creates the perception of an extreme decrease in confidence due to the inability to communicate due to a language barrier and feeling embarrassed to ask help from someone of the same race.

Participants' competence and confidence were most affected when working with linguistically diverse clients. There is a clear link between competence and confidence, as previous research found that their participants lost confidence when feeling incompetent (Holland et al., 2012).

In a country such as South Africa with its 11 official languages, it is impossible for HCPs to effectively communicate with all clients. In South Africa however, although it is not spoken by the majority of the population, English is the primary recognised language for healthcare consultations (Pascoe et al., 2013). In an equitable society, the cultural and linguistic profile of the healthcare workforce would mirror the population within which it operates (Kirmayer & Jarvis, 2019). Although significant strides have been made in the transformation of the audiology profession since 1994, it is evident that transformation should remain a priority.

Transformation should not only focus on the recruitment of a diverse student body, but also the curriculum in terms of additional language courses and cultural competence training. All students should be encouraged to master an additional language to increase their competence in communicating with a linguistically diverse client base. As extensive time and dedication are required to master an unfamiliar or new language (Eaton, 2011), a one-semester additional language module currently offered at some universities are not adequate. Students should be required to take an additional language course to a third-year level.

Although previous research indicated successful outcomes from a graduate course at San José University focusing on cultural and linguistic diversity (Quach & Tsai, 2017), this was not the case in the current study. Having received cultural and linguistic diversity training did not have a statistically significant effect on participants' competence and confidence levels. This perhaps speaks to the nature and quality of the training received at the undergraduate level, at the workplace or as part of CPD. Khoza-Shangase and Mophosho (2018) argue that speech-language and hearing professionals are faced with a knowledge gap due to a hegemonic lack of diversity, which could explain why cultural and linguistic diversity training did not have a significant effect on participants' perceived competence and

confidence. Universities should thus develop and offer courses that specifically address cultural competence across all years of study.

5.4. Summary

The South African government and professional bodies (e.g. HPCSA) recognise the importance of receiving health care in one's language of choice. Despite this, these organisations have yet to take the responsibility for implementing these policies. The availability of suitably trained translators and interpreters at all health facilities will help achieve quality healthcare and have been found to raise client satisfaction for linguistically diverse clients to approximate that of clients without language barriers (Benjamin et al., 2016; Jacobs et al., 2006; Karliner et al., 2007; Ribera et al., 2013; Tribe & Tunariu, 2009).

Chapter 6: Conclusions

This chapter provides a summary of the research findings, a critical evaluation of the study, recommendations for future research, and finally, the implications of the study.

6.1 Summary of findings

This current study which described South African audiologists' experiences of providing services to a culturally and linguistically diverse population yielded findings that have clinical and theoretical implications for the audiology profession. These results can be summarised as follows:

- Untrained interpreters (such as family members) were most often used by participants when working with linguistically diverse clients as most facilities did not employ trained interpreters and translators.
- Making use of interpreters (untrained and trained) materially improved the perceived competence and confidence levels of participants when providing services to CALD clients.
- Audiologist's perceived competence and confidence was the lowest when working with linguistically diverse clients, regardless of the use of an interpreter. This was particularly evident during audiological counselling.
- Linguistic ability (being mono-, bi- or multi-lingual) was the only metric that had a statistically significant effect on the competence and confidence levels of participants when providing audiological services to CALD clients.

- Having received cultural and linguistic diversity training and work experience did not appear to have a significant effect on participants' reported competence and confidence levels when providing services to CALD clients.

6.2 Strengths

This study assisted in building on available research about how audiologists' experiences are affected when faced with cultural and linguistic diversity in the workplace. To the best of the researcher's knowledge, this is the first study investigating the confidence and competence levels of South African audiologists when providing services to CALD individuals. The findings have increased the knowledge-base about the experiences in terms of how their perceived competence and confidence are affected, as well as their use of translators and interpreters when providing audiological services.

The mixed-method, sequential explanatory research design assisted in obtaining results that are more in-depth than what would have been obtained by using only quantitative or qualitative methods. The qualitative phase facilitated the clarification and augmentation of the results obtained in the quantitative phase.

Lastly, the research is strengthened by the fact that participants were representative of both the public and private healthcare sectors.

6.3 Limitations of the study

Although findings from this study may have clinical and research implications the following methodological weaknesses need to be considered, as they present limitations to the current study:

- The final sample size of the quantitative phase was smaller than anticipated. The low response rate (3%) in the current study is however similar to a previous survey conducted by Makhoba and Joseph in 2016, with a response rate of 3.1%.
- There was an unequal distribution of participants in group 1 in terms of the work setting as most participants were working in urban settings.
- Maximum variation sampling was used to select participants for the qualitative phase of the research. Participants were chosen according to diversity in terms of home language, the number of languages spoken, culture and work environment, as it delivered broader perceptions and insights to the researched phenomenon. Although participants displayed diverse characteristics, a person with a foreign home language could have provided valuable information. Unfortunately, no such person participated in either phase of the research.

6.4 Recommendations for future research

Due to the paucity of research in the area of South African audiologists' experiences of providing services to CALD clients, various opportunities to expand on the current study exist. Recommendations for further research are:

- The replication of the study with a larger sample will assist to facilitate the generalisability of the findings.
- Future research could investigate different healthcare sectors (private healthcare, public healthcare, etc.) and different work settings (urban, rural) independently to gain more in-depth results of each. Research should especially be conducted in the rural areas of South Africa, as these areas are already under-resourced.

- The topic of translator and interpreter use by South African audiologists proved to be very broad. This important topic might not have received adequate investigation and consideration. Valuable information may have been overlooked, which deserves to be explored extensively. Considering this, a separate study where this topic can be explored in greater detail is merited.
- To further increase the extent of this sampling method and employ the ‘Inclusive engagement’ capability, future research should include individuals who have a foreign home language in both phases of the study. Including such participants may provide data pertinent to the research results.

6.5 Implications of the study

The Cultural Responsiveness Capability Framework (IAHA, 2015) is an appropriate framework that can be used across all levels of healthcare to ensure that health services uphold the principles of cultural responsiveness, especially in light of the new NHI Bill. This framework outline six capabilities (*Table 1*) that address the central tenet of ‘What do we need to know, to be and do, to be culturally responsive’. Key considerations are inclusive engagement, and responsibility and accountability. Inclusive engagement encourages active engagement of clients and communities as it will encourage CALD clients to feel respected and included in relationships with HCPs (IAHA, 2015) and thus improve the acceptability of services. By taking responsibility and being accountable for providing culturally competent services HCPs, managers at a facility-, district-, provincial-, and national level, and professional bodies (e.g. the HPCSA) will ensure that the inequalities in the current South African healthcare services are addressed. The first step could be to implement the Policy on Language Services of the Department of Health (2011) that advocates for the employment of

trained translators and interpreters to act as mediators in the public healthcare sector (at all levels of care).

Audiologists in South Africa face the challenge of providing equitable hearing health services to the entire population. Reasons include: (i) limited human resources; (ii) unequal distribution of professionals between private and public healthcare sectors, as well as urban vs. rural contexts; (iii) the lack of trained interpreters at facility level; (iv) the limited transformation of the profession in terms of the cultural and linguistic diversity of its student body and qualified audiologists; and (v) the lack of adequate transformation of the curriculum to facilitate cultural competence.

To address these challenges, the Department of Health should be encouraged to create (and fill) more posts for audiologists across all levels of care, and specifically at primary healthcare facilities in rural areas. This should also be the case for the trained interpreters.

The transformation of the profession and curriculum must be fast tracked. As the South African hearing healthcare workforce is not reflective of the population it serves, it is essential to diversify this workforce. This starts at the undergraduate level with the responsibility of universities to proactively recruit students that are representative of the South African population. The responsibility also lies with employers who should employ audiologists who are culturally competent given the specific context.

The transformation of the curriculum should be encouraged by the HPCSA. Suggestions for curricula transformation include: (i) taking a compulsory additional language course (up to the third year of study); (ii) offering a compulsory cultural competence course across all years of study to engender respect for the centrality of culture as this will allow HCPs to respond appropriately to the healthcare needs of all clients. universities.

Graduate audiologists should also take responsibility to strive to be culturally responsive, regardless of the work context. This can be achieved by completing CPD courses that focus on cultural competence and -responsiveness, approaching cultural brokers to guide them in their specific work contexts, and requesting in-service training and workplace orientation to guide and enable cultural responsiveness.

6.7 Summary

This chapter provided a summary of the research findings. Through critical analysis of the research and its strengths and weaknesses, the reliability and validity of the study were exhibited. Research recommendations were made, which was concluded by its implications.

