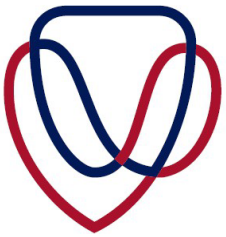

LANGUAGE MATTERS: EXPLORING THE LANGUAGE BARRIERS BETWEEN DIETITIANS AND MOTHERS DURING NUTRITION COUNSELLING RELATED TO THE FIRST 1000 DAYS OF LIFE

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Dissertation submitted in accordance with the academic requirements for the Degree: Masters in Dietetics in the School of Health and Rehabilitation Sciences in the Faculty of Health Sciences

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04 December 2023

RESEARCHER DECLARATION

"I, Phozia Jansen, declare that the master's degree research dissertation that I herewith submit for the master's degree qualification in Nutrition and Dietetics at the University of the Free State is my independent work, and that I have not previously submitted it for a qualification at another institution of higher education."

DEDICATION

I dedicate this body of work to God, first and foremost. Thank you for your grace and second chances.

“And whatever you ask in prayer, you will receive, if you have faith” – Matthew 21:22.

I dedicate this body of work to every single person, who helped me along the way. “These promises will always materialize if you work for them.”

ACKNOWLEDGEMENTS

I would like to thank the following people, without whom I would not have been able to complete this research, and without whom I would have not made it through my master's degree.

- I would like to thank God for the strength, and resilience to complete this research study.
- I would like to express my sincere gratitude to my study supervisors Dr Lucia Meko and Prof. Louise van den Berg for their motivation, continuous input and sharing their knowledge with me.
- Dr Lucia Meko has been instrumental in inspiring me to pursue this study topic.
- I wish to show my appreciation to the UFS Postgraduate School and Department of African Languages (Faculty of Humanities) for the financial funding.
- I would like to thank the Free State of Health and associated institutions for allowing me to conduct my research at your institutions.
- I wish to extend my sincere gratitude to all the dietitians participated in this study.
- I wish to thank my brother and sister, Delvin and Bianca Jansen for their support and encouragement.
- I would like to express my sincere gratitude to Colin Mora for his continuous support and motivation.
- I would like to thank all the people at the Department of Dietetics, Department of Health and the Department of Education who helped me along the way.

ABSTRACT

Introduction

South Africa is a rich melting pot of culturally and linguistically diverse citizens. Historically, the development of indigenous South African languages has been stunted while English and Afrikaans were prioritized. There has been a growing concern by healthcare professionals to serve linguistically diverse patients. Dietitians often do not share the same language as their patients. The role of language is particularly important in nutrition education and assists in achieving behavioural change.

The double burden of malnutrition is a serious public health concern. The first 1000 days of life refers to the critical period of development between conception and two years of age. Adequate nutritional care is invaluable during this period; without it, poor health outcomes will track into adulthood. Nutrition education is essential in addressing the double burden of malnutrition during the first 1000 days of life. It is well known that language barriers may lead to ineffective communication between dietitians and patients. Therefore, this study aimed to determine the language barriers between dietitians and Sesotho-speaking mothers during dietetic consultations related to the first 1000 days of life.

Methods

A phenomenological qualitative study design was used. A total of 22 dietitians were interviewed at ten public health institutions in the Free State province. The study involved unpacking the dietitians' lived experiences and collecting data through conversational interviewing techniques. The interviews were voice-recorded and transcribed verbatim. The data was analysed and three major themes, with subthemes, were identified.

Results

Most participants were White Africans who spoke Afrikaans as their first language; the rest were Black Africans and spoke various indigenous South African languages. Many reported experiencing language barriers, including, amongst others, dietitians lacking proficiency in Sesotho, the predominantly spoken local language.

Other issues included mothers lacking proficiency in English or Afrikaans and some Sesotho-speaking mothers' resistance to receiving healthcare services in English. The role of power

and privilege in language was also highlighted. Furthermore, the dietitians reported difficulty in explaining nutrition concepts in Sesotho. Strategies were identified to overcome the language barriers, including interpreters, visual aids, codeswitching, language learning and nutritional education in Sesotho.

Conclusion

Despite the country's eleven official languages, there is limited research on language barriers in healthcare within the South African context. This study provides evidence of language barriers experienced by dietitians and mothers of young children in a Free State public health setting and highlights that practical solutions are crucial to ensure the success of healthcare interventions as language barriers between dietitians and mothers result in communication gaps, which impact nutrition outcomes, particularly in the first 1000 days of life. It is recommended that the research be repeated for different professions and indigenous languages to explore the true complexity of language barriers in the South African healthcare system. The study also highlights the lack of research regarding appropriate Sesotho nutrition and medical terminologies. Therefore, this study provided a rationale for developing a Sesotho nutrition glossary.

Keywords: language barriers; malnutrition; dietitians; communication; nutrition education; indigenous languages; health education; health disparities; intercultural communication, health communication.

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GLOSSARY

Term	Definition and supporting citation
Codeswitching	Codeswitching is a linguistic technique where speakers change between two languages in a single sentence or conversation (Wood, 2019)
Double burden of malnutrition	The coexistence of undernutrition and overnutrition at all levels of the population (Haddad et al., 2015)
First 1000 days of life	The critical period of development between conception and two years of age (Victora et al., 2008)
Interpreter	A person who provides an oral translation between speakers who speak different languages (Collins Dictionary, 2022)
Overnutrition	Refers to overweight and obesity (Haddad et al., 2015)
Caregivers	Refers to mothers, guardians, or other family members responsible for caring for and feeding the child (Arikpo et al., 2018)
Undernutrition	Refers to wasting, stunting and micronutrient deficiencies (Haddad et al., 2015)
Wasting	In children under five, wasting is a marker of acute malnutrition defined as a weight-for-height- z-score below –2 SD median of the WHO Growth Standards (Victora et al., 2021)
Stunting	In children under five, stunting is a marker of chronic undernutrition caused by insufficient nutrient and energy intake over an extended period. It is defined as a height-for-age-z-score more than two standard deviations below the WHO growth standards (Victora et al., 2021)

LIST OF ABBREVIATIONS

Acronym	Definition
CHW	Community Health Worker
CoPAL	The Community of Practice for the Teaching and Learning of African Languages
DOH	Department of Health
HCP	Health Care Professional
HPCSA	Health Professions Council of South Africa
HR	Human Resources
IMAM	Integrated Management of children with Acute Malnutrition
IMCI	Integrated Management of Childhood Illnesses
IYC	Infant and Young Children
IYCFP	Infant and Young Child Feeding Policy
LMIC	Low-income and middle-income countries
MBFHI	Mother to Baby Friendly Hospital Initiative
NDOH	National Department of Health
PMTCT	Prevention of Mother to Child Transmission
SADHS	South African Demographic and Health Survey
SDGs	Sustainable Development Goals
Stats SA	Statistics of South Africa
UCT	University of Cape Town
UFS	University of the Free State
UN	United Nations
UWC	University of the Western Cape
WHA	World Health Assembly
WHO	World Health Organization

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CHAPTER 1: INTRODUCTION

In chapter one, the researcher demonstrates the purpose and rationale behind the research study. The reader is introduced to the study topic, the problem statement and the aims and objectives of the study.

1.1. Background of the study

South Africa is a rich melting pot of culturally and linguistically diverse citizens (Benjamin et al., 2016). In a society with 44 living languages, of which eleven are official, there has been a growing concern among healthcare professionals (HCPs), to serve linguistically diverse patients (Evans et al., 2018; Flood & Rohloff, 2018). HCPs are responsible for providing patient-centred healthcare regardless of the patient's language proficiency (Granhagen Jungner et al., 2019). However, HCPs often do not share the same language and culture as their patients. This results in patients receiving medical care that is not communicated in their home language (Kilian et al., 2021; Levin, 2014).

Communication is the transfer of information between people (Sagi et al., 2021). Good communication is acknowledged as the cornerstone of successful medical care (Granhagen Jungner et al., 2019; Jager et al., 2020). Inherent in the social and cultural fabric of societies, language is a necessary component of communication (Sagi et al., 2021). The role of language is particularly relevant in health interventions and, therefore, may assist in achieving behaviour change (de Moissac & Bowen, 2019; Hussey, 2012).

Language and culture exist synergistically and cannot be separated (Levin, 2014). Overcoming language barriers is particularly difficult in countries with linguistically and culturally diverse populations (de Moissac & Bowen, 2019). For this reason, cultural competence, which entails effective engagement and awareness of different cultural groups, is a critical component in health care. The main source of understanding culture is rooted in language, because cultural nuances are shared through language (Levin, 2014; Mohamed et al., 2019). Language disparities and a lack of cultural competence may lead to ineffective communication between HCPs and patients (Jager et al., 2020; Hussey, 2012). Therefore, the role of language in healthcare and the need for cultural competency among HCPs is essential for effective communication in HCP-patient relationship (Jager et al., 2020).

The use of English as the main language of communication by HCPs in public health institutions in South Africa is noteworthy (Benjamin et al., 2016; Kilian et al., 2021), since ten of the eleven official languages are indigenous African languages (STATS SA: 2019). In addition, a new constitutional amendment will be enacted to make Sign Language the 12th official language in South Africa, once the president signs the Bill into law (Parliament of the RSA, 2023). Consequently, many patients in South Africa are not proficient in English and often do not communicate well with their HCPs (Kilian et al., 2021). Therefore, addressing the linguistic component in health interactions should be prioritised, as communicating health information using the patients' indigenous languages is more likely effective (Flood & Rohloff, 2018).

Health disparities resulting from poor health outcomes stem from structural constructs of colonisation, poverty, and marginalisation (Anderson et al., 2016; Flood & Rohloff, 2018). In South Africa, these disparities were attributed to Apartheid (Levin, 2006), a system of institutionalised segregation and legalised racism against all non-White citizens in South Africa from 1948 to 1991. Under the rule of the Apartheid government, non-White citizens, most especially Black Africans, were subjected to unfair treatment, and racial segregation extended to a political, societal, and economic extent (SAHO, 2023). South Africa's indigenous languages were deemed inferior and did not receive equal parity to English and Afrikaans (Finlayson & Madiba, 2002; Moodley & Dlamini, 2021).

The double burden of malnutrition is a serious issue for public health (WHO Brief, 2016), with maternal and child malnutrition being a major contributor, particularly in countries classified as low-to-middle income (LMIC) (Victora et al., 2021). Globally, one in three people suffer from one or more forms of malnutrition, i.e., over- and undernutrition and micronutrient deficiencies (United Nations SDGs Agenda, 2015). The coexistence of undernutrition (micronutrient deficiencies, stunting, and wasting) and overnutrition (overweight and obesity) at all population levels—national, community, household, and individual—is known as the double burden of malnutrition (WHO Brief, 2016).

Global nutrition targets intended to address the double burden of malnutrition were part of a comprehensive implementation plan on maternal and early childhood nutrition that was approved by the 65th World Health Assembly (WHA) in 2012 (United Nations SDGs Agenda, 2015). The Sustainable Development Goals (SDGs), formulated in 2015, drew inspiration from

the WHA aims (UNICEF, 2019). The 17 SDGs constitute a global development agenda designed to address the world's economic, environmental, and political challenges (Atukunda et al., 2021). Zero hunger and nutrition are the focus of the second SDG. Through fostering food security and good nutrition, the second SDG seeks to eradicate malnutrition in all of its manifestations by 2030 (United Nations SDGs Agenda, 2015).

Litre et al. (2022) argued that the SDGs may be getting lost in translation due to the absence of indigenous languages in health education in Africa Consequently, the absence of terminology in indigenous African languages accompanied with the COVID-19 pandemic's effects, and the inadequate provision of key nutrition services have all contributed to the SDGs' further delay in progress (Global Nutrition Report, 2021; Litre et al., 2022).Furthermore, the COVID-19 pandemic raised awareness that communities speaking indigenous African languages rather than English, which predominates in communications on global health, frequently had limited access to timely, high-quality health information (Litre et al., 2022).

In addressing the SDGs, one of the key issues particularly relevant to the South African setting is nutrition education on mother and child health. The Lancet series on undernutrition in mothers and children recognised the need to concentrate on the first 1,000 days of life (Victora et al., 2008), which refers to the critical development period between conception and two years of age (Adebiyi et al., 2021; Victora et al., 2008). This window period has been shown to have the greatest potential influence on health outcomes into adulthood. Poor nutrition during the first 1000 days of life increases the incidence of malnutrition, which, in turn, leads to a reduction in mental and academic capacity and the development of diseases later in life (Adebiyi et al., 2021; Victora et al., 2008).

South Africa has made strides towards combating malnutrition during the first 1000 days of life by upscaling health initiatives and interventions (English et al., 2017). Through legislative support, the First 1000 Days of Life initiative is supported by South Africa's National Integrated Early Childhood Development Policy (NDOH, 2015). Policies aimed at eradicating the double burden of malnutrition during the first 1000 days of life include the IMAM, BANC, MBFHI, IYCF, and IMCI policies (NDOH, 2013). Additional interventions to address malnutrition include social grants and feeding programmes such as the Nutritional Supplementation Programme (NDOH Roadmap for Nutrition, 2013).

Nutrition education has been shown to significantly contribute towards eradicating the

double burden of malnutrition (Kajjura et al., 2019; Mistry et al., 2019; Permatasari et al., 2021; Rahman et al., 2016). Nutrition education should be used in combination with government interventions such as policy backing and improving socioeconomic disparities of poverty and unemployment (Erzse et al., 2021). While there is no doubt about the importance of educating mothers on the role and importance of nutrition during the first 1000 days, the transfer of such knowledge is complicated when the HCP and the mother do not share a common language.

Research has demonstrated that decreased understanding of the proposed treatment, due to language barriers between the HCP and caregivers or parents, impairs parents' roles of caring for their child (Coetzee et al., 2015; Granhagen Jungner et al., 2019). A study that was conducted on mothers and HCPs working in a neonatal intensive care unit in Sweden where language barriers existed found that the mothers characterized health communication as stressful and fraught with misunderstanding (Kynoe et al., 2020). The mothers experienced less emotions of fear and loneliness after developing a trusting relationship with the HCPs (Kynoe et al., 2020). Similarly, de Moissac & Bowen (2019) reiterated that patients who have experienced language barriers have also reported feeling more anxious and less confident in the healthcare intervention.

A lack of language mutuality between patients and HCPs is the main cause of miscommunication and negatively affects outcomes for both the patient and the HCP (Al Shamsi et al., 2020). Patients also experienced a weakened comprehension of their diagnosis and a higher chance of experiencing medical adverse effects (Al Shamsi et al., 2020; de Moissac & Bowen, 2019). Language barriers impede the provision of an adequate description of disease symptoms and necessitate further diagnostic testing (de Moissac & Bowen, 2019). Research has shown higher mortality rates among non-English speaking indigenous people compared to non-indigenous groups (Anderson et al., 2016).

1.2. Problem statement

Communication and language barriers exist in all health disciplines (Bauer & Liou, 2012), and often, the language in which the dietitian and their patients are comfortable communicating frequently differs (Parker et al., 2013). Consequently, language barriers in healthcare continue to negatively impact health interventions and outcomes (van den Berg, 2016). The ideal is for institutions to employ HCPs who are already culturally and linguistically compatible with the patients in their respective environments (Hussey, 2012).

From a legal standpoint, the importance of language use between HCPs and patients is well recognised and acknowledged in official South African laws and documents (HPCSA, 2022; Statues of the Republic of South Africa, 1993). The Patients' Rights Charter states that patients have a right to receive healthcare in their preferred language (Benjamin et al., 2016; NDOH, 1999). The South African Bill of Rights documents that every citizen of South Africa is entitled to access health services in their language of choice (South African Parliament et al., 1996). The National Health Act states that HCPs should provide health care and health information in the patient's own language (HPCSA, 2022).

The training of dietitians in South Africa has always occurred at universities in English and Afrikaans. Historically, there was a lack of qualified dietitians from Black African backgrounds due to past inequalities (Kamwangamalu, 2004; Parker et al., 2013), it is, therefore, not surprising that many South African dietitians cannot communicate in an indigenous African language (Parker et al., 2013). However, the problem is less racial now that more Black dietitians are being trained but rather the fact that South Africa has eleven official languages that are spoken across the country (Stats SA, 2022). Therefore, dietitians often need to communicate with mothers who speak a language other than their own, which necessitates them to rely on English as a medium of communication (Kilian et al., 2021).

Throughout Apartheid, indigenous languages were intended to serve as tools for dividing the Black community into conflicting and competitive ethnic groups (Finlayson & Madiba, 2002; Moodley & Dlamini, 2021). Despite the adoption of eleven official languages in SA, English has remained the dominant medium of instruction in institutions in comparison to indigenous languages (Kamwangamalu, 2004; Kaplan, 2008; Wildsmith-Cromarty, 2019). Therefore, post-apartheid, the need to intellectualise indigenous languages has come to light (Finlayson &

Madiba, 2002; Moodley & Dlamini, 2021).

Parity in the calibre of healthcare and safety for patients who speak indigenous languages will continue to be in jeopardy until the burden of language barriers is addressed. The healthcare system should strengthen its efforts to recognise and address the effects of language barriers as well as create and execute appropriate solutions and practice strategies to alleviate them (de Moissac & Bowen, 2019). Globally, there is a substantial corpus of literature which evaluates language barriers in the healthcare systems (Anderson et al., 2016; Kilian et al., 2021; Levin, 2014; de Moissac & Bowen, 2019; Theys et al., 2022). However, limited research exists on interventions that can be used to help overcome these language barriers and the associated efficacy of these interventions (Mohamed et al., 2019).

Currently limited research on the lingua-cultural barriers in healthcare is available in South Africa. Despite the country having 11 official languages, research has mostly focused on communication between English, Xhosa, and Afrikaans speakers (van den Berg, 2016). Many dietitians are not proficient in the language of their patients (Parker et al., 2013), and there is a lack of trained medical interpreters in South Africa (Kilian et al., 2021). Unfortunately, the true complexity of the impact of language barriers on the healthcare system is often overlooked by HCPs, government officials and policymakers (Hussey, 2012). The WHO has made a call to governments, health systems and health workers to liaise to improve the quality of healthcare services at all levels (WHO, 2023).

1.3. Research question

What are the language barriers between dietitians and mothers of infants and young children (IYC) during dietetic consultations related to the first 1000 days of life?

1.4. Aims and Objectives

1.4.1. Aims

This study aimed to determine the language barriers between dietitians and mothers of IYC during nutrition consultations related to the first 1000 days of life.

1.4.2. Objectives

In order to fulfil the study's aim, the following research objectives were formulated:

- To investigate the language barriers between dietitians and Sesotho-speaking mothers of IYC.
- To determine the impact of language barriers on HCP-patient interactions.
- To identify proposed solutions to language barriers experienced by dietitians and mothers of IYC.

1.5. The layout of the dissertation

Chapter one of the dissertation outlines the introduction to the study topic, background, and problem statement. It includes the aim and objectives of the study. Chapter two is the literature review, which provides in-depth insight into the research topic. Chapter three discusses the research methodology, including the research paradigm, study design, sampling, data collection and analysis process, and summarises the ethical considerations of the study. Chapter four concerns the research results, and chapter five is the discussion. Chapter six concludes the study and describes recommendations for future research.

CHAPTER 2 LITERATURE REVIEW

In Chapter two, the researcher discusses current knowledge and associated concepts regarding the language barriers in healthcare.

2.1. Dietitians' role in nutrition education and communication

Dietitians are HCPs who are qualified experts on diet and nutrition that assess and diagnose dietary-related problems on an individual and group level (HPCSA, 2023). They are responsible for the dietary management of diseases and facilitate patients' adherence to dietary advice (Jager et al., 2020). Nutrition education is an integral part of medical nutrition therapy and is used by education to facilitate behaviour change and treat illnesses (HPCSA, 2023; Ramesh et al., 2019, Scott, 2020). Within the dietetics profession, nutrition and medical knowledge are applied to implement and maintain healthy nutritional practices for all healthcare institutions and research fields (HPCSA, 2023).

The main purpose of dietitians is to translate nutrition knowledge into a positive health outcome (HPCSA, 2023; Ramesh et al., 2019), so if failure to communicate health messages effectively, dietetic interventions are likely deemed ineffective and fruitless (Ramesh et al., 2019). Therefore, dietitians should take extra care to exhibit clarity and conciseness in communicating nutrition messages and ensuring that patients understand (Jager et al.; Ramesh et al., 2019). Special consideration should also be taken to avoid unnecessary and complex medical words and terminology unsuited to meet the patients' level of comprehension and understanding (Ramesh et al., 2019).

Effective communication is required for nutritional education and counselling (HPCSA, 2023; Ramesh et al., 2019, Scott, 2020).The WHO (2020) has outlined the following six principles as the critical aspects of effective health communication. Health communication should be accessible, understandable, actionable, credible, relevant, and timely (WHO, 2020). More specifically, health communication should be tailored to the target population, conversed in plain language, and in a language familiar to the patient (WHO, 2020; Rural Health Information, 2018).

Nutrition education is a form of health communication which is used to educate and persuade people and communities to make healthier choices in response to illnesses (HPCSA, 2023; Ramesh et al.). Health communication is the most important tool utilised by dietitians to understand, diagnose, and treat patients (Ramesh et al., 2019). Moreover, health communication strategies aid in reinforcing positive health behaviour and it involves systematic and planned application of educational techniques and tools. such as health education pamphlets, videos, lectures, visual aids, and electronic media (Sharma, 2022).