References

- Abalos-Fabia, R. S., Khadrawi, S. M., & Ellasus, R. O. (2019). Behavior, awareness and sensitivity of healthcare providers in a multicultural environment. *Nurse Media Journal of Nursing*, 8(2), 58. <https://doi.org/10.14710/nmjn.v8i2.20698>
- Agency for Clinical Innovation. (2020). *Culturally Responsive Practice*. Consumer Enablement Guide. <https://www.aci.health.nsw.gov.au/resources/chronic-care/consumer-enablement/guide/how-to-support-enablement/culturally-responsive-practice>
- Ali, P. A., & Watson, R. (2018). Language barriers and their impact on provision of care to patients with limited English proficiency: Nurses' perspectives. *Journal of Clinical Nursing*, 27(5–6), e1152–e1160.
- Alvesson, M., & Skoldberg, K. (2009). *Reflexive methodology* (Second). SAGE Publications Ltd.
- American Speech-Language-Hearing Association. (2020). *Audiologist roles and responsibilities*. American Speech-Language-Hearing Association; ASHA. <https://www.asha.org/Students/Audiologist-Roles-and-Responsibilities/>
- Babacan, H., & Gill, G. K. (2012). Developing a cultural responsiveness framework in healthcare systems: An Australian example. *Diversity & Equality in Health and Care*, 9(1), 45–55.
- Barratt, J., Khoza-Shangase, K., & Msimang, K. (2012). Speech-language assessment in a linguistically diverse setting: Preliminary exploration of the possible impact of informal 'solutions' within the South African context. *South African Journal of Communication Disorders*, 59(1), 34–44. <https://doi.org/10.4102/sajcd.v59i1.20>
- Behar-Horenstein, L. S., Feng, X., Isaac, C. A., & Lee, B. (2017). Dental students' expression of cultural competence. *Journal of Ethnographic & Qualitative Research*, 11(3), 171–187.

- Benatar, S. R. (2013). The challenges of health disparities in South Africa. *South African Medical Journal*, 103(3), 154–155. <https://doi.org/10.7196/SAMJ.6622>
- 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.
- Berger, R. (2015). Now I see it, now I don't: Researcher's position and reflexivity in qualitative research. *Qualitative Research*, 15(2), 219–234. <https://doi.org/10.1177/1468794112468475>
- Blackstone, S. W., Ruschke, K., Wilson-Stronks, A., & Lee, C. (2011). *Converging communication vulnerabilities in health care: An emerging role for speech-language pathologists and audiologists*. 18(1), 3–11. <https://doi.org/10.1044/cds18.1.3>
- Brach, C., & Fraser, I. (2000). Can cultural competency reduce racial and ethnic health disparities? A review and conceptual model. *Medical Care Research and Review: MCRR*, 57(suppl. 1), 181–217. <https://doi.org/10.1177/1077558700057001S09>
- Cambridge University Press. (2019). *Diversity* [Dictionary]. Cambridge Dictionary. <https://dictionary.cambridge.org/dictionary/english/diversity>
- Castleberry, A., & Nolen, A. (2018). Thematic analysis of qualitative research data: Is it as easy as it sounds? *Currents in Pharmacy Teaching and Learning*, 10(6), 807–815. <https://doi.org/10.1016/j.cptl.2018.03.019>
- Centers for Disease Control and Prevention. (2013). *Attaining health equity*. Centers for Disease Control and Prevention. <https://www.cdc.gov/nccdphp/dch/programs/healthycommunitiesprogram/overview/healthequity.htm>

- Chiuri, G. M. (2012). *Speech language pathologists' perceptions of services to children from culturally and linguistically diverse backgrounds* [Baylor University]. https://baylor-ir.tdl.org/baylor-ir/bitstream/handle/2104/8414/Grace_Chiuri_phd.pdf;sequence=1
- Cohen, N., & Arieli, T. (2011). Field research in conflict environments: Methodological challenges and snowball sampling. *Journal of Peace Research*, 48(4), 423–435.
<https://doi.org/10.1177/0022343311405698>
- Crawford, T., Candlin, S., & Roger, P. (2017). New perspectives on understanding cultural diversity in nurse–patient communication. *Collegian*, 24(1), 63–69.
<https://doi.org/10.1016/j.colegn.2015.09.001>
- Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd edition). SAGE Publications, Inc.
- Creswell, J. W. (2014a). Mixed methods procedures. In *Research design: Qualitative, quantitative, and mixed methods approaches* (2020-03-01; 4th ed, p. 270). SAGE Publications.
- Creswell, J. W. (2014b). Mixed methods procedures. In V. Knight, B. Bauhaus, M. Markanich, & A. Hutchinson (Eds.), *Research design: Qualitative, quantitative, and mixed methods approaches* (2020-03-01; 4th ed, p. 270). SAGE Publications.
- Creswell, J. W. (2014c). Mixed methods procedures. In V. Knight, B. Bauhaus, M. Markanich, & A. Hutchinson (Eds.), *Research design: Qualitative, quantitative, and mixed methods approaches* (2020-03-01; 4th ed, p. 273). SAGE Publications.
- Creswell, J. W. (2014d). *Research design: Qualitative, quantitative, and mixed methods approaches* (2020-03-01; 4th ed). SAGE Publications.

- de Moissac, D., & Bowen, S. (2019). Impact of language barriers on quality of care and patient safety for official language minority Francophones in Canada. *Journal of Patient Experience*, 6(1), 24–32. <https://doi.org/10.1177/2374373518769008>
- Department of Health. (2011). *Policy on language services (2011) for the National Department of Health*. <http://www.doh.gov.za/docs/policy/2011/15042011.pdf>.
- Department of Health and Human Services. (2009). *Cultural responsiveness framework—Guidelines for Victorian health services*. Department of Health & Human Services. <https://www2.health.vic.gov.au:443/about/publications/policiesandguidelines/Cultural-responsiveness-framework---Guidelines-for-Victorian-health-services>
- 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), 9. <https://doi.org/10.4102/sajcd.v65i1.570>
- Eamranond, P. P., Davis, R. B., Phillips, R. S., & Wee, C. C. (2011). Patient-physician language concordance and primary care screening among spanish-speaking patients. *Medical Care*, 49(7), 668–672. <https://doi.org/10.1097/MLR.0b013e318215d803>
- Eaton, S. E. (2011). *How long does it take to learn a second language? Applying the “10,000-hour rule” as a model for fluency* (p. 10) [Evaluative]. Institute of Educational Sciences. <https://files.eric.ed.gov/fulltext/ED516761.pdf>
- Edusei, J., & Amoah, P. A. (2014). Appreciating the complexities in accessing health care among urban poor: The case of street children in Kumasi Metropolitan Area, Ghana. *Developing Country Studies*, 4(8), 69–88.

- Ellis, S. M., & Steyn, H. S. (2003). Practical significance (effect sizes) versus or in combination with statistical significance (p-values). *Management Dynamics: Journal of the Southern African Institute for Management Scientists*, 12(4), 51–53.
- Erlandson, D. A., Harris, E. L., Skipper, B. L., & Allen, S. D. (1993a). *Doing naturalistic inquiry: A guide to methods*. SAGE.
- Erlandson, D. A., Harris, E. L., Skipper, B. L., & Allen, S. D. (1993b). *Doing naturalistic inquiry: A guide to methods*. SAGE Publications.
- Eswaran, V. (2019, April 29). *The business case for diversity is now overwhelming* [Agenda]. World Economic Forum. <https://www.weforum.org/agenda/2019/04/business-case-for-diversity-in-the-workplace/>
- Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*, 5(1), 1–4. <https://doi.org/10.11648/j.ajtas.20160501.11>
- Ferris State University. (2019a). *Diversity and inclusion definitions*. Ferris State University. <https://www.ferris.edu/htmls/administration/president/diversityoffice/definitions.htm>
- Ferris State University. (2019b). *Diversity and inclusion definitions* [University]. Ferris State University. <https://www.ferris.edu/htmls/administration/president/diversityoffice/definitions.htm>
- Finlay, F., Dunne, J., & Guiton, G. (2017). Children acting as interpreters. *Archives of Disease in Childhood*, 102(Suppl 1), A23. <https://doi.org/10.1136/archdischild-2017-313087.53>
- Ghafouri, R., & Ofoghi, S. (2016). Trustworth and rigor in qualitative research. *International Journal of Advanced Biotechnology and Research*, 7(4), 1914–1922.

- Government Communications and Information System. (2019a). Health. In E. Tibane & Z. Mngadi (Eds.), *Officialguide to South Africa 2018/19* (16th ed., pp. 119–126). Government Communications (GCIS).
<https://www.gcis.gov.za/sites/default/files/docs/resourcecentre/pocketguide/2012/0-Official%20Guide%20Foreword-2018-19%28print%29.pdf>
- Government Communications and Information System. (2019b). People of South Africa. In E. Tibane & Z. Mngadi (Eds.), *Officialguide to South Africa 2018/19* (16th ed., pp. 11–16). Government Communications (GCIS).
<https://www.gcis.gov.za/sites/default/files/docs/resourcecentre/pocketguide/2012/0-Official%20Guide%20Foreword-2018-19%28print%29.pdf>
- Government Gazette. (2012). *Health Professions Act 56 of 1974*.
https://www.hpcsa.co.za/Uploads/editor/UserFiles/downloads/legislations/regulations/slh/regulations/regulations_gnr_106_2014.pdf
- Government of South Africa. (2020). *South Africa's people*. South African Government.
<https://www.gov.za/about-sa/south-africas-people#main-content>
- Guiberson, M., & Atkins, J. (2012). Speech-language pathologists' preparation, practices, and perspectives on serving culturally and linguistically diverse children. *Communication Disorders Quarterly*, 33(3), 169–180. <https://doi.org/10.1177/1525740110384132>
- Haddad, S., & Mohindra, K. (2002a). *Access, opportunities and communities: Ingredients for health equity in the South*. Public Health and International Justice Workshop, New York.
- Haddad, S., & Mohindra, K. (2002b). *Access, opportunities and communities: Ingredients for health equity in the South*. Public Health and International Justice Workshop, New York.
- Hall, J. W. (2016). Crosscheck Principle in Pediatric Audiology Today: A 40-Year perspective. *Journal of Audiology and Otology*, 20(2), 59–67. <https://doi.org/10.7874/jao.2016.20.2.59>