2.2. The first 1000 days of life and the double burden of malnutrition

There is a necessity for dietitians, nutritionists, and other health professionals to contribute consistent efforts towards eradicating the double burden of malnutrition, especially during the first 1000 days of life (Scott, 2020). The "first 1000 days of life" is regarded as a crucial developmental stage between conception and two years of age (Victora et al., 2008). It is a period where rapid growth and neurodevelopment are established. Inadequate nutrition and dietary patterns in the first 1000 days may lead to protein, energy, and micronutrient deficiencies. These dietary patterns and inadequate nutrition can result in overnutrition, leading to overweight, obesity, and undernutrition, including wasting and stunting during infancy (English et al., 2017; Victora et al., 2021).

Maternal and childhood nutrition during the first 1000 days is a major contributor to the double burden of malnutrition, particularly in developing countries (Victora et al., 2021). Maternal nutrition relates to dietary practices during pregnancy and lactation. Poor nutrition during these periods negatively affects the growth and development of the child (English et al., 2017; Victora et al., 2021). Childhood nutrition relates to dietary practices from birth throughout childhood (reference). Childhood obesity is a global epidemic, and the impact of early nutrition is significant (Felicia et al., 2020).

Undernutrition, food insecurity, and diets lacking in essential micronutrients are predictors of obesity, liver diseases and NCDs, such as cardiovascular diseases later in life (Felicia et al., 2020; Swinburn et al., 2019). The link between malnutrition in the first 1000 days and decreased life span and cognitive development is well established. Additional adverse outcomes of inadequate nutrition in the first 1000 days are decreased academic capacity, reduced earning potential and an increased risk of developing acute and chronic diseases such as obesity, diabetes, and certain cancers (Haddad et al., 2015; Pandey et al., 2017; Victora et

al., 2021).Breastfeeding and appropriate complementary feeding during the first two years of life decrease the risk of childhood diseases (Victora et al., 2021; WHO, 2018). The WHO recommends that children be exclusively breastfed for six months after birth and ensure continued breastfeeding until two years and beyond (WHO, 2018). In South Africa, the exclusive breastfeeding rate for infants was 32% in 2016 (SADHS Key Findings, 2016). According to the WHO Breastfeeding Policy Brief (2014), the global aim for exclusive breastfeeding during the first six months of life is at least 50%. However, countries are far from reaching this target due to several inappropriate feeding practices.

Inappropriate feeding practices such as introducing complementary feeding earlier than six months, continue exacerbating the risk of the double burden of malnutrition (Victora et al., 2021). The WHO recommends that children are introduced to safe and appropriate complementary foods from six months of age (Garg et al., 2020; WHO, 2018). Complementary feeding is considered "the process starting when breast milk alone is no longer sufficient to meet the nutritional requirements of infants, and therefore other foods and liquids are needed, along with breast milk" (WHO, 2018). It is recommended that complementary foods be rich in nutrients and varied with sufficient energy, protein, vitamins, and minerals to meet the needs of the child (Garg et al., 2020).

Other inappropriate feeding practices include providing energy-dense complementary foods without essential nutrients such as protein, iodine, zinc, vitamin A, and iron (Lowe, 2021). Hence, a greater need exists to combat micronutrient deficiencies (Victora et al., 2021), as distinctive global data shows that children and women of reproductive age have multiple essential micronutrient deficiencies (Global Nutrition Report, 2021; Victora et al., 2021; WHO, 2018).

2.2.1. Other contributors of the double burden of malnutrition

In addition to inappropriate feeding practices, other environmental and socioeconomic factors may contribute to the double burden of malnutrition (Erzse et al., 2021; Victora et al., 2021). Environmental factors contributing to the double burden of malnutrition include poor hygiene practices and poor access to water and sanitation.

At the same time, socioeconomic factors contributing to the double burden of malnutrition include poverty, poor socioeconomic status, and food insecurity (Erzse et al., 2021; Victora et al., 2021). Furthermore, the COVID- 19 pandemic further worsened the prevalence of malnutrition in children (Victora et al., 2021). In addition, several maternal factors predispose infants and children to malnutrition (Pandey et al., 2017). Maternal nutritional status, spacing between pregnancies, maternal age at the time of childbirth, antenatal care, breastfeeding and complementary practices, and disease management are all maternal factors which impact the double burden of malnutrition (Pandey et al., 2017). Adequate and appropriate health and nutrition education during and after pregnancy is crucial in reducing the incidence of malnutrition among infants and young children (Pandey et al., 2017; WHO, 2019).

2.2.2. Solutions towards the eradication of the double burden of malnutrition

The WHO has made a call to governments to ensure multisectoral collaboration across various stakeholders to eradicate the double burden of malnutrition. These stakeholders include healthcare, social, political, and agriculture departments. Various strategies and interventions have been identified to address the double burden of malnutrition (Atukunda et al., 2021; WHO, 2020). In terms of healthcare, it was deemed important to strengthen the provision of healthcare services across the life cycle through interventions that target behaviour change such as nutrition education (WHO, 2019). More specifically, the care of women and children has been prioritized (Global Nutrition Report, 2021).

The WHO (2019) reiterated that the promotion and support of breastfeeding is important. Nutrient supplementation of mothers and children, along with adequate and appropriate healthcare services, was also highlighted. These healthcare services included appropriate care during pregnancy, screening for malnutrition, treatment of diseases and nutrition education (WHO, 2019).Mothers play an integral role in eradicating malnutrition, as they control access to food and healthcare and determine the dietary practices within the household. Parenteral feeding procedures and role modelling have an impact on childhood food preferences and eating behaviours, as Scott (2020) reaffirmed. Likewise, if a mother is malnourished, the child is more likely to be malnourished as well (Clarke et al., 2021).

Nutrition education given to mothers has a positive effect on children's nutritional status (Mkhize & Sibanda, 2020). A large body of evidence has emphasised the importance of

nutrition education and its integral role in empowering mothers to make better dietary decisions for themselves and their children (Kajjura et al., 2019; Mistry et al., 2019; Permatasari et al., 2021; Rahman et al., 2016). More so, nutrition education has been shown to be effective when it is communicated in the mothers' home language (Kajjura et al., 2019).It is important to take cognizance that healthcare services cannot be carried out without health communication. Health communication is linked to language, and the two cannot function in isolation (Hussey, 2012). Therefore, language disparities in healthcare do impact the efforts made towards the eradication of the double burden of malnutrition (Ramesh et al., 2019).

2.3. The role of intercultural communication and globalisation in nutrition education

Addressing the causes of malnutrition during the first 1000 days requires an understanding of the factors predisposing mothers and infants to it (Kajjura et al., 2019; Scott, 2020). In the field of nutrition and dietetics, the nutrition care process (NCP) is comprised of four stages, namely nutrition assessment, diagnosis, intervention, and evaluation (Charney & Steiber, 2017). Nutrition communication is required throughout the NCP; in many instances, this communication is an intercultural one (Jager et al., 2020).

Intercultural communication refers to interaction between people whose cultural perceptions and backgrounds differ enough to influence the interaction (Jackson, 2019). Language is a critical component in intercultural communication and is a key to understanding culture and cultural nuances of people (Levin, 2014; Mohamed et al., 2019). Appropriate intercultural communication ensures that different cultural groups can engage effectively to comprehend the intended message (Jackson, 2019; Mohamed et al., 2019). Therefore, language barriers and a lack of cultural competence often cause ineffective intercultural communication (Jackson, 2019; Jager et al., 2020).

Furthermore, language barriers affect the quality of dietetics consultations (de Moissac & Bowen, 2019; Habib et al., 2023), as effective nutrition education needs to consider dietary practices and the role that culture plays in food and lifestyle choices (Jager et al., 2020). Dietitians often provide individualised nutrition education, and this nutrition plan needs to consider all the factors related to food choices and dietary practices. such as food choices, portion sizes, meal patterns and food preparation methods (Charney & Steiber, 2017; Jager et al., 2020). All these factors are influenced by people's culture (Jager et al., 2020).

Prior to conducting nutrition education, dietitians must conduct a nutrition assessment to identify the patients' nutrition problems (Charney & Steiber, 2017). The nutrition assessment process requires dietitians to collect data such as medical, diet and lifestyle history (Charney & Steiber, 2017). Dietitians may find it challenging to determine an accurate diet history of their patients in the presence of language barriers (Jager et al., 2020)., therefore, tailoring dietary advice becomes complicated (Jager et al., 2020). Dietitians may find it challenging to implement the NCP if they do not understand patients' on a cultural and linguistic level (Ramesh et al., 2019; Jager et al., 2020). Jager et al. (2020) reported that dietitians often have trouble explaining important pathophysiology of diseases due to language barriers. In addition, it was reiterated that dietitians may find it difficult to build a trusting relationship with patients from a different linguistic and/or cultural group (Jager et al., 2020).

In a study conducted by Jager et al., (2020), in the Netherlands on twelve dietitians working with migrant (foreign) patients, language and cultural barriers were dominant (Jager et al., 2020). Dietitians in this study felt that the dietetic care rendered to patients with cultural and linguistic differences was less effective, and these patients tended to default appointments. The lack of cultural competence was also highlighted as dietitians expressed difficulty with obtaining information on culturally influenced ideas concerning health. Due to this difficulty, the dietitians avoided asking patients culturally charged questions, which would have otherwise been useful to know (Jager et al., 2020). Ramesh et al., 2019 & de Moissac & Bowen, 2019 mirrored similar sentiments and reported that lack of cultural competence compromises health outcomes.

The movement of people from different ethnicities and cultures across countries as part of globalisation (Jackson, 2019; Squires, 2018) has led to the influx of foreigners into countries. Globalisation has expanded the cultural and linguistic needs of health care systems (Flood and Rohloff, 2018; Squires, 2018), thereby intensifying the cultural, linguistic, and social ties within countries (Jackson, 2019). Ineffective intercultural communication heightened by globalisation and driven by language barriers will likely lead to poor nutrition outcomes (de Moissac & Bowen, 2019; Jackson, 2019; Jager et al., 2020).

2.4. Overview of the eleven official languages in South Africa

Under Apartheid rule, the country's main languages were Dutch, English, and Afrikaans, whilst indigenous South African languages were spoken by most of the country's population but were blatantly ignored (Alexander, 2018). Post 1996, SA's new constitution committed to prioritizing indigenous South African languages (Alexander, 2018; Moodley & Dlamini, 2021). South Africa's constitution recognizes eleven official languages: Sepedi, Sesotho, Setswana, Swati, Tshivenda, Tsonga, Afrikaans, English, Ndebele, Xhosa and Zulu. The multilingual population mostly speaks at least two South African languages fluently. Zulu and Xhosa are the most dominantly used languages in the country (Stats SA, 2022).

The nine South African indigenous languages are broadly divided into the Nguni-Tsonga and the Sotho-Makua-Venda languages. The Nguni-Tsonga languages are Ndebele, Xhosa, Zulu, Seswati, and Xitsonga; the Sotho-Makua-Venda languages are Sesotho, Sepedi, Setswana, Tshivenda. Sesotho, Sepedi, and Setswana are closely associated with the Sotho languages. Tshivenda is somewhat of an independent dialect in the Sotho-Makua-Venda subfamily. Multilingualism is common among Black South Africans. While most English- and Afrikaans-speaking people (i.e., Coloured, Indian, and White South Africans) usually lack proficiency in the indigenous languages of South Africa (Alexander, 2018). Table 2.1. demonstrates a summary of the country's eleven official languages.

Table 2-1 Summary of the eleven South African Languages (Alexander, 2018)***.***

English	In 1910, English and Dutch were designated as the official languages of South Africa, a designation they have held ever since. The primary language of South Africa, English is frequently utilized in official contexts involving commerce, government, academia, and the media
Afrikaans	The Dutch brought Afrikaans to South Africa in 1652 when they first settled at the Cape of Good Hope. A Dutch dialect from the 17th century gave rise to the language. In 1925, Afrikaans was recognized as an official language in South Africa
Sesotho	The majority language used in the Free State is Sesotho, sometimes known as Southern Sotho. Together with Sepedi and Setswana, it is one of the three languages of the Sotho people
Sepedi	The language known as Northern Sotho, or Sesotho sa Leboa, was designated as such in the 1993 interim Constitution. After that, it was altered to Sepedi in the 1996 final Constitution. The issue is debatable because many people believe that Sepedi is a dialect, and that Sesotho sa Leboa is the proper name. After Zulu and Xhosa, Sepedi is the third-most spoken language in South Africa and is mostly used in the province of Limpopo
Setswana	The primary language of the Northwest Province and Botswana (its border) is Setswana. It belongs to the same subfamily as Sesotho and Sepedi, which is the Sotho-Setswana group
Ndebele	Ndebele, like Zulu, Xhosa, and Seswati, is a Nguni language. Between all the eleven official languages of South Africa, it is the least spoken and is mostly restricted to the provinces of Mpumalanga and Gauteng
Xhosa	Like Ndebele, Zulu, and Swati, Xhosa is a Nguni language, albeit it also reflects some Khoekhoe language influence. The Khoisan people of South Africa used a language called Khoekhoe, which uses a lot of click consonants. In addition, Xhosa is the primary language of the Eastern Cape and the second most common language in South Africa, behind Zulu
Zulu	Along with Ndebele, Xhosa, and Seswati, Zulu is a Nguni language and the most frequently spoken language in South Africa and KwaZulu-Natal
Seswati	Seswati is a Nguni language, like Ndebele, Xhosa, and Zulu. It is mostly spoken in Mpumalanga
Tshivenda	Most people who speak Tshivenda are in the remote northeast of Limpopo. Among the main indigenous languages of South Africa, it can be considered a separate dialect. Although it is not a member of the Sotho group, it is a member of the larger Sotho-Makua-Venda subfamily
Xitsonga	In South Africa, Xitsonga is a minority language. It belongs to the larger subfamily of Nguni-Tsonga languages, which also includes Ndebele, Xhosa, Zulu, and Seswati

2.5. The history of South Africa and its relation to language

Apartheid translates to "apartness" in Afrikaans and was introduced in 1948 by the governing National Party. Apartheid was a system of institutionalised racism based on the ideation that. the White Afrikaner nation was inherently superior to Black Africans (SAHO, 2023). Black Africans were regarded as natives in South Africa and therefore forfeited rights, privileges, and equality within the country (1970 RSA State President et al., 1970).

The Apartheid government consolidated their beliefs through the implementation of laws and policies which subjected non-White and specifically Black African citizens to discrimination (SAHO, 2023). Racial segregation was made law. Numerous laws were implemented under the Apartheid government, which had a significant impact on the development and current state of indigenous African languages (Kamwangamalu, 2004; SAHO, 2023).

Under the Bantu Homelands Citizen Act of 1970, each state (homeland) was supposed to develop into a separate nation-state (homeland) for a different ethnic group (1970 RSA State President et al., 1970; Kamwangamalu, 2004). The homelands were pieces of land designed by the apartheid government, and Black people were taken there unwillingly to live without any political rights. Moreover, these homelands were in rural or undeveloped areas to prevent Black people from living in the urban areas (SAHO, 2014). Black African people were divided into several ethnic groupings under the Promotion of Bantu Self-Government Act No. 46 of 1959, for which so-called homelands were to be constructed. This meant that Black African people had to reside in their assigned homeland, dependent on their culture (SAHO, 2014). The North-Sotho group, South-Sotho group, Tswana group, Tsonga group, Swazi group, Xhosa group, Zulu group, and Venda group were the divisions made of these homelands (Governor General et al., 1959).

In total, ten homelands were created in South Africa. These were the Transkei, Bophuthatswana, Ciskei, Venda, Gazankulu, KaNgwane, Kwa Ndebele, KwaZulu, Lebowa, and QwaQwa (SAHO, 2014; 1970 RSA State President et al., 1970). Ciskei and Transkei were established exclusively for the Xhosa community. Only the Tswana people intended to use Bophuthatswana. KwaZulu was reserved for Zulu speakers. Lebowa for the Northern Ndebele and Pedi people. Venda was reserved for the Vendas. Qwa-Qwa was for the Basotho people,

and Gazankulu was for the Shangaan and Tsonga people. The South African government proclaimed four of the homelands " independent " in the 1970s. These included the Venda, Ciskei, Bophuthatswana, and Transkei. The other six homelands maintained their independence but lacked sovereign rights. On April 27, 1994, the South African Homelands Act ended and was reorganised into the nine provinces that comprise a democratic South Africa (SAHO, 2014).

The purpose of the Bantu Homelands Citizen Act was to separate Black Africans and to prevent them from constituting a homogenous group. Subsequently, Black Africans formed separate national units based on culture and language (Governor General et al., 1959). Black Africans were strictly limited to practising their indigenous home language in their specified homeland. As a result, the development of indigenous languages was deemed irrelevant (Governor General et al., 1959; Kamwangamalu, 2004).

2.5.1. The language policy during Apartheid

The Bantu Education Act of 1953 prohibited Black Africans from establishing, conducting, or maintaining any African school on their own accord. All schools servicing Black Africans had to be regulated under the Apartheid government, which held no consideration for indigenous African languages (1953 RSA Governor-General et al., 1953). Afrikaans and English were recognised as the only official language of instruction at all levels of governance, including educational and institutional levels (Kamwangamalu, 2004; Kaplan, 2008).

Apartheid was abolished in 1994, and since then, South Africa has continued to "gravitate towards English monolingualism" (Desai, 2016). Post 1996, SA's new constitution committed to prioritizing indigenous South African languages (Alexander, 2018; Moodley & Dlamini, 2021). South Africa now has a multilingual population fluent in at least two South African languages with Zulu and Xhosa accounting for the most spoken languages in the country (Stats SA, 2022). The country is predominantly inhabited by Black Africans, followed by Coloured, Indian/Asian and White people as shown in Table 2.2. adapted from the Statistics of South Africa (Stats SA).

Table 2-2 Statistics of the South African population grouping *(Stats SA, 2019).*

Population according to racial grouping	**Number**	**Percentage (%) of the total population**
Black Africans	49 070 809	81.0
Coloured	5 339 919	8.8
Indian/Asian	1 554 996	2.6
White	4 639 268	7.7
Total Population	60 604 992	100

Table 2-3 South African Home Language Statistics *(Stats SA, 2019)*

Home Languages according to racial grouping	**Percentage (%) of home language spoken per racial grouping**
Black Africans	100%
IsiZulu	31.1
IsiXhosa	18.2
Sepedi	12.4
Setswana	11.1
Sesotho	9.7
Coloured	100%
Afrikaans	77.4
English	20.1
Indian/Asian	100%
English	92.1
Other home languages	7.9
White	100%
Afrikaans	61.2
English	36.3
Other home languages	2.5

The South African Minister of Bantu Education and Development issued an order in 1974. The use of Afrikaans as a teaching language in Black African schools was made legal by this law. The medium of instruction was made compulsory from Standard five (now Grade seven) and onwards. It was determined that general science and practical disciplines, including needlework, agricultural science, home crafts, and metal and woodworking, would be taught in English. On the other hand, Afrikaans would be used as the medium of instruction for social studies, mathematics, and arithmetic. It was ordered that indigenous South African languages be reserved for religious, musical, and physical culture (Mbiza, 2018).

According to a 1974 address from the deputy minister of Bantu Education and Development: *"A Black man may be trained to work on a farm or in a factory. He may work for an employer who is either English speaking or Afrikaans speaking and the man who has to give him instructions may be either English speaking or Afrikaans speaking. Why should we now start quarrelling about the medium of instruction among the Black people as well? … No, I have not consulted them, and I am not going to consult them. I have consulted the Constitution of the Republic of South Africa …"*

The 1976 Soweto youth uprisings resulted from deep-seated discontent among Black African communities due to the Afrikaans-English language policy (Mbiza, 2018; Ngcobo, 2007). Desmond Tutu, the former Archbishop of the Anglican Church in South Africa, described Afrikaans as "the language of the oppressor" due to this animosity (Mbiza, 2018). After Apartheid ended, Afrikaans had become less common as the language of teaching (Kamwangamalu, 2004).

2.5.2. The Language Policy of South Africa post-Apartheid

Following the abolishment of Apartheid legislation in 1991, a democratic state was elected in 1994, and a new South African Constitution was adopted (SAHO, 2023). The Constitution of South Africa is often considered to be among one of the world's most progressive constitutions since it advocates for the advancement of equality and equal access to service regardless of race and class. Unfortunately, the implementation of the constitution has not reached its potential, especially at the rural or grassroots level (Kilian et al., 2021). Since 1994, many South Africans have been tasked with language disparities when seeking health care services (Kilian et al., 2021).

An unfavourable perception of indigenous South African languages as languages of instruction was largely shaped by Bantu education (Kamwangamalu, 2000). Due to its strong association with Apartheid, many people still have an unfavourable view of Afrikaans (GEM Report, 2016). According to Kamwangamalu (2000), the using Afrikaans as a language of instruction and learning has resulted in a rise in the popularity of English among Black Africans. English is often regarded as the language of intelligence (GEM Report, 2016). In some communities, English symbolises a high social status (GEM Report, 2016; Kusi-Appiah, 2022). English was associated with intelligence and freedom from the figurative chains of Apartheid (Ntombela, 2016).

South African indigenous languages were linked to subpar education, especially due to British missionary schools that were in operation during the Apartheid era. Ntombela (2020) argued that English was associated with freedom as portrayed in media where Black people could see themselves portrayed in African American films. Many Black Africans were also exiled to international countries, and this cemented the freedom that English symbolised at the time (Ntombela, 2016).

Since 1994, eleven languages in South Africa have been declared official and given the same status in the education policy (as discussed in section 2.4.). Despite this, indigenous South African languages, excluding English and Afrikaans, remain undeveloped in terms of language education (GEM Report, 2016; Ntombela, 2016). Many South Africans still choose English as their language of instruction in schools and universities due to its perception of holding a higher social status. According to experts, the South African government has not yet supplied the human resources and resources required to encourage multilingualism in educational institutions. It was reiterated that teachers must be empowered to teach indigenous South African languages and supported with the necessary tools and resources (GEM Report, 2016). The researcher elaborates on the language policies in schools and universities in section 2.6.