- Hammond, C., Mitchell, P., & Johnson, M. (2009). Academic and clinical preparation for cultural and linguistic diversity in speech-language pathology: Program director perspectives. *Contemporary Issues in Communication Science & Disorders*, 36, 63–76.
- Handcock, M. S., & Gile, K. J. (2011). On the concept of snowball sampling. *Sociological Methodology*, 41(1), 367–371. <https://doi.org/10.1111/j.1467-9531.2011.01243.x>
- Harker, L. (2016, October 7). *Unlocking the benefits of an inclusive health workforce*. Georgia Budget and Policy Institute. <https://gbpi.org/unlocking-benefits-diverse-health-workforce/>
- Hassan, Z. A., Schattner, P., & Mazza, D. (2006). Doing a pilot study: Why is it essential? *Malaysian Family Physician*, 1(2–3), 70–73.
- Haynes, K. (2014, August 26). *Reflexivity in qualitative research*. 7th Colloquium on qualitative research methods in business and accounting. <http://mams.rmit.edu.au/lnywdcon3ial1.pdf>
- Heale, R., & Twycross, A. (2015). Validity and reliability in quantitative studies. *Evidence-Based Nursing*, 18(3), 66–67. <https://doi.org/10.1136/eb-2015-102129>
- Health Professions Council of South Africa. (2019). *Guidelines for practice in a culturally and linguistically diverse South Africa*. <https://www.hpcsa.co.za/Uploads/SLH/Guidelines%20for%20practice%20in%20a%20culturally%20and%20linguistically%20divers---.pdf>
- Health Professions Council of South Africa. (2020, January 4). *Publications*. Health Professions Council of South Africa. <https://www.hpcsa.co.za/?contentId=412&actionName=Publications>
- Health Systems Trust. (2019). *Health indicators*. Health Systems Trust. <https://www.hst.org.za:443/healthindicators>

- Henderson, S., & Kendall, E. (2011). Culturally and linguistically diverse peoples' knowledge of accessibility and utilisation of health services: Exploring the need for improvement in health service delivery. *Australian Journal of Primary Health*, 17(2), 195.
<https://doi.org/10.1071/PY10065>
- Hendriks, A. (2008). Ethnic and cultural diversity: Challenges and opportunities for health law. *European Journal of Health Law*, 15(3), 285–295.
<https://doi.org/10.1163/157180908X338232>
- Holland, K., Middleton, L., & Uys, L. (2012). The source of professional confidence in occupational therapy students. *South African Journal of Occupational Therapy*, 42(3), 19–25.
- Hornby, A. S. (1995a). Advanced learner's dictionary of current English. In *Oxford* (5th ed.). Oxford New York.
- Hornby, A. S. (1995b). Advanced learner's dictionary of current English. In J. Crowther (Ed.), *Oxford* (5th ed.). Oxford University Press.
- Hosmer, D. W., Lemeshow, S., & Sturdivant, R. X. (2013). *Applied logistic regression* (Third edition). Wiley. https://doc-0g-4k-apps-viewer.googleusercontent.com/viewer/secure/pdf/im7h5qcqfikbsc09kejcffu1sn5h6i79/8gdj8dse70132kdh2fr7fi4u6j0vacua/1574416425000/gmail/11219688698258197682/ACFrOgCmwi4aOgoYKZFjZHOSMgjinii9beDtdx9MytnVZ_jK0zG6SCjOwMmUq0ZMXGEnbG2Lrs4tHg7bXysHgDhwdORl0a4OfM7j_TjtTsYeS3Cl583vPNweqlWPfScA=?print=true&nonce=e6pmlilc5g2ks&user=11219688698258197682&hash=0gb1qob1v4ovcscjv80ttio70qs83qe4
- HPCSA. (2016a). *Guidelines for good practice in the health care profession*. Health Professions Council of South Africa.
https://www.hpcsa.co.za/Uploads/editor/UserFiles/downloads/conduct_ethics/Booklet%205.pdf

- HPCSA. (2016b). *Guidelines for good practice in the health care profession—Confidentiality: Protecting and providing information*. Health Professions Council of South Africa.
https://www.hpcsa.co.za/Uploads/editor/UserFiles/downloads/conduct_ethics/Booklet%205.pdf
- HPCSA. (2016c). *Guidelines for good practice in the health care profession—General ethical guidelines for health researchers*. Health Professions Council of South Africa.
https://www.hpcsa.co.za/Uploads/editor/UserFiles/downloads/conduct_ethics/Booklet%205.pdf
- Hunter-Adams, J., & Rother, H.-A. (2017). A Qualitative study of language barriers between South African health care providers and cross-border migrants. *BioMed Central Health Services Research*, 17(1), 97. <https://doi.org/10.1186/s12913-017-2042-5>
- Hussey, N. (2013). The language barrier: The overlooked challenge to equitable health care: Emerging Public Health Practitioner Awards. *South African Health Review*, 2012/2013(1), 189–195.
- IBM Corporation. (2019). *SPSS statistics* (Version 26) [En]. www.ibm.com/products/spss-statistics
- Ihara, E. (2004). *Cultural competence in health care: Is it important for people with chronic conditions?* [Georgetown University]. Health Policy Institute.
<https://hpi.georgetown.edu/cultural/>
- Indigenous Allied Health Australia. (2015). *Cultural responsiveness in action: An IAHA framework*. Indigenous Allied Health Australia. <https://iaha.com.au/policy/cultural-safety/>
- Jacobs, E., Chen, A. H., Karliner, L. S., Agger-gupta, N., & Mutha, S. (2006). The need for more research on language barriers in health care: A proposed research agenda. *Milbank Quarterly*, 84(1), 111–133. <https://doi.org/10.1111/j.1468-0009.2006.00440.x>

- Jarrar, M., Minai, M. S., Al-Bsheish, M., Meri, A., & Jaber, M. (2019). Hospital nurse shift length, patient-centered care, and the perceived quality and patient safety. *The International Journal of Health Planning and Management*, 34(1), e387–e396. <https://doi.org/10.1002/hpm.2656>
- Johnstone, M.-J., & Kanitsaki, O. (2006). Culture, language, and patient safety: Making the link. *International Journal for Quality in Health Care*, 18(5), 383–388. <https://doi.org/10.1093/intqhc/mzl039>
- 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. <https://doi.org/10.1111/j.1475-6773.2006.00629.x>
- Kathard, H., Ramma, L., Pascoe, M., Jordaan, H., Moonsamy, S., Wium, A.-M., Du Plessis, S., Pottas, L., & Khan, N. (2011). How can Speech Language Therapists and Audiologists enhance language and literacy outcomes in South Africa? (And why we urgently need to). *South African Journal of Communication Disorders*, 58(2), 59–71. <https://doi.org/10.4102/sajcd.v58i2.27>
- Keller, M., & Manicom, C. (2019). *Reporting on migration in South Africa*. Sonke Gender Justice and Scalabrini Centre. http://www.migration.org.za/wp-content/uploads/2019/10/Migration-Journalist-Guide_final-hi-res.pdf
- Khan, T., Thomas, L. S., & Naidoo, S. (2013). Analysing post-apartheid gender and racial transformation in medical education in a South African province. *Global Health Action*, 6, 19810. <https://doi.org/10.3402/gha.v6i0.19810>
- Khoza-Shangase, K., & Mophosho, M. (2018). Language and culture in speech-language and hearing professions in South Africa: The dangers of a single story. *The South African Journal of Communication Disorders*, 65(1), e1–e7. <https://doi.org/10.4102/sajcd.v65i1.594>

- Kirmayer, L. J., & Jarvis, G. E. (2019). Culturally responsive services as a path to equity in mental healthcare. *HealthcarePapers*, 18(2), 11–23.
- Kleinman, A., Eisenberg, L., & Good, B. (1978). Culture, illness, and care: Clinical lessons from anthropologic and cross-cultural research. *Annals of Internal Medicine*, 88(2), 251–258.
<https://doi.org/10.1176/foc.4.1.140>
- Krouse, H. J., Magit, A. E., O'Connor, S., Schwarz, S. R., & Walsh, S. A. (2017). Plain language summary: Earwax (cerumen impaction). *Otolaryngology–Head and Neck Surgery*, 156(1), 30–37. <https://doi.org/10.1177/0194599816680327>
- Leben, W. R. (2018). Languages of the world. In *Oxford Research Encyclopedia of Linguistics* (Vol. 1). <https://doi.org/10.1093/acrefore/9780199384655.013.349>
- Levesque, J.-F., Harris, M. F., & Russell, G. (2013). Patient-centred access to health care: Conceptualising access at the interface of health systems and populations. *International Journal for Equity in Health*, 12(1), 18. <https://doi.org/10.1186/1475-9276-12-18>
- Makhoba, M., & Joseph, N. (2016). Practices and views of audiologists regarding aural rehabilitation services for adults with acquired hearing loss. *South African Journal of Communication Disorders*, 63(1), a155. <https://doi.org/10.4102/sajcd.v63i1.155>
- Matsuura, K., & Riviere, F. (2009). *Investing in cultural diversity and intercultural dialogue*. United Nations Educational, Cultural and Scientific Organization.
<https://unesdoc.unesco.org/ark:/48223/pf0000185202>
- Mayosi, B. M., & Benatar, S. R. (2014). Health and health care in South Africa—20 Years after Mandela. *New England Journal of Medicine*, 371(14), 1344–1353.
<https://doi.org/10.1056/NEJMSr1405012>

- McIntyre, D., & Ataguba, J. (2017). *Access to quality health care in South Africa: Is the health sector contributing to addressing the inequality challenge?* [Government organisation]. Parliament of the Republic of South Africa.
https://www.parliament.gov.za/storage/app/media/Pages/2017/october/High_Level_Panel/Commissioned_reports_for_triple_challenges_of_poverty_unemployment_and_inequality/Diagnostic_Report_on_Access_to_Quality_Healthcare.pdf
- Mdladlo, T., Flack, P., & Joubert, R. (2016). Are South African Speech-Language Therapists adequately equipped to assess English Additional Language (EAL) speakers who are from an indigenous linguistic and cultural background? A profile and exploration of the current situation. *South African Journal of Communication Disorders*, 63(1), 5.
<https://doi.org/10.4102/sajcd.v63i1.130>
- Mikkonen, K., Elo, S., Kuivila, H.-M., Tuomikoski, A.-M., & Kääriäinen, M. (2015). Culturally and linguistically diverse healthcare students' experiences of learning in a clinical environment: A systematic review of qualitative studies. *International Journal of Nursing Studies*, 54, 173–187. <https://doi.org/10.1016/j.ijnurstu.2015.06.004>
- Moonsamy, S., Mupawose, A., Seedat, J., Mophosho, M., & Pillay, D. (2017). Speech-language pathology and audiology in South Africa: Reflections on transformation in professional training and practice since the end of apartheid. *Perspectives of the ASHA Special Interest Groups*, 2. <https://doi.org/10.1044/persp2.SIG17.30>
- Mophosho, M. (2016). *Speech-language therapy consultation practices in multilingual and multicultural health care contexts*. University of the Witwatersrand.
- Mophosho, M. (2017). *Speech-language therapy consultation practices in multilingual and multicultural health care contexts* [Thesis, University of the Witwatersrand].
<http://wiredspace.wits.ac.za/handle/10539/23832>

- Morse, J. M. (2015). Critical analysis of strategies for determining rigor in qualitative inquiry. *Qualitative Health Research*, 25(9), 1212–1222. <https://doi.org/10.1177/1049732315588501>
- Morse, J. M., Barrett, M., Mayan, M., Olson, K., & Spiers, J. (2002). Verification strategies for establishing reliability and validity in qualitative research. *International Journal of Qualitative Methods*, 1(2), 13–22. <https://doi.org/10.1177/160940690200100202>
- Mulwafu, W., Ensink, R., Kuper, H., & Fagan, J. (2017). Survey of ENT services in sub-Saharan Africa: Little progress between 2009 and 2015. *Global Health Action*, 10(1). <https://doi.org/10.1080/16549716.2017.1289736>
- Noble, H., & Smith, J. (2015). Issues of validity and reliability in qualitative research. *Evidence - Based Nursing*, 18(2), 34–35. <https://doi.org/10.1136/eb-2015-102054>
- Oswald, D., Sherratt, F., & Smith, S. (2014). Handling the Hawthorne effect: The challenges surrounding a participant observer. *Review of Social Studies*, 1(1), 53–74. <https://doi.org/10.21586/ross0000004>
- Pascoe, M., Klop, D., Mdlalo, T., & Ndhambi, M. (2017). Beyond lip service: Towards human rights-driven guidelines for South African speech-language pathologists. *International Journal of Speech-Language Pathology*, 20(1), 67–74. <https://doi.org/10.1080/17549507.2018.1397745>
- Pascoe, M., & Norman, V. (2011). Contextually relevant resources in speech-language therapy and audiology in South Africa – are there any? *South African Journal of Communication Disorders*, 58, 2–5.
- Pascoe, M., Rogers, C., & Norman, V. (2013). Are we there yet? On a journey towards more contextually relevant resources in speech-language therapy and audiology. *South African Journal of Communication Disorders*, 60, 2–9. <https://doi.org/10.7196/sajcd.256>

- Penn, C., & Watermeyer, J. (2018a). *Communicating across cultures and languages in the health care setting—Voices of care*. Macmillan Publishers Ltd.
<https://www.palgrave.com/gp/book/9781137580993>
- Penn, C., & Watermeyer, J. (2018b). Prologue. In *Communicating across cultures and languages in the health care setting—Voices of care* (1st ed., pp. 3–23). Macmillan Publishers Ltd.
<https://www.palgrave.com/gp/book/9781137580993>
- Penn, C., & Watermeyer, J. (2018c). The context of health communication: Global, local and theoretical. In *Communicating across cultures and languages in the health care setting—Voices of care* (1st ed., pp. 25–57). Macmillan Publishers Ltd.
<https://www.palgrave.com/gp/book/9781137580993>
- Peters, D. H., Garg, A., Bloom, G., Walker, D. G., Brieger, W. R., & Rahman, M. H. (2008). Poverty and access to health care in developing countries. *Annals of the New York Academy of Sciences*, 1136, 161–171. <https://doi.org/10.1196/annals.1425.011>
- Pillay, M., Tiwari, R., Kathard, H., & Chikte, U. (2020). Sustainable workforce: South African audiologists and speech therapists. *Human Resources for Health*, 18(1).
<https://doi.org/10.1186/s12960-020-00488-6>
- Quach, W., & Tsai, P.-T. (2017). Preparing future SLPs for the clinical world of cultural-linguistic diversity. *Perspectives of the ASHA Special Interest Groups*, 2(14), 82–102.
<https://doi.org/10.1044/persp2.SIG14.82>
- Regmi, P. R., Waithaka, E., Paudyal, A., Simkhada, P., & van Teijlingen, E. (2016). Guide to the design and application of online questionnaire surveys. *Nepal Journal of Epidemiology*, 6(4), 640–644. PubMed. <https://doi.org/10.3126/nje.v6i4.17258>
- Republic of South Africa. (2004). *The national health act no 61 of 2003*. 469(26595), 1–94.

Republic of South Africa Department of Health. (2017). *National health insurance for South Africa*.

www.gov.za/sites/www.gov.za/files/37869_rg10239_gon585.

Resnik, D. B., & Shamoo, A. E. (2011). The Singapore Statement on Research Integrity.

Accountability in Research, 18(2), 71–75. <https://doi.org/10.1080/08989621.2011.557296>

Ribera, J., Hausmann-Muela, S., Peeters Grietens, K., & Toomer, E. (2013). Is the use of interpreters in medical consultations justified? A critical review of the literature. *PASS International*.

https://www.researchgate.net/publication/236630873_Is_the_use_of_interpreters_in_medical_consultations_justified_A_critical_review_of_the_literature

Riquelme, L., & Rosas, J. (2009). Multicultural perspectives: The road to cultural competence. In

Language Development: Foundations, Processes, and Clinical Applications (1st ed.). Jones & Bartlett Publishers.

SAAA. (2019). *FAQ- What does an audiologist do?* South African Association of Audiologists.

<https://www.audiologysa.co.za/FAQ>

Salisbury, J., & Byrd, S. (2006). Why diversity matters in health care. *California Society of*

Anesthesiologists, 55(1), 90–93.

Salkind, N. J. (2009). *Exploring research* (7th ed.). Pearson Education Inc.

<https://www.pearson.com/us/higher-education/product/Salkind-Exploring-Research-8th-Edition/9780205093816.html>

Saskatoon Health Region. (2014a). *Equity vs equality*. Northwestern Health Unit.

<https://www.nwhu.on.ca/ourservices/Pages/Equity-vs-Equality.aspx>

Saskatoon Health Region. (2014b). *Equity vs equality* [Health Unit]. Northwestern Health Unit.

<https://www.nwhu.on.ca/ourservices/Pages/Equity-vs-Equality.aspx>

SASLHA. (2011). *Guidelines: Public health sector*.

- Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for Information*, 22, 63–75. <https://doi.org/10.3233/efi-2004-22201>
- Singh, S., Booth, A., Choto, F., Gotlieb, J., Robertson, R., Morris, G., Stockley, N., & 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. <https://doi.org/10.4102/sajcd.v62i1.110>
- South African Department of Health. (2020). *Vision & Mission* [Government organisation]. Department of Health. <http://www.health.gov.za/index.php/shortcodes/vision-mission>
- Spriestersbach, A., Röhrig, B., du Prel, J.-B., Gerhold-Ay, A., & Blettner, M. (2009). Descriptive statistics- The specification of statistical measures and their presentation in tables and graphs. *Deutsches Ärzteblatt International*, 106(36), 578–583. <https://doi.org/10.3238/arztebl.2009.0578>
- Stach, B. A. (2010). *Clinical audiology: An introduction* (Second). Delmar Cengage Learning.
- Statistics South Africa (Ed.). (2016). *Community Survey 2016. Profiling socio-economic status and living arrangements of persons with disabilities in South Africa*. Statistics South Africa.
- Swartz, L., Kilian, S., Twesigye, J., Attah, D., & Chiliza, B. (2014). Language, culture, and task shifting – an emerging challenge for global mental health. *Global Health Action*, 7(1), 23433. <https://doi.org/10.3402/gha.v7.23433>
- The Department of Justice and Constitutional Development. (2017). *Bill of rights, chapter 2, section 7-39*. The South African Constitution. <https://www.justice.gov.za/legislation/constitution/chp02.html>
- The Glossary of Education Reform. (2016). *Equity* [Glossary]. The Glossary of Education Reform. <https://www.edglossary.org/equity/>

- Tribe, R., & Tunariu, A. (2009). Mind your language: Working with interpreters in healthcare settings and therapeutic encounters. *Sexual and Relationship Therapy*, 24(1), 74–84.
<https://doi.org/10.1080/14681990802666023>
- Van den Berg, V. L. (2016). Still lost in translation: Language barriers in South African health care remain. *South African Family Practice*, 58(6), 229–231.
<https://doi.org/10.1080/20786190.2016.1223795>
- van der Merwe, L. J., van Zyl, G. J., St Clair Gibson, A., Viljoen, M., Iputo, J. E., Mammen, M., Chitha, W., Perez, A. M., Hartman, N., Fonn, S., Green-Thompson, L., Ayo-Ysuf, O. A., Botha, G. C., Manning, D., Botha, S. J., Hift, R., Retief, P., van Heerden, B. B., & Volmink, J. (2016). South African medical schools: Current state of selection criteria and medical students' demographic profile. *South African Medical Journal*, 106(1), 76–81.
<https://doi.org/10.7196/SAMJ.2016.v106i1.9913>
- Venkatesh, V., Brown, S. A., & Bala, H. (2013). Bridging the qualitative-quantitative divide: Guidelines for conducting mixed methods research in information systems. *MIS Quarterly*, 37(1), 21–54.
- Vetter, T. R. (2017). Descriptive statistics: Reporting the answers to the 5 basic questions of who, what, why, when, where, and a sixth, so what? *Anesthesia & Analgesia*, 125(5), 1797–1802.
<https://doi.org/10.1213/ANE.0000000000002471>
- Vicente, M., Calandruccio, L., Miller, M. K., Browning, J. M., Oleson, J., & Leibold, L. J. (2019). Language proficiency and dominance considerations when working with Spanish–English bilingual adults. *American Journal of Audiology*, 28(3), 724–729.
https://doi.org/10.1044/2019_AJA-19-0028

- Wasserstein, R. L., & Lazar, N. A. (2016). The ASA Statement on p-values: Context, process, and purpose. *The American Statistician*, 70(2), 129–133.
<https://doi.org/10.1080/00031305.2016.1154108>
- Watt, K., Hu, W., Magin, P., & Abbott, P. (2018). “Imagine if I’m not here, what they’re going to do?”—Health-care access and culturally and linguistically diverse women in prison. *Health Expectations*, 21(6), 1159–1170. <https://doi.org/10.1111/hex.12820>
- Whitehead, M. (1992). The concepts and principles of equity and health. *International Journal of Health Services: Planning, Administration, Evaluation*, 22(3), 429–445.
<https://doi.org/10.2190/986L-LHQ6-2VTE-YRRN>
- Wilkinson, D., & Birmingham, P. (2003). *Using research instruments—A guide for researchers* (Illustrated). Routledge Falmer.
- Wium, A.-M., & Louw, B. (2018). Mixed-methods research: A tutorial for speech-language therapists and audiologists in South Africa. *The South African Journal of Communication Disorders*, 65(1), e1–e13. PubMed. <https://doi.org/10.4102/sajcd.v65i1.573>
- World Health Organization. (2013). *Transforming and scaling up health professionals’ education and training*. World Health Organization. <https://www.ncbi.nlm.nih.gov/books/NBK298950/>
- World Health Organization. (2018). *Continuity and coordination of care: A practice brief to support implementation of the WHO Framework on integrated people-centred health services*.
<https://apps.who.int/iris/bitstream/handle/10665/274628/9789241514033-eng.pdf>
- World Medical Association. (2013). World Medical Association Declaration of Helsinki: Ethical principles for medical research involving human subjects. *JAMA*, 310(20), 2191–2194.
<https://doi.org/10.1001/jama.2013.281053>

Young, M. (2016). *Private vs. Public healthcare in South Africa* [Honors, Western Michigan University].

https://scholarworks.wmich.edu/cgi/viewcontent.cgi?article=3752&context=honors_theses

Appendix A: Survey questionnaire

By completing and submitting the survey you acknowledge that you are giving informed consent to participate in the research survey

- Continue

DEMOGRAPHIC INFORMATION

Please answer the following questions:

1. I am currently registered with the HPCSA as:

- Audiologist
- Speech-language therapist and Audiologist
- Speech-language therapist
- I am not currently registered with the HPCSA

2. Gender

- Female
- Male
- Prefer not to say

3. Age

4. Ethnicity / Race

- Asian
- Black
- Caucasian
- Coloured
- Indian
- Other, please specify

5. In which province do you currently work?

- ☐ Eastern Cape
- ☐ Free State
- ☐ Gauteng
- ☐ KwaZulu- Natal
- ☐ Limpopo
- ☐ Mpumalanga
- ☐ North West
- ☐ Northern Cape
- ☐ Western Cape
- ☐ Other, please specify

6. How many years of experience do you have working as an audiologist or speech therapist and audiologist? (Years & months)

7. Please describe your primary work setting

- ☐ Academic institution
- ☐ Education
- ☐ Industry
- ☐ Non-Governmental Organisation (NGO)
- ☐ Private healthcare
- ☐ Public healthcare: Hospital
- ☐ Public healthcare: Community Health Centre
- ☐ Public healthcare: Clinic
- ☐ Not working at the moment
- ☐ Other

8. Please describe the context in which you work

- ☐ Rural area (countryside, far from large city/town)
- ☐ Semi-rural area (partly rural)
- ☐ Urban area (in city or town)
- ☐ Peri-urban area (area immediately surrounding a city/town)
- ☐ Not working at the moment

9. Are you mono-lingual, bilingual, or multi-lingual?

- Monolingual (1 language)
- Bilingual (2 languages)
- Multi-lingual (>2 languages)

10. Home language

- Afrikaans
- English
- isiNdebele
- isiXhosa
- isiZulu
- Northern Sotho
- Setswana
- SiSwati
- South African Sign Language
- Southern Sotho
- Tshivenda
- Xitsonga
- Other, please specify

11.1. I _____ a language other than English? (Select all that apply)

- speak
- understand
- speak & understand
- do not speak or understand

11.2. Please indicate which language/s other than English you speak or understand (Select all that apply)

- ☐ Afrikaans
- ☐ isiNdebele
- ☐ isiXhosa
- ☐ isiZulu
- ☐ Northern Sotho
- ☐ Setswana

- ☐ SiSwati
- ☐ Southern Sotho
- ☐ Tshivenda
- ☐ Xitsonga
- ☐ South African Sign Language
- ☐ Shona
- ☐ Portuguese
- ☐ Chichewa
- ☐ French
- ☐ Other, please specify

11.3. Please indicate your competency in additional languages

Language 1: Choose

I am competent in:	Strongly disagree	Disagree	Agree	Strongly agree
a) Reading	☐	☐	☐	☐
b) Writing	☐	☐	☐	☐
c) Talking	☐	☐	☐	☐
d) Understanding	☐	☐	☐	☐

Language 2: Choose

I am competent in:	Strongly disagree	Disagree	Agree	Strongly agree
a) Reading	☐	☐	☐	☐
b) Writing	☐	☐	☐	☐
c) Talking	☐	☐	☐	☐
d) Understanding	☐	☐	☐	☐

Language 3: Choose

I am competent in:	Strongly disagree	Disagree	Agree	Strongly agree
a) Reading	☐	☐	☐	☐
b) Writing	☐	☐	☐	☐
c) Talking	☐	☐	☐	☐
d) Understanding	☐	☐	☐	☐

12. Your training

12.1. I have received specific training related to the issues of cultural and linguistic diversity

- ☐ Yes
- ☐ No

12.2. If you answered 'yes' to the previous question, where did the training occur? (Select all that apply)

- ☐ Part of undergraduate education
- ☐ In-service workshops, courses, seminars, or conferences
- ☐ Other, please specify

PROFESSIONAL PERSPECTIVE OF THE AUDIOLOGIST

13. Patient languages

13.1. Please estimate the percentage of your patients seen (in the last 12-months) who have the following home languages:

	0%	1-25%	25-50%	50-75%	>75%
a) Afrikaans					
b) English					
c) isiNdebele					
d) isiXhosa					
e) isiZulu					
f) Northern Sotho					
g) Setswana					
h) SiSwati					
i) Southern Sotho					
j) Tshivenda					
k) Xitsonga					
l) South African Sign Language					
m) Shona					
n) Portuguese					
o) Chichewa					
p) French					
q) Other					