The South African government's current stance on the language issue is well-publicised in official state and legislative documents such as the Constitution of South Africa, the Public Service Regulations Act of 2016, and the Patients' Rights Charter (South African Parliament et al., 1996). The Patients' Rights Charter states that health information should be communicated in a language that the patient understands (HPCSA, 2008). Furthermore, the National Department of Health (NDOH) has also reiterated the advancement of indigenous South African languages in the NDOH Language Policy (National Department of Health, 2015).

The state is required to "take practical and positive measures" to improve the status and use of South African indigenous languages, as stated in Chapter One of the Constitution. The state has acknowledged and recognised that indigenous languages were "historically diminished" (South African Parliament et al., 1996). It is also stated that municipalities and national and provincial governments should consider the language usage and preferences of the residents in the concerned province. Furthermore, this stance is strengthened by a subsection stating that all official languages "must enjoy parity of esteem and must be treated equitably" (South African Parliament et al., 1996). The South African government has not fully implemented these measures despite its stated commitment to promoting the country's indigenous languages (Khumalo & Nkomo, 2022). English remains the language of choice in healthcare and other sectors, including mass media and government communication (Desai, 2016).

However, it is important to note that there has been an improvement in official government communication (Khumalo & Nkomo, 2022). Patients' knowledge of South Africa's language policies remains stunted despite the extensive documentation in the constitution and various national and provincial policies (Benjamin et al., 2016). As per the documents, healthcare users and patients possess the right to know about interpretation or translation services, even if they can communicate in English well (Benjamin et al., 2016; National Department of Health, 2015). According to Rudwick et al. (2021), many South Africans appreciate it when indigenous South African languages are used at higher levels of communication. Furthermore, it was suggested that HCPs may create a barrier between themselves and the community on the condition that it is perceived as being disrespectful to speak English or Afrikaans when addressing communities of Black Africans (INTRAC, 2022).

Chapter four of the Public Service Regulations Act of 2016 concerns employment matters. It states that an employer shall stipulate the job title and description for each post, with an appropriate emphasis on service delivery. It also states that an employer should ensure that the job requirements do not unfairly discriminate against any person (The Minister for the Public Service and Administration, 2016). There is no requirement for HCPs to be proficient in another language before being hired. It has been recommended that the DOH implement a language requirement of an African language at the conversational level during the advertisement of posts. This would also encourage more universities to include indigenous African languages in their curriculum (Steyn, 2012).

2.6. The language policies in South African schools and universities

The section explores the language policies in schools and universities.

2.6.1. Language policies in schools

The language policy of the National Department of Basic Education has also documented the need to intellectualise indigenous South African languages at the school level (Department of Basic Education, 2015). The main objective of this policy is to promote multilingualism while demonstrating respect for all official languages, including sign language. The policy seeks to promote and develop previously marginalised indigenous South African languages. Furthermore, the policy advocates for the learning and teaching of all official levels at all levels of schooling (Department of Basic Education, 2015).

According to the current language policy, pupils in grades one through three should be educated in their home language. After that, from Grades four through twelve, English must be used as the main medium of instruction (Department of Basic Education, 2015; Trudell, 2016). While the language policy allows the use of the student's home language, it also allows parents and teachers to opt for English as the first language. This occurs despite most students not speaking English as their first language (Trudell, 2016; USAID, 2020). In 2015, the South African government took measures to counter the choice of English as the language of instruction through a policy amendment. This amendment requires the learning and use of an African language in the classroom, which is to be informed by the local languages in the area (Department of Basic Education, 2015; Trudell, 2016).

A three-year South African study conducted by Desai (2016), at two primary schools in Western Cape urban townships examined the country's existing language policy in the classroom. The study explored students taught in their home language, i.e., Xhosa and English. The study showed that students require a relatively good grasp of English to comprehend communication in English. If students have a limited comprehension of English, then it is the institution's responsibility to provide education in this respect. Developing multilingual writing frameworks, translating important English literature into African languages, and creating African terminology were all seen as advantageous ways to capitalise on the students' pre-existing linguistic abilities (Desai, 2016).

2.6.2. The language policies in universities

Concerted efforts need to be directed toward language planning by institutions concerned with developing measures to change language use (Kaplan, 2008; Ngcobo, 2007). Fortunately, many South African universities have incorporated South African indigenous languages into their curriculum (Jeewa & Rudwick, 2020). Consequently, the decolonisation of curricula at South African institutions will be initiated in tandem with fulfilling the demands of society and students (Jeewa & Rudwick, 2020; Madadzhe, 2019). Terminological issues, however, continue to hinder the use of indigenous South African languages as academic languages in the nation's universities (Khumalo et al., 2022).

The Department of Higher Education has recognised universities' need to advance and adopt language policies to develop marginalised indigenous South African languages (Cele, 2021). The Higher Education Act made efforts to change the language policy in higher education to promote indigenous South African languages. Three primary documents were published in this regard, namely "Language in Education Policy" (1997) and "Language Policy for Higher Education" 2002 and a revised version in 2020. These publications (DOE, 1997; Ministry of Education, 2002; Department of Higher Education and Training, 2020) set out a framework and described the procedures required for the creation of a language policy that acknowledges and advances the indigenous languages of South Africa that were previously marginalised.

Many universities have adopted these policies and are making strides towards advancing indigenous South African languages. Universities that historically used Afrikaans as a teaching medium like the University of Pretoria and Stellenbosch University, have amended their language policy. These changes involved removing Afrikaans as an official teaching medium and replaced it with English (Cele, 2021). The University of Western Cape (UWC), University of Cape Town (UCT), and Stellenbosch have all incorporated Xhosa into their learning functions and have displayed Xhosa on signage throughout campus (Neethling, 2010; Cele, 2021).

In a study conducted by Neethling (2010), it was suggested that teaching indigenous languages "to perform higher functions such as serving as a medium of instruction is possible". The UCT has also incorporated language courses in Xhosa to support medical students (Mohamed et al., 2019). Neethling (2010) reported that UCT medical could not graduate unless they proved their abilities to speak and examine their patients in Xhosa (Neethling, 2010). The University of KwaZulu Natal has also implemented Zulu into their Nursing and Psychology modules. The University of Venda has also introduced minority languages such as Ndebele into their learning systems. At the same time, Nelson Mandela Metropolitan University in Qqberha is offering short courses in translation studies (Neethling, 2010; Cele, 2021). The University of the Free State (UFS) also included short learning language courses at first- and second-year levels in Sesotho, Zulu, and Afrikaans, depending on the campus' needs (UFS, 2016).

The Language Policy Framework for Public Higher Education Institutions regulations took effect in 2022, and several additional universities are scaling up their attempts to implement them as soon as possible. The goal of the 2022 meeting was to monitor the evolution of language policies at fifteen institutions by holding a meeting with representatives of the Community of Practice for the Teaching and Learning of African Languages (CoPAL). All these fifteen universities were making progress, and CoPAL reported that they aimed to finalise all the universities' language policies in the next year (Department of Higher Education and Training, 2020; USAF, 2022).

Mohamed et al. (2019) researched 262 medical students at the faculty of health at UCT. The research was concerned with the evaluation of a language course in Xhosa and Afrikaans. This study confirmed that indigenous languages do not receive equal exposure to Afrikaans. This was because 99% of the students reported having had exposure to Afrikaans in school, while only 42.7% reported exposure to Xhosa. This also focused on the historical linguistic imbalances in primary and high schools in the Western Cape. (Mohamed et al., 2019). The study also highlighted the need to improve the students' confidence and ability to converse.

in Xhosa and/or Afrikaans. Most of the students were able to greet patients comfortably in their respective languages and take a medical history. However, they experienced difficulties conducting medical investigations, discussing treatment, and understanding the patients' responses in either Xhosa or Afrikaans. The students reported that the language course could improve on enhancing cultural competency and understanding of cultural nuances from patients. Similarly, most students expressed difficulty understanding non-standard varieties of Xhosa and Afrikaans, which refer to the jargon or vernacular version. Therefore, it was deemed important for HCPs to be cognisant of the different dialects and jargon in indigenous languages (Mohamed et al., 2019).

2.7. The intellectualization of indigenous African languages

Since 1995, the South African government have expressed commitment to multilingualism by adopting language policies (Khumalo et al., 2022; Moodley & Dlamini, 2021). Despite the commitment to multi-lingualism as per the RSA constitution, African languages not developed to a point where they can be used to communicate science(Van den Berg, 2016; Wildsmith-Cromarty, 2019).

Madadzhe (2019) suggest that the solution is to create higher education programs that use African languages for instruction and study. In addition, researchers have recommended that it is essential for universities to include an African language course in HCP curriculums (Blackwell et al., 2021; INTRAC, 2022; Parker et al., 2013). There is a need for terminology development and practical lexicography which refers to the development of new words and terms (Bergenholtz & Gouws, 2012), to intellectualise indigenous languages (Khumalo et al., 2022). The repositioning of indigenous languages in knowledge organisation, knowledge generation, information access, and knowledge transmission in education are among the essential aspects driving the development of terminology for African languages (Khumalo et al., 2022).

2.8. Language learning

In the event of language barriers and the absence of interpreters, it is advised that HCPs learn to speak the dominant language of their patients' (Hussey, 2012). This next section examines the guidelines for successful language learning as well as the barriers to it.

2.8.1. Guidelines for effective language learning

Learning patients' home language helps HCPs build trust and respect while enhancing cross-cultural understanding (Pfaff & Couper, 2009; van den Berg, 2016). Although learning an indigenous language would greatly alleviate language barriers, it is often difficult to achieve, considering that HCPs are often overwhelmed with a heavy workload and are inundated with time constraints (Pfaff & Couper, 2009). Pfaff and Couper (2009) proposed guidelines to facilitate language learning in HCPs as outlined in Table 2.4.

Table 2-4 Recommendations for HCPs in effective language learning (Pfaff & Couper, 2009)

HCPs should use several strategies within the consultation to learn the language. Focus on communicative methods and allow the interpreter and patients to serve as teaching agents.
HCPs should focus more on listening than speaking
Be willing to practice the language as any given opportunity
Be willing to take risks and be humbled in attempt to learn the language
Take cognisance that language and cultural learning is equally important
Aim to partake in language learning techniques that maintain motivation to language learning
HCPs should immerse themselves in the environment of the patients who speak African languages
HCPs are encouraged to choose an individualised learning strategy

2.8.2. Barriers to language learning

Mohamed et al. (2019) evaluated the barriers to language learning. This study was conducted on 262 medical students at UCT who took a language course in Xhosa and Afrikaans. The study concluded that students believed that the language course was ineffective in equipping them with the confidence and proficiency to adequately communicate in Xhosa and Afrikaans (Mohamed et al., 2019). The majority of the study participants' reported that the language courses did not allow them enough time to learn a new language and understand the cultural nuances accompanied with language learning (Mohamed et al., 2019).

As it stands, HCPs already lack formal language learning and have poor confidence in learning a new language (van den Berg, 2016). Therefore, the parties involved in developing language courses should carefully consider the curriculum design and language tutorials (Mohamed et al., 2019). Van den Berg (2016) expressed that there is a need for formally trained linguists to assist and guide the language learning process (van den Berg, 2016).

2.9. The impact of language barriers on healthcare delivery

Globally, the impact of language barriers is well recognised across the board (Squires, 2018). Language barriers often cause miscommunication and frustration and hinder the shared decision-making process (Jager et al., 2020). Miscommunication between HCPs and patients can be life-threatening if HCPs fail to extensively communicate the details of a diagnosis or treatment to patients. Consequently, miscommunication risks yielding adverse health outcomes if the patients fail to understand the instructions or treatment (Meuter et al., 2015). Table 2.5. summarises the impact of language barriers on healthcare and patient outcomes.

Table 2-5 Evidence-based impact of language barriers on patient outcomes *(Betancourt et al., 2012; Squires, 2018)*

Length of stay if interpreter is not used at admission or discharge
30-day readmissions (among certain chronic diseases)
Central-line associated bloodstream infections
Falls
Surgical site infections
Pressure injuries
Surgery delays
Medication management (for example, adherence, understanding discharge instructions)
Preventive screening
Access to the healthcare system

Hussey (2012) identified a stark difference when comparing consultations HCPs held with English and Xhosa-speaking patients at a hospital in the Eastern Cape (one of the provinces in South Africa). This hospital serviced 262,000 people, of whom the majority spoke Xhosa as their home language, while almost all the resident doctors and health professionals spoke English and were not proficient in Xhosa. The researcher found that the English-speaking patients experienced a more positive and comprehensive clinical consultation. This was evidenced by increased bonding between the patients and HCPs and HCP taking more time to explain the disease prognosis and subsequent intervention. Conversely, consultations with Xhosa-speaking patients were perceived to be more time-consuming, frustrating for both parties and less effective. The HCPs were also unable to match the comprehensive consultation in Xhosa that they conducted with the English-speaking patients (Hussey, 2012).

2.9.1. The impact of language barriers on health disparities and patients

Effective health communication significantly impacts the prevalence of health disparities (Pérez-Stable & El-Toukhy, 2018). Health disparities are inequalities in healthcare quality between socioeconomic, racial, and ethnic groups. Differences in healthcare quality are directly linked to race, ethnic, and cultural differences within the population as opposed to clinical factors and variables like access to care (Riley & Nashville, 2012). Health disparities between HCPs and patients can be attributed to numerous factors such as language barriers and a lack of cultural competence (de Jager et al., 2020; Pérez-Stable & El-Toukhy, 2018). Thus, it will be necessary to highlight the potentially dangerous consequences that may result from language barriers by comprehending the language and cultural aspects of healthcare interactions (de Jager et al, 2020; Meuter et al., 2015).

Linguistic barriers between patients and HCPs may stand in the way of providing effective and equitable healthcare (Meuter et al., 2015; Pérez-Stable & El-Toukhy, 2018). They can negatively impact health communication between HCPs and patients during consultations and influence health outcomes negatively (Pérez-Stable & El-Toukhy, 2018). An extensive body of evidence reiterates that language barriers decrease the quality of patient care whilst simultaneously undermining basic patients' rights (Meuter et al., 2015; Mohamed et al., 2019).

There has been a renewed call for the global healthcare system to strengthen cultural diversity and language access in healthcare institutions (Flood & Rohloff, 2018). However, language barriers between patients and HCPs continue to compromise the healthcare system in South Africa. Research has demonstrated that patients or healthcare users have also expressed concerns regarding language barriers during consultations (de Moissac & Bowen, 2019; Flood & Rohloff, 2018).

In a study conducted by de Moissac & Bowen (2019) among minority groups across four provinces in Canada , patients reported a decreased quality of healthcare, health inequity and poorer health outcomes. Patients from this study expressed difficulty in communicating their symptoms in English when HCPs could not speak their language and some felt that HCPs either misdiagnosed their conditions or delayed making a diagnosis, which led to delayed medical treatment (de Moissac & Bowen, 2019). Similarly, in a study by de Jager et al., (2020) conducted on dietitians, it was reported that migrant patients often misunderstood the proposed treatment and expressed poor confidence in the healthcare intervention (de Moissac & Bowen, 2019).

2.9.2. The emotional impact of language barriers on patients and HCPs

The emotional impact of language barriers was also recognised. Some patients expressed feelings of stress, anxiety, and frustration when communicating with HCPs who could not understand them (Jager et al., 2020; Paternotte, 2016). Similarly, some patients reported that they had a decreased proficiency in English when under the influence of medication or during times of stress and pain. Interestingly, these patients could communicate in English relatively well under normal conditions. At the same time, some patients expressed that they have refused to seek medical attention out of fear of not being understood. This was heightened when the HCPs exhibited frustration or impatience when interacting with the patients. Other patients reported that they often pretended to understand the health information and were reluctant to ask the HCP to repeat the information (de Moissac & Bowen, 2019).

Considering the history of Apartheid in South Africa, the interpreter-mediated interaction between the HCP and the patient may be accompanied by trauma. Communities who were victims of Apartheid are often on the receiving end of interpreting services, which may trigger trauma for those healthcare users. Moreover, untrained interpreters often relate to or share the healthcare users' cultural and socioeconomic backgrounds. This is acknowledged to cause unconscious or unspoken undercurrents affecting the interpreter-mediated interaction (Benjamin et al., 2016). These phenomena may also intensify the emotional effects on healthcare users and patients (Benjamin et al., 2016; de Moissac & Bowen, 2019). It cannot be underestimated that language still signifies political and societal dynamics in South Africa (Benjamin et al., 2016).

2.10. The use of interpreters

The appointment of trained and appropriate medical interpreters has been identified as crucial for achieving the best standard of practice in medical interpretation (de Moissac & Bowen, 2019). Interpreters are often used when there is a language barrier, and HCPs are unable to conduct consultations in the patient's language. It was demonstrated that interpretation also facilitated a relationship between the patient, the HCP, and the interpreter (Kilian et al., 2021). Section 2.10 examines the use of both trained and untrained interpreters, as well as the limitations and other factors to consider when using interpreters.

2.10.1. The use of trained interpreters

A trained medical interpreter assists in the clear exchange of information between HCPs and patients. Additionally, trained medical interpreters also serve as cultural liaisons, which is especially useful in the South African landscape (Habib et al., 2023). The use of trained interpreters' aids in reducing healthcare costs, improves treatment outcomes and increases medical safety events (Granhagen Jungner et al., 2019). Dedicated trained interpreters are often hired by the government for legislative purposes such as court proceedings. It is unfortunate that the appointment of dedicated medical interpreters is rare within the South African health system (Kilian et al., 2021).

Interpreters require various skills to effectively translate medical information between the patient and HCP. These skills require the interpreter to have a good grasp of both languages in question and be culturally sensitive (Benjamin et al., 2016; Habib et al., 2023). Literature

has suggested elements of good interpreter supervision. Table 2.7. demonstrates the elements of good interpreter supervision (Benjamin et al., 2016; Splevins et al., 2010).

Table 2-6 The elements of good interpreter supervision *(Benjamin et al., 2016; Splevins et al., 2010)*

Understanding of emotional, ethical, systems and workload issues.
Understanding of complex dynamics in teams in different institutions
Appreciation of the varying needs of patients in different wards
Focus on clarifying professional and personal boundaries
Focus on the emotional impact of the work, highlighting problematic reactions in this regard
Recognition of the potential growth inherent in interpreting and trauma
Recognition of the dangers of one-off sessions with healthcare users who have particularly traumatic histories and presentations
Recognising signs of burnout in the interpreter

There is a growing need for the appointment of trained medical interpreters, as interpreting in healthcare settings is a complex process(Kilian et al., 2021).

2.10.2. The use of untrained interpreters

When HCPs lack the linguistic and cultural skills needed to effectively engage with their patients, interpreters are recommended (Hussey, 2012; Kilian et al., 2021; Meuter et al., 2015).However, in the absence of interpreters, non-medical staff and other untrained interpreters are used which compromises healthcare interventions (Meuter et al., 2015). Healthcare providers often use non-medical and untrained interpreters, such as the housekeeping staff, which has been shown to be unethical as the patient shares confidential and sensitive information (Al Shamsi et al., 2020; Bauer & Liou, 2012). Chapter two of the Public Service Act states that officials should ensure confidentiality in all official matters and discussions (Government Gazette No. 40167, 2016). The Patients' Rights Charter endorses patient confidentiality and obtaining informed consent before disclosing health information to another individual (HPCSA, 2008).

Research demonstrates that some patients have reported instances of some patients not receiving healthcare at their initial consultation because the HCPs could not communicate with them. Subsequently, these patients were given an alternative appointment, where they

were requested by the HCP to bring a family member along to interpret in English. The practice of asking patients to bring their own interpreters also poses a concern (de Moissac & Bowen, 2019; Habib et al., 2023) because it shifts the responsibility and cost of safe and quality healthcare on the ill patient instead of the HCP and health system (de Moissac & Bowen, 2019). This has legal and ethical implications as recognised by the HPCSA and other national policies in South Africa (de Moissac & Bowen, 2019; HPCSA, 2008).

Although untrained interpreters are often used (de Moissac & Bowen, 2019; Kilian et al., 2021), this practice poses many risks, such as breaching patient confidentiality, miscommunication, and misunderstanding of the proposed health intervention (de Moissac & Bowen, 2019). Kasten et al. (2020) elaborated on the potential benefits and risks of using untrained family and/or friends for healthcare interpretation, as demonstrated in Table 2.7.

Table 2-7 The potential benefits and risks of using untrained individuals for healthcare interpretation (Habib et al., 2023; Kasten et al., 2020)

Benefits	Risks
Easy access, especially in poorly resourced institutions	Family members may have their own agendas
Improved comfort and trust for patients	Family members may omit, substitute, and make mistakes with the transfer medical information
Beneficial in situations where the patients require encouragement and ongoing support beyond the consultation	High risk of breaching privacy and confidentiality is high. The discussions of sensitive topics can be challenging
No or minimal financial costs	Conflict in normal family dynamics may arise
Appropriate for relatively simple or less complex clinical situations	The flow and control of the consultation may be derailed by more complex conversations
Ensures continuity during future consultations	Family members may have their own agendas

2.10.3. Cultural aspects of interpretation

There are key cultural aspects to take into consideration when collaborating with interpreters. In a culturally diverse healthcare environment, HCPS need to acknowledge and manage cultural differences accordingly. This includes, but is not limited to professional medical jargon, emotional vocabularies, cultural practices, and other socioeconomic differences such as finances, educational levels (Benjamin et al., 2016; Habib et al., 2023; Kasten et al., 2020).