13.2. Please indicate ‘Other’ languages represented by your patients not indicated in question 13.1

14. Cultural and linguistic competence and confidence**(No translator or interpreter present)**Culture: Competence**14.1. How COMPETENT do you feel interacting with patients from diverse CULTURES during:**

Area	Not at all competent	Somewhat competent	Very competent	Extremely competent
a) Audiological assessment	☐	☐	☐	☐
b) Audiological intervention	☐	☐	☐	☐
c) Counselling	☐	☐	☐	☐

Culture: Confidence**14.2. How CONFIDENT do you feel interacting with clients from diverse CULTURES during:**

Area	Not at all confident	Somewhat confident	Very confident	Extremely confident
a) Audiological assessment	☐	☐	☐	☐
b) Audiological intervention	☐	☐	☐	☐
c) Counselling	☐	☐	☐	☐

Language: Competence**14.3. How COMPETENT do you feel interacting with clients from diverse LANGUAGES during:**

Area	Not at all competent	Somewhat competent	Very competent	Extremely competent

a) Audiological assessment	☐	☐	☐	☐
b) Audiological intervention	☐	☐	☐	☐
c) Counselling	☐	☐	☐	☐

Language: Confidence**14.4. How CONFIDENT do you feel interacting with clients from diverse LANGUAGES during:**

Area	Not at all confident	Somewhat confident	Very confident	Extremely confident
a) Audiological assessment	☐	☐	☐	☐
b) Audiological intervention	☐	☐	☐	☐
c) Counselling	☐	☐	☐	☐

15. Translators and interpreters

Translator: Transposes written text from one language to another.

Interpreter: Transposes spoken or signed communication from one language to another.

(Riquelme & Rosas, 2009)

Untrained interpreter or translator:

Often bilingual individuals, such as family members, children, other clients, cleaning staff etc. They have no medical interpretation/translation training.

Trained interpreters or translators:

Received theoretical and practical medical interpretation/translation training on areas such as medical encounters & terminology, roles & techniques, linguistic concepts etc.

15.1. In the past, which of the following individuals have you used for audiological assessment, intervention or counselling? (Select all that apply)

- ☐ Trained Translator
- ☐ Untrained Translator
- ☐ Trained Interpreter
- ☐ Untrained Interpreter

15.2. Please indicate the number of times you used a translators/interpreter in the last year (Trained and/or untrained)

- ☐ Once
- ☐ 2-5 times
- ☐ 6-10 times
- ☐ >10 times
- ☐ Not applicable

15.3. Who were the untrained interpreters (Select all that apply)

- ☐ Other client
- ☐ Family member of client
- ☐ Friend of client
- ☐ Staff member at the facility
- ☐ Community member
- ☐ Colleague
- ☐ Not applicable
- ☐ Other, please specify

16. Cultural and linguistic competence and confidence

(Interpreter present)

Confidence

16.1. With interpreter assistance, how CONFIDENT do you feel interacting with clients from diverse CULTURES during:

Area	Not at all confident	Somewhat confident	Very confident	Extremely confident
a) Audiological assessment	☐	☐	☐	☐
b) Audiological intervention	☐	☐	☐	☐
c) Counselling	☐	☐	☐	☐

16.2. With interpreter assistance, how CONFIDENT do you feel interacting with clients speaking a LANGUAGE you are not competent in speaking during:

Area	Not at all confident	Somewhat confident	Very confident	Extremely confident
a) Audiological assessment	☐	☐	☐	☐
b) Audiological intervention	☐	☐	☐	☐
c) Counselling	☐	☐	☐	☐

Competence

16.3. With interpreter assistance, how COMPETENT do you feel interacting with clients from diverse CULTURES during:

Area	Not at all competent	Somewhat competent	Very competent	Extremely competent
a) Audiological assessment	☐	☐	☐	☐
b) Audiological intervention	☐	☐	☐	☐
c) Counselling	☐	☐	☐	☐

16.4. With interpreter assistance, how COMPETENT do you feel interacting with clients speaking a LANGUAGE you are not competent in speaking during:

Area	Not at all competent	Somewhat competent	Very competent	Extremely competent

a) Audiological assessment	☐	☐	☐	☐
b) Audiological intervention	☐	☐	☐	☐
c) Counselling	☐	☐	☐	☐

If you would like to get a copy of the results, please provide your e-mail address:
(Not required)

Are you interested in possibly being selected to participate in a semi-structured interview on the topic?

- ☐ Yes (*continue to next section*)
- ☐ No (*submit form*)

Please provide your contact details if you are interested in possibly being selected to participate in an interview

Name: _____

E-mail Address: _____

Telephone number: _____

Thank you for completing the research survey!

Please share the survey link with other South African Audiologists and Speech-language therapist and Audiologists.

Appendix B: Semi-structured interview questionnaire

Semi-structured interview questions

SECTION A - CULTURAL AND LINGUISTIC DIVERSITY IN SOUTH AFRICA

1. What is your opinion on cultural and linguistic diversity in South Africa?

(Probing questions: Is CALD in SA positive or negative? Do you think CALD is embraced in SA? (Motivate your answer)

SECTION B - CULTURAL DIVERSITY

2. Tell me more about your experience in communicating and/or providing audiological services to clients from a different culture than your own.

(Probing questions: What were the facilitators and challenges?)

3. What is your understanding of ‘being culturally competent’?

(Probing questions: Do you think cultural competence is an acquired skill? How can it be facilitated in training of audiology students or graduates?)

4. Tell me more how you experience your work environment based on your culture?

(Probing questions: Have you ever felt discriminated against by clients in your work environment because of your culture? Have you ever felt discriminated against by co-workers in your work environment because of your culture?)

SECTION C - LINGUISTIC DIVERSITY

5. **Tell me how you experience your work environment based on having a different home language from clients, or the inability to understand or speak their home language.**

(Probing questions: Have you ever felt discriminated against by clients in your work environment because of your home language or inability to understand or speak their home language? Have you ever felt discriminated against by co-workers in your work environment because of your home language or inability to understand or speak their home language?)

6. **Tell me more about your experience in communicating and/or providing audiological services to clients from diverse linguistic backgrounds (different language than your own)?**

(Probing questions: Have you experienced any challenges in providing audiological services to these clients? How did you overcome these challenges?)

- ☐ YES
☐ NO

If yes, state and explain challenges experienced.

Answer:

7. **In your opinion, how does cultural and linguistic diversity in healthcare consultations affect an audiologist's professional confidence?**

8. **Have you ever been unable to perform any of the following audiological assessment procedures due to a language mismatch with a client?**

- ☐ Case history
☐ Otoscopy, tympanometry, acoustic reflexes
☐ Pure tone audiometric testing
☐ Bone conduction audiometric testing

- ☐ Masking (pure tone and/or bone conduction)
- ☐ Speech testing (SRT and/or SD)

If any assessment procedure selected, please explain why language mismatch prevented you from doing so.

Answer:

If any assessment procedure selected, please give your opinion about the exclusion of audiological assessment procedures (outcomes, ethical concerns etc)

Answer:

9. Have you ever taken ear impressions or removed cerumen or foreign objects, in a situation where you and a client didnot share a language?

- ☐ YES
- ☐ NO

If YES, **how confident did you feel and why?**

Answer:

If YES, **how competent did you feel and why?**

Answer:

If NO, why not?

Answer:

10. Have you ever been unable to perform any of the following audiological intervention procedures due to a language mismatch with a client?

- ☐ Hearing aid fitting: Orientation, verification, trouble shooting
- ☐ Aural rehabilitation

If either selected, please give your opinion on foreseen client outcomes.

Answer:

- 11. What techniques or solutions do you use to overcome the barriers created by linguistic diversity in healthcare consultations?**

Answer:

- 12. What other techniques or solutions do you propose to overcome the barriers created by linguistic diversity in healthcare consultations?**

Answer:

- 13. Have you ever experienced any challenges related to trained/untrained interpreters in the past?**

- ☐ YES
☐ NO

If yes, state and explain challenges experienced.

Answer:

- 14. In past instances, where a language mismatch between you and the clients were present, how confident did you feel when using an untrained/trained interpreter during healthcare consultations?**

- ☐ Not at all confident
☐ Somewhat confident
☐ Very confident
☐ Extremely confident

Please explain.

Answer:

15. In past instances, where a language mismatch between you and the clients were present, how competent did you feel when using an untrained/trained interpreter during healthcare consultations?

- ☐ Not at all competent
- ☐ Somewhat competent
- ☐ Very competent
- ☐ Extremely competent

Please explain.

Answer:

Appendix C: Ethical Clearance



Research Office

HUMAN RESEARCH ETHICS COMMITTEE (NON-MEDICAL)
R14/49 Du Venage

CLEARANCE CERTIFICATE

PROTOCOL NUMBER: H19/06/08

PROJECT TITLE

Experiences of South African audiologists providing services to a culturally and Linguistically diverse population

INVESTIGATOR(S)

Ms A Du Venage

SCHOOL/DEPARTMENT

Human and Community Development/

DATE CONSIDERED

21 June 2019

DECISION OF THE COMMITTEE

Approved

EXPIRY DATE

23 July 2022

DATE

24 July 2019

A handwritten signature in black ink, appearing to be "J Knight".

CHAIRPERSON

A handwritten signature in black ink, appearing to be "J Knight".
(Professor J Knight)

cc: Supervisor : Dr K Joubert

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 resubmit the protocol to the Committee. **I agree to completion of a yearly progress report.**

Signature

_____/_____/_____
Date

PLEASE QUOTE THE PROTOCOL NUMBER ON ALL ENQUIRIES

Appendix D: Institutional Permission - SAAA



SPEECH PATHOLOGY & AUDIOLOGY
THE SCHOOL OF HUMAN AND COMMUNITY DEVELOPMENT (SHCD)



Attention: Dr Susan Strauss

President (SAAA)

Dear DrStrauss,

RESEARCH PERMISSION LETTER TO AN INSTITUTION

As a masters student at the Department of Speech Pathology and Audiology at the University of the Witwatersrand, it is a requirement to perform and submit a research dissertation for the completion of the degree. In this study, South African audiologists' experiences and perceived professional confidence and competence - when providing services to a culturally and linguistically diverse population - will be described. This letter serves to obtain permission for the distribution of an online survey link via your institution's social media platforms, such as Facebook and/or WhatsApp groups. This will be subject to acquiring ethical clearance from the University Human Research Ethics Committee (Non-Medical).

Title

Experiences of South African audiologists providing services to a culturally and linguistically diverse population.

Research supervisor

Dr Karin Joubert, PhD

Design and procedure

This study will be conducted in South Africa's public and private healthcare sectors, educational settings, academic institutions, industries and non-government organisations. In this study, a mixed-methods approach will be used, with a sequential applied explanatory strategy. In the first phase, research participants will complete an online survey, from which the quantitative data will be collected and analysed. A secondary qualitative phase will

follow, where data will be collected by means of semi-structured interviews. The survey requires a minimum sample size of 90-100 participants.

Ethical considerations

Participation is voluntary, and participants may withdraw from the survey at any stage, or choose not to answer a question, without any disadvantages or penalties. The survey results will be confidential and anonymous, as it is not compulsory for participants to provide their names or identifying information. Should participants provide informed consent and agree to participate in the survey, they will click on the survey link provided. This link will redirect them to the survey, pertaining the experiences of South African audiologists providing services to a culturally and linguistically diverse population. Information gathered from the study will be used exclusively for the purpose of research. If the study leads to scientific publication, data will be securely retained for a period of two years and six years, if there is no publication. Following these time periods, data will be destroyed as prescribed.

Risks and benefits

There are no risks associated with the research. The research findings could propose implications such as transformation of the audiology profession in terms of cultural and linguistic representation, offering training in cultural awareness and additional languages.

If you have any concerns or complaints regarding the ethical procedures of this study, you are welcome to contact the University Human Research Ethics Committee (Non-Medical), telephone +27 (0)11 717 1408, or e-mail shaun.schoeman@wits.ac.za

If you require any additional information regarding the study, please do not hesitate to contact me or alternatively my supervisor at the contact details listed below:

Annice du Venage
anniceduv@gmail.com
081 583 5627

Karin Joubert, PhD
karin.joubert@wits.ac.za
011 717 4561

Kind regards,

Annice du Venage

Researcher

Karin Joubert, PhD

Supervisor

PERMISSION FOR SURVEY LINK DISTRIBUTION BY INSTITUTION

Herewith, I _____ permit the distribution of a survey link on the institution's social media platforms (WhatsApp and/or Facebook), for the research titled: Experiences of South African audiologists providing services to a culturally and linguistically diverse population.

Signature

Date

PERMISSION FOR SURVEY LINK DISTRIBUTION BY INSTITUTION

Herewith, I Dr. Susan Strauss permit the distribution of a survey link on the institution's social media platforms (WhatsApp and/or Facebook), for the research titled: Experiences of South African audiologists providing services to a culturally and linguistically diverse population.


Signature

1 July 2019
Date



PERMISSION FOR SURVEY LINK DISTRIBUTION BY INSTITUTION

Herewith, I Susan Strauss permit the distribution of a survey link on the institution's social media platforms (WhatsApp and/or Facebook), for the research titled: Experiences of South African audiologists providing services to a culturally and linguistically diverse population.



Signature

1 July 2019
Date



+27 (0)82 727 5977 | admin@audiologysa.co.za | www.audiologysa.co.za

Appendix E: Institutional Permission - SASLHA



SPEECH PATHOLOGY & AUDIOLOGY
THE SCHOOL OF HUMAN AND COMMUNITY DEVELOPMENT (SHCD)



Attention: Mrs Annaline Jack
Chief Executive Officer (SASLHA)

/Mrs Ursula Zsilavec
/President

To whom it may concern,

RESEARCH PERMISSION LETTER TO AN INSTITUTION

As a masters student at the Department of Speech Pathology and Audiology at the University of the Witwatersrand, it is a requirement to perform and submit a research dissertation for the completion of the degree. In this study, South African audiologists' experiences and perceived professional confidence and competence - when providing services to a culturally and linguistically diverse population - will be described. This letter serves to obtain permission for the distribution of an online survey link via your institution's social media platforms, such as Facebook and/or WhatsApp groups. This will be subject to acquiring ethical clearance from the University Human Research Ethics Committee (Non-Medical).

Title

Experiences of South African audiologists providing services to a culturally and linguistically diverse population.

Research supervisor

Dr Karin Joubert, PhD

Design and procedure

This study will be conducted in South Africa's public and private healthcare sectors, educational settings, academic institutions, industries and non-government organisations. In this study, a mixed-methods approach will be used, with a sequential applied explanatory strategy. In the first phase, research participants will complete an online survey, from which the quantitative data will be collected and analysed. A secondary qualitative phase will

follow, where data will be collected by means of semi-structured interviews. The survey requires a minimum sample size of 90-100 participants.

Ethical considerations

Participation is voluntary, and participants may withdraw from the survey at any stage, or choose not to answer a question, without any disadvantages or penalties. The survey results will be confidential and anonymous, as it is not compulsory for participants to provide their names or identifying information. Should participants provide informed consent and agree to participate in the survey, they will click on the survey link provided. This link will redirect them to the survey, pertaining the experiences of South African audiologists providing services to a culturally and linguistically diverse population. Information gathered from the study will be used exclusively for the purpose of research. If the study leads to scientific publication, data will be securely retained for a period of two years and six years, if there is no publication. Following these time periods, data will be destroyed as prescribed.

Risks and benefits

There are no risks associated with the research. The research findings could propose implications such as transformation of the audiology profession in terms of cultural and linguistic representation, offering training in cultural awareness and additional languages.

If you have any concerns or complaints regarding the ethical procedures of this study, you are welcome to contact the University Human Research Ethics Committee (Non-Medical), telephone +27 (0)11 717 1408, or e-mail shaun.schoeman@wits.ac.za

If you require any additional information regarding the study, please do not hesitate to contact me or alternatively my supervisor at the contact details listed below:

Annice du Venage
anniceduv@gmail.com
081 583 5627

Karin Joubert, PhD
karin.joubert@wits.ac.za
011 717 4561

Kind regards,

Annice du Venage

Researcher

Karin Joubert, PhD

Supervisor

PERMISSION FOR SURVEY LINK DISTRIBUTION BY INSTITUTION

Herewith, I _____ permit the distribution of a survey link on the institution's social media platforms (WhatsApp and/or Facebook), for the research titled: Experiences of South African audiologists providing services to a culturally and linguistically diverse population.

PERMISSION FOR SURVEY LINK DISTRIBUTION BY INSTITUTION

Herewith, I Ursula Zsilavetz permit the distribution of a survey link on the institution's social media platforms (WhatsApp and/or Facebook), for the research titled: Experiences of South African audiologists providing services to a culturally and linguistically diverse population.

Ursula Zsilavetz
Signature

25 July 2019
Date

Signature

Date



SASLHA
South African Speech Language Hearing Association

Local Tel : 0861 113 297
Address : P. O Box 1690 Umhlanga Rocks
4320
Email : admin@sasliha.co.za
Web : www.sasliha.co.za

25 July 2019

Ms Annice du Venage
email: anniceduv@gmail.com

Dear Anice

Request permission to send survey to members

Hereby I acknowledge receipt of your request to publish your survey to SASLHA members. Herewith, I Ursula Zsilavec permit the distribution of a survey link on the associations social media platforms. For the research titled: *Experiences of South African audiologists providing services to a culturally and linguistically diverse population.*

Kind regards

Ursula Zsilavec
President



Appendix F: Institutional Permission - National Speech Therapy and Audiology



SPEECH PATHOLOGY & AUDIOLOGY
THE SCHOOL OF HUMAN AND COMMUNITY DEVELOPMENT (SHCD)



Forum

Attention: Mrs F. Abrahams; Mrs L. Marlow

To whom it may concern,

RESEARCH PERMISSION LETTER TO AN INSTITUTION

As a masters student at the Department of Speech Pathology and Audiology at the University of the Witwatersrand, it is a requirement to perform and submit a research dissertation for the completion of the degree. In this study, South African audiologists' experiences and perceived professional confidence and competence - when providing services to a culturally and linguistically diverse population - will be described. This letter serves to obtain permission for the distribution of an online survey link via your institution's social media platforms, such as Facebook and/or WhatsApp groups. This will be subject to acquiring ethical clearance from the University Human Research Ethics Committee (Non-Medical).