HCPs' level of self-awareness and reflection depends on their ability to be sensitive and

adaptive to cultural differences in the healthcare setting. It is, therefore, important for HCPs to understand their own cultural beliefs, values, and practices before they navigate into learning their patients' cultures. The development of a trusting therapeutic relationship between the patient and the HCP is dependent on the HCP's knowledge of the patient's culture (Kasten et al., 2020). Interpreters help to bridge the cultural diversity gap during medical consultations (Habib et al., 2023; Kilian et al., 2021). Hence, it is beneficial to allow the interpreter to offer cultural information and clarification in the event of cultural misunderstandings. Moreover, trained interpreters can also offer invaluable insights into the patients' sociocultural background and expectations, leading to a more seamless and effective consultation (Kasten et al., 2020).

Interpreters often had to serve as cultural brokers. This meant that the interpreter functioned as an intermediary between the patient and the HCP since they did not share the same cultural group (Benjamin et al., 2016; Kilian et al., 2021). Cultural brokering was considered important because it helped the HCP to make sense of the patient's condition and helped guide the subsequent medical treatment (Kilian et al., 2021). Interestingly, interpreters who shared the same culture as their patients acknowledged that they needed training on culture to fulfil their role as cultural brokers. This highlighted the complexities within a single cultural group (Benjamin et al., 2016). Other researchers have also recognised that cultural factors affect how interpreters convey information. Interpreters may withhold information from the HCP due to their perceived notion that the information expressed by the patient is culturally sensitive or inappropriate (INTRAC, 2022; Williams et al., 2018).

2.10.4. Limitations of using interpreters

The use of interpreters presents many limitations accompanied by legal and ethical limitations (Al Shamsi et al., 2020; Bauer & Liou, 2012). Jager et al. (2020) reported that dietitians are often aware of the limitations when untrained interpreters are used. However, without trained interpreters, alternative options remain few (Jager et al., 2020). Furthermore, patients may not be comfortable discussing their health conditions in the presence of an interpreter (Habib et al., 2023; Kasten et al., 2020). In addition, non-medical and untrained interpreters may omit or alter information and unknowingly make mistakes with medical terms (Al Shamsi et al., 2020).

It was also found that HCPs may not know whether the information conveyed is correctly interpreted as they do not understand the language themselves (Coetzee et al., 2015; Jager et al., 2020). On the other hand, dietitians may also fail to clarify whether the patient understood the information being interpreted (Jager et al., 2020). HCPs also expressed instances where they felt excluded from the consultation and like a spectator between the interpreter and patient (Kilian et al., 2021).

2.10.5. Challenges and others factors to consider with the use of interpreters

A qualitative study conducted by Kilian et al. (2021) demonstrated that untrained interpreters expressed difficulties when tasked with serving as interpreters. Thirteen semi-structured interviews were conducted with healthcare staff, who consisted of cleaners, professional nurses, and social workers. Time constraints and high workloads emerged as barriers to interpretation among ad-hoc untrained interpreters. Staff members reported that they often felt reluctant to interpret due to their own work duties and responsibilities (Kilian et al., 2021). Interpreters also explained that interpreting was complex and did not simply involve translating words and phrases from one language to another (Kilian et al., 2021). Madadzhe (2019) reiterated that South African indigenous languages still leave much to be desired in terms of their scientific parity to English and Afrikaans. Indigenous languages are still handicapped by terminological problems, and there are not enough scientific terms available in Indigenous languages (Khumalo & Nkomo, 2022).

In addition, it was reported by Kilian et al., (2021) that clinical healthcare staff, such as nurses who served as interpreters, also played a role in the diagnostic process of patients. Since a diagnosis depends on the evaluation of medical and societal factors that are reported by a patient, an interpreter becomes a gatekeeper to this information. In turn, the information that the interpreter decided to translate, alter, or overlook influenced the final diagnosis made by the treating HCP, who could not speak the patient's language (INTRAC, 2022; Kilian et al., 2021; Williams et al., 2018). Clinical healthcare workers felt more empowered to assist in the diagnostic process because of their clinical knowledge, in comparison to other staff like cleaners. Furthermore, the clinical healthcare workers were very aware of the time constraints and, therefore, wanted to save time by fast-tracking the diagnostic process (Kilian et al., 2021).

Benjamin et al. (2016) reported the findings of a pilot study conducted in the Western Cape (one of the nine provinces in South Africa). The pilot study ran over three years and evaluated the working experiences of trained medical interpreters. Community members who were Xhosa-speaking were selected, and they were trained to become Xhosa interpreters in medical settings. The speakers self-identified as African, had a formal secondary schooling background and underwent an intensive three-day interpreting course prior to entering the working environment (Benjamin et al., 2016). The pilot study identified various themes highlighting the challenges associated with interpreting within a healthcare system. The interpreters communicated an overarching theme of a challenging work environment on both an emotional and practical level. It was made clear that the DOH was poorly prepared to meet the Human Resource (HR) needs of the interpreters. There were poor parameters in place with regard to work duties, administrative functions, and performance assessments. The interpreters all believed they did not know how they fit into the healthcare system (Benjamin et al., 2016).

On the other hand, the logistical aspect of their work was also handicapped by practical aspects. The trained interpreters were tasked to work in clinical settings, such as the medical environment and general settings, such as administrative environments, e.g., working at a helpdesk. The interpreters described the clinical settings as exhaustive and frustrating. They were often overwhelmed when working with patients with traumatic medical conditions and having to process difficult emotions after that. It was reported that the interpreters often felt underappreciated by the HCPs. Additionally, interpreters expressed discomfort with being placed in compromising situations where either the HCP or patient requested that they omit or alter the communication in question. In summary, the pilot study highlighted many challenges and areas of improvement that would enhance interpreter-mediated interaction in the healthcare system (Benjamin et al., 2016).

The appointment and provision of professionally trained medical interpreters are not prioritised in an already financially burdened healthcare system (Benjamin et al., 2016; Kilian et al., 2021). Another argument is that the healthcare system continues to function despite the language inequalities. Perhaps the longstanding problem of language barriers is not treated with the urgency it deserves because HCPs' have developed strategies to work around them (Kilian et al., 2021). Healthcare institutions must therefore ensure that committed

interpreters have received the necessary training and certification to function as medical interpreters and also follow a code of ethics that mandates patient confidentiality (Deering, 2023).

2.11. Code-switching

Code-switching is a linguistic technique where speakers change or adjust their language, speech, accent, or behaviour to adapt to the target population (Kusi-Appiah, 2022b). It is a common alternative to overcoming the language barrier (Wood, 2019). Using basic language skills is the second most reported technique used to overcome language barriers (Betancourt et al., 2012). This allows HCPs to practice independence during consultations without interpreters (Blackwell et al., 2021; Hussey, 2012). It was found that codeswitching also helps to increase rapport and bonding between the patient and HCP (Blackwell et al., 2021). Alqurashi (2022) reported on the core functions of code-switching, which included the facilitation of communication, placing emphasis on information, clarifying information, delivering the health message fast, and filling lexical gaps (Alqurashi, 2022).

De Klerk (2006) demonstrated numerous ways in which codeswitching can be utilised to help alleviate language gaps. Codeswitching uses nouns and verbs to explain cultural practices and concepts. These nouns and verbs may also be used as a direct translation following or before the equivalent English word. The research referenced a Xhosa example, namely:

. *"… is just like uGqira, the doctor."*

The Xhosa word for doctor is Gqira, and it was said in that manner to clarify what the speaker was saying. It was also to remind the listener of the common or shared understanding, which is this case was the word, doctor. Indigenous languages, such as Xhosa, use prefixes on English nouns. In the case of Xhosa, the i-prefix was used with non-human entities. Meanwhile, the u – and ama- prefixes were normally used for humans. For example, the u- prefix was used to describe names and references to people, such as u-government and i-poverty. On the other hand, the i-prefix was used to verbalise, among others, i-sex education and i-education (De Klerk, 2006).

Hussey (2012) reported similar uses of codeswitching following a study conducted on Xhosa patients and English-speaking HCPs. The HCPs often used common Xhosa phrases such as "buya date", which meant date of return, "you must go there ngomso meaning tomorrow",

and "kubuhlungu?" translating to: "is there pain?". Most of the English-speaking HCPS also knew a relative number of anatomical words, for example: "indlebe" (ears), "intloko" (head) and "amadolo" (knees). Whereas some HCPs mastered some action command verbs: "goba", "lula", "vala", "vula", "phefumla". The researcher also observed that doctors would call out into the waiting room of the outpatient department "olungileyo" (next) or "omnye" (one) to signal that the next patient must enter. Doctors also altered their accents and communicated in basic English to improve communication (Hussey, 2012).

Another codeswitching technique involved switching to the opposite language if the speaker was unsure of a word or phrase. The researcher identified this technique when pauses were heard in the speakers' voices during speech. Lastly, Xhosa words were also used to communicate an emotive function. The first word used often demonstrated signs of emotion for example: "hayi" which means "no" used or "joh" was used to communicate astonishment. Lexical borrowing was identified as the most common technique of codeswitching, with the speaker alternating from the dominant to the less dominant language (De Klerk, 2006).

Although codeswitching can be used to overcome language barriers, Wood (2019) recommends that HCPs carefully consider their use of codeswitching. Special attention and consideration should be placed on the choice of tone, words, and body language, as professionalism should be maintained to avoid offending or patronising patients. Healthcare workers may fall privy to undermining a patient's intellectual capacity by speaking too loudly and/or speaking down to them (Wood, 2019).

Healthcare workers might mistakenly use similar languages to the patients' indigenous language and unknowingly cause misunderstanding and confusion. Patients may also express nonverbal cues, such as nodding, during the consultation, indicating a level of understanding to the HCP when there really is not any understanding. In turn, this can lead to poorer health outcomes, such as adverse health events and poor understanding of the proposed treatment (Betancourt et al., 2012).

2.12. Other strategies to overcome language barriers

Dietitians have reported that they must often resort to alternative strategies to overcome language barriers. In the absence of interpreters and codeswitching, dietitians have been known to use visual materials to explain disease pathophysiology and subsequent medical

nutrition therapy. Other strategies included using photo books or pictures and household measures such as spoons to demonstrate portion sizes. Furthermore, some dietitians have also used their hands to illustrate medical and nutrition concepts (Jager et al., 2020). There were also several dietitians who were reported to use information brochures (Jager et al., 2020). Researchers have also reported on the emergence of healthcare users and HCPs using Google Translate to overcome language barriers (de Moissac & Bowen, 2019; Jager et al., 2020).

Many patients reported undertaking measures prior to consultations to gain knowledge about their medical condition, associated medical terminology and possible treatment options. These measures included the use of an English dictionary, internet sites, or Google Translate. Despite these helpful measures, patients acknowledged that these were not always feasible during emergencies or hospitalisation situations. Recent research has determined that Google Translate is not an effective substitute for interpreter-mediated interactions despite it being readily available and easily accessible (de Moissac & Bowen, 2019). This could be because Google Translate generates direct translations, which are not always accurate when communicating in spoken language.