Title

Experiences of South African audiologists providing services to a culturally and linguistically diverse population.

Research supervisor

Dr Karin Joubert, PhD

Design and procedure

This study will be conducted in South Africa's public and private healthcare sectors, educational settings, academic institutions, industries and non-government organisations. In this study, a mixed-methods approach will be used, with a sequential applied explanatory strategy. In the first phase, research participants will complete an online survey, from which the quantitative data will be collected and analysed. A secondary qualitative phase will

follow, where data will be collected by means of semi-structured interviews. The survey requires a minimum sample size of 90-100 participants.

Ethical considerations

Participation is voluntary, and participants may withdraw from the survey at any stage, or choose not to answer a question, without any disadvantages or penalties. The survey results will be confidential and anonymous, as it is not compulsory for participants to provide their names or identifying information. Should participants provide informed consent and agree to participate in the survey, they will click on the survey link provided. This link will redirect them to the survey, pertaining the experiences of South African audiologists providing services to a culturally and linguistically diverse population. Information gathered from the study will be used exclusively for the purpose of research. If the study leads to scientific publication, data will be securely retained for a period of two years and six years, if there is no publication. Following these time periods, data will be destroyed as prescribed.

Risks and benefits

There are no risks associated with the research. The research findings could propose implications such as transformation of the audiology profession in terms of cultural and linguistic representation, offering training in cultural awareness and additional languages.

If you have any concerns or complaints regarding the ethical procedures of this study, you are welcome to contact the University Human Research Ethics Committee (Non-Medical), telephone +27 (0)11 717 1408, or e-mail shaun.schoeman@wits.ac.za

If you require any additional information regarding the study, please do not hesitate to contact me or alternatively my supervisor at the contact details listed below:

Annice du Venage
anniceduv@gmail.com
081 583 5627

Karin Joubert, PhD
karin.joubert@wits.ac.za
011 717 4561

Kind regards,

Annice du Venage

Researcher

Karin Joubert, PhD

Supervisor

PERMISSION FOR SURVEY LINK DISTRIBUTION BY INSTITUTION

Herewith, I _____ permit the distribution of a survey link on the institution's social media platforms (WhatsApp and/or Facebook), for the research titled: Experiences of South African audiologists providing services to a culturally and linguistically diverse population.

Signature

Date

PERMISSION FOR SURVEY LINK DISTRIBUTION BY INSTITUTION

Herewith, I Farrida Abraham S* permit the distribution of a survey link on the institution's social media platforms (WhatsApp and/or Facebook), for the research titled: Experiences of South African audiologists providing services to a culturally and linguistically diverse population.


Signature

16/06/2019
Date

* On behalf of National Speech Therapy & Audiology Forum
in the Public Sector.

Please note that we do not currently have a social media platform, but you can email the link to me and I will forward it.

SPEECH THERAPY & AUDIOLOGY DEPARTMENT

CLINICAL SUPPORT

PRIVATE BAG X 6021
KIMBERLEY
8300
TEL: (063) 802 2338
FAX: 088 513 2832
EMAIL: fabrahams@ncpp.gov.za



**Robert Mangaliso
Sobukwe Hospital**

Department of Health
NORTHERN CAPE PROVINCE

TO: Whom it may concern

FROM: Ms. F. Abrahams

DATE: 29 July 2019

SUBJECT: PERMISSION FOR SURVEY LINK DISTRIBUTION BY INSTITUTION

Herewith I, Farieda Abrahams, on behalf of the National Speech Therapy and Audiology Forum in the Public Sector, permit the distribution of a survey link on the institution's social media platforms (WhatsApp and/or Facebook), for the research titled: Experiences of South African audiologists providing services to a culturally and linguistically diverse population.

Regards

A handwritten signature in dark ink, appearing to read 'F. Abrahams'.

Ms. Farieda Abrahams
Chairperson: National STA Forum

29 July 2019

Date

Appendix G: Survey - Informed consent and participant information sheet



SPEECH PATHOLOGY & AUDIOLOGY
THE SCHOOL OF HUMAN AND COMMUNITY DEVELOPMENT (SHCD)



Participant Information Sheet and Informed Consent

Survey

Participant Information Sheet and Informed Consent Form

Experiences of South African audiologists providing services to a culturally and linguistically diverse population

Dear Audiologist,

My name is Annice du Venage and I am an Audiology Masters student from the University of the Witwatersrand. The degree requires completing a research dissertation. The aim of this study is to describe South African audiologists' experiences of providing services to a culturally and linguistically diverse population.

As part of this study, I would like to invite you, as a HPCSA registered audiologist or dually qualified speech-language therapist and audiologist, to kindly participate in phase one of this study. Phase one involves the completion of an online survey and phase two, one-on-one interview.

The survey will take approximately 15 minutes to complete.

Participation is voluntary and you may withdraw from the survey at any stage, or choose not to answer a question, without any disadvantages or penalties. The survey results will be confidential and anonymous as it is not compulsory to provide your name or identifying information. If you give informed consent and agree to participate in the survey, please click on the link provided, this will redirect you to the survey regarding the experiences of South African audiologists providing services to a culturally and linguistically diverse population.

Phase two of the study will involve one-on-one interviews with purposively selected participants. In the survey (quantitative phase), participants will be asked whether they are willing to be interviewed by the researcher. If you indicate that you are interested in participating in a semi-structured interview on the topic, there is a possibility that you will be contacted. Participants will be selected based on languages spoken, culture and work environment as to gain deeper and varied insight about the topic.

Information gathered from the study will be used exclusively for the purpose of research. If the study leads to scientific publication, data will be securely retained for a period of two years and six years if there is no publication. Following these time periods, data will be destroyed accordingly.

The completed research report will be available online through the University of the Witwatersrand's library website. A summary of this research report will be available via e-mail upon request.

If you require any additional information prior to, or during your participation of the study, please do not hesitate to contact me or my supervisor on the details listed below.

If you have any concerns or complaints regarding the ethical procedures of this study, you are welcome to contact the University Human Research Ethics Committee (Non-Medical), telephone +27 (0)11 717 1408, e-mail shaun.schoeman@wits.ac.za

Kind regards,

Annice du Venage (Researcher)

anniceduv@gmail.com

Karin Joubert, PhD (Supervisor)

karin.joubert@wits.ac.za

011 717 4561

Appendix H: Interview - Informed consent and participant information sheet



SPEECH PATHOLOGY & AUDIOLOGY
THE SCHOOL OF HUMAN AND COMMUNITY DEVELOPMENT (SHCD)



Participant Information Sheet

Semi-structured interview

Experiences of South African audiologists providing services to a culturally and linguistically diverse population

Dear Audiologist,

My name is Annice du Venage, an Audiology Masters student from the University of the Witwatersrand. The degree requires the completion of a research dissertation. The aim of this study is to describe South African audiologists' experiences of providing services to culturally and linguistically diverse populations (CALD).

As part of this study, I would like to invite you to participate in the second phase of this study. In this phase, one-on-one interviews will be conducted with selected participants. This interview will include questions covering various aspects of providing audiological services to a CALD population and will take around 45 minutes to complete. With your permission, I would like to record the interview using a recording device.

Participation is voluntary and you may withdraw from the interview at any stage, or choose not to answer a question, without any disadvantages or penalties. The interview results will be confidential as information obtained from you will be kept securely and not disclosed to any individuals other than my research supervisor. Your participation will be anonymous and represented by using a pseudonym (false name) in my final report.

Information gathered from the study will be used exclusively for research. If the study leads to scientific publication, data will be securely retained on a password protected

computer for a period of two years and six years if there is no publication. Following these time periods, data will be destroyed accordingly.

The completed research report will be available online through the University of the Witwatersrand's library website. A summary of this research report will be available via e-mail upon request.

If you require any additional information prior to, or during your participation of the study, please do not hesitate to contact me or my supervisor on the details listed below.

If you have any concerns or complaints regarding the ethical procedures of this study, you are welcome to contact the University Human Research Ethics Committee (Non-Medical), telephone +27 (0)11 717 1408, e-mail shaun.schoeman@wits.ac.za

Kind regards,

Annice du Venage (Researcher)

anniceduv@gmail.com

Karin Joubert, PhD (Supervisor)

karin.joubert@wits.ac.za

+27 (0)11 717 4561



SPEECH PATHOLOGY & AUDIOLOGY
THE SCHOOL OF HUMAN AND COMMUNITY DEVELOPMENT (SHCD)



Informed Consent Form

Semi-structured interview

Title of project: Experiences of South African audiologists providing services to a culturally and linguistically diverse population

Researcher: Annice du Venage

I _____, agree to participate in this research project. The research has been explained to me and I understand what my participation will involve.

Please circle the relevant options below:

1) I agree that my participation will remain confidential YES NO

2) I agree that the researcher may use anonymous quotes in her research reports YES NO

3) I agree that the interview may be audio recorded YES NO

4) I agree that the information I provide may be used anonymously by other researchers following this project YES NO

Participant signature

Name of participant

Date