2.13. Summary

The double burden of malnutrition is a serious public health concern, with maternal and child malnutrition being a major contributor (WHO, 2016). The first 1000 days of life refers to the critical period of development between conception and two years of age (Victora et al., 2021b). Adequate nutritional care is invaluable during this period, and without it, the tone is set for poor health outcomes into adulthood (Victora et al., 2021b; Adebiyi et al., 2021). Nutrition education is essential in addressing the double burden of disease during the first 1000 days of life. The role of language is crucial in health communication, such as nutrition education (Jackson, 2019; Ramesh et al., 2019). HCPs often do not share the same language as their patients, resulting in language barriers (Parker et al., 2013). Language barriers compromise the quality of healthcare interventions and have a negative impact on patient health outcomes (Al Shamsi et al., 2020; Hussey, 2012).

Language remains a complex phenomenon in South Africa, as the country has eleven official languages (Stats SA, 2022a). The political history and climate of South Africa has also stunted the development of indigenous South African languages, while English and Afrikaans have

been privileged in terms of development and exposure (Khumalo & Nkomo, 2022; Moodley & Dlamini, 2021; Madadzhe, 2019). The country's government has made strides towards advancing indigenous languages through the constitution and the drafting of various policies. However, these efforts have also become accompanied by their own challenges in terms of policy implementation (Khumalo & Nkomo, 2022).

HCPs have made efforts to address language barriers, and these efforts include the use of interpreters, language learning, and codeswitching, among other strategies. However, these strategies are often accompanied by disadvantages and limitations that may further compromise healthcare quality. The researcher determined key objectives in this study to determine the complexities of the language barriers experienced between mothers and Sesotho-speaking patients. The objectives also included identifying solutions to overcome the language barriers. In the next chapter, the researcher discusses the research methodology used to achieve these objectives.

CHAPTER 3 RESEARCH METHODOLOGY

In this chapter, the researcher extensively explains the research methodology used to determine language barriers between dietitians and Sesotho speaking mothers.

3.1. Introduction

Good communication is acknowledged as the foundation of successful medical interventions and greatly determines health and clinical outcomes (Granhagen Jungner et al., 2019). Information is communicated through language therefore addressing the linguistic component of healthcare is crucial for the success of health interventions (Flood & Rohloff, 2018; Sagi et al., 2021). Thus, the researcher identified an aim of identifying language barriers during nutrition consultations and exploring solutions to overcome them.

With this goal in mind, a qualitative research approach could serve as equally important as quantitative approaches in medical education (Ataro, 2020). The end goal in medical education? is to improve the quality of education and subsequently healthcare interventions. Qualitative and quantitative research approaches do not only differ in methodology and data collection techniques, but they also differ in terms of assumptions about realities of the world (Ataro, 2020; Creswell & Creswell, 2018). Similarly, research is concerned with formulating and answering questions. The research approach is based on paradigms, philosophical assumptions, and specific research methodologies (Alele & Malau-Aduli, 2023). Therefore, the researcher explored the intricacies and specific research methodology approach in this chapter.

3.2. Research Paradigm

Ontology is concerned with the research framework whilst epistemology is with involved the research questions that need to be determined (Ataro, 2020; Crotty, 2003). Ontology is a method that seeks to understand the nature of the research (Nieuwenhuis 2016). Specifically, in this research study, ontology is concerned with identified language barriers in healthcare, whilst epistemology was concerned with determining why language barriers occurred.

The research methodology was concerned with the method used to determine the nature and complexity of language barriers that dietitians experienced. Collectively, ontology, epistemology, and methodology form a comprehensive practice which explores the entirety

of the research in question. This comprehensive practice is the research paradigm. A research paradigm is a model or approach to research that is considered a fundamental frame of reference for collecting and interpreting data by researchers (Babbie, 2016: 32, Delport et al., 2011:513). The nature of knowledge is explored within a research paradigm and involves research principles, which assist others in understanding the research in question (Brown & Dueñas, 2020).

3.2.1. Ontology

Ontology is defined as how reality is viewed within the world itself. It is simply concerned with the nature of reality and studies how the researcher perceives this reality. Ontology is focused on assumptions by researchers based on the nature of research (Alele & Malau-Aduli, 2023). These assumptions lead the researcher's thought processes and aid in determining the researcher's approach to answering the following questions: 'what is real in the social world?' and 'what is there to be known?' (Ataro, 2020; Crotty, 2003; Alele & Malau-Aduli, 2023; Brown & Dueñas, 2020). Realities are either objective or subjective based on the perceptions, actions, and interpretations of the individuals experiencing the phenomenon that is being studied (Ataro, 2020).

In this study, the researcher adopted the interpretivist paradigm and adopted a subjective approach. Interpretivists view the world as complex and concede that reality is grasped through social constructs such as language, consciousness, and relatability (Denzin & Lincoln, 2018). The researcher viewed language barriers as a complex phenomenon which was varied and shaped according to participants own unique experiences within their daily working life.

3.2.2. Epistemology

Once a firm understanding of the realities of the research topic is determined, epistemology comes into play. Epistemology is concerned with the nature of the knowledge and beliefs. It describes how the knowledge was obtained, used, and understood (Alele & Malau-Aduli, 2023; Brown & Dueñas, 2020). As an interpretivist, the researcher aimed to gain understanding (Creswell & Poth, 2018) of language barriers that dietitians experience when consulting with Sesotho-speaking mothers of IYC. Furthermore, the impact of language barriers was explored with subsequent solutions to overcome them. The researcher therefore

sought to understand participants' lived experiences within their environment using an interactive approach (Fouche & Schurink, 2012: 308-311). This related to the researcher gaining transactional knowledge through face-to-face interviews with participants (Denzin & Lincoln, 2018).

3.2.3. Methodology

Overall, ontological, and epistemological traditions explore reality and knowledge and can be viewed in two ways. It is either viewed as positivism/objectivism or interpretivism/constructivism. From a positivist/objectivist perspective, knowledge is viewed as tangible and static, where a researcher merely observes and measures without engagement in the subject matter (Ataro, 2020; Brown & Dueñas, 2020). This perspective is commonly used with quantitative research (Ataro, 2020). In contrast, from an interpretivist/ constructivist perspective, knowledge is viewed as subjective, personal, and flexible where researcher is engaged with the subject matter (Ataro, 2020; Brown & Dueñas, 2020). The interpretivism perspective is often associated with qualitative research (Ataro, 2020; Denzin & Lincoln, 2018). Based on this worldview, the qualitative interpretivist approach was used for the research study which is a phenomenological qualitative design. An explorative study was included in the research process.

The researcher therefore conducted face to face interviews where participants described their lived-in experiences with Sesotho-speaking mothers of IYC during consultations related to the first 1000 days of life. Data gathered from participants were based on their personal experiences and understanding of language barriers. A more comprehensive discussion of the methodology follows in this chapter.

3.2.4. Axiology

A research paradigm which is a fundamental set of beliefs about research should be a key aspect of research studies. However, it is equally important to consider the values and ethics of the research study. Values and ethics define the first foundational aspect of a research paradigm which is axiology (Brown & Dueñas, 2020). Axiology refers to the researcher's understanding of their values, beliefs, and their ethical roles within the research (Biedenbach & Jacobsson, 2016). It guides their research practices and interpretation of the research

findings. There are multiple axiological stances that researchers may take in healthcare. The stances relevant to this research study are patient- centeredness, health equity and cultural humility (Alele & Malau-Aduli, 2023).

Patient-centeredness underscores the importance of integrating patients' perspective, values, and preferences in the healthcare decision-making process (Saha et al., 2008; Alele & Malau-Aduli, 2023). The researcher aimed to find solutions to identified language barriers by asking participants to express their recommendations. This practice of determining solutions and recommendations may help to promote patient-centeredness during nutrition consultations. Cultural competency underpins the importance of acknowledging and respecting cultural differences and avoiding stereotypes in healthcare interactions (Alele & Malau-Aduli, 2023; Flood & Rohloff, 2018; Squires, 2018). The researcher aimed to gain insight into the cultural nuances woven into language barriers. This was done through interviewing participants of different cultural backgrounds and interviewing participants who consulted with patients from diverse cultural backgrounds.

Health equity is a value which highlights the promotion of fairness and justice in healthcare. It also emphasizes the importance of addressing health disparities (Alele & Malau-Aduli, 2023; Braveman et al., 2018). It is well known that patients from indigenous backgrounds have often had poorer outcomes compared to non-indigenous populations. These disparities stem from cultural constructs of colonization, poverty, and marginalization (Anderson et al., 2016; Flood & Rohloff, 2018). In the case of South Africa, these disparities stem from the system of Apartheid, which had a detrimental impact on the development of indigenous African languages, largely contributing to language barriers. This system of discrimination also placed Black Africans at a high risk for health inequity, which was further exacerbated by existing language barriers.

Axiology also necessitates that the researcher to approach the research process with rigor to make provision for the subjective nature of the research topic (Brown & Dueñas, 2020). This is where insider research comes into play, i.e., a researcher who has a personal connection to the research. Insider research requires that the relationship between objectivity and subjectivity be examined to ensure that the researcher was indeed objective in their examination of the data (Greene, 2014). The researcher was aware of her own experiences, values, beliefs, and opinions in relation to the research topic. Therefore, the researcher

sought to practice critical self-awareness throughout the research process to avoid influencing the interpretation of data (Zuber-Skerritt, 2018). Moreover, the researcher explored her role in the study more extensively in section 3.7. Since the researcher does possess insider research and therefore a certain level of bias with relation to the dietetics profession, it was crucial to apply a set of values and ethics throughout the research process.

The researcher integrated both principle-based and virtue-based ethics, as discussed in section 3.8 (ethical considerations). Furthermore, the researcher reinforced the study's methodological rigor of the study through the application of trustworthiness as outlined in section 3.9. The researcher valued participants' input and thus maintained an approachable, respectful, and empathic demeanour throughout the research process (Greene, 2014). This was done to ensure that participants could express themselves freely and without judgement (Merriam & Tisdell, 2015).

3.3. Research Design and Method

Once the focus of the research study has been established, specific procedures must be followed to acquire knowledge on the focus of study (Brown & Dueñas, 2020). The focus of this study was language barriers between dietitians and Sesotho speaking mothers. The researcher identified a specific study design and methodology to explore these language barriers. Specifically, a qualitative study design that goes beyond statistics. Qualitative research relies on linguistic (words) rather than numerical data. Unlike quantitative research, which is focused on statistical data, qualitative research aims to promote unique methods such as dialogue and interviews. Qualitative research seeks to understand why certain trends and behaviours occur (Nieuwenhuis 2016).

3.3.1. Qualitative approach

An exploratory phenomenological qualitative study design was used to determine language barriers between dietitians and Sesotho speaking mothers of IYC during the first 1000 days of life. Exploratory qualitative studies do not always originate from an established or fixed theoretical framework. Instead, they focus on developing a theoretical framework and unearthing a new understanding (Botma et al., 2010). The objective was to identify key issues and variables contributing to understanding social phenomena and trends (Nieuwenhuis

2016). Thus, the researcher aimed to identify the key issues and variables contributing to the language disparities during nutritional consultations.

3.3.2. Phenomenology

Phenomenology is a descriptive and interpretive process in which the researcher interprets the meaning of participants' lived experiences (Creswell & Poth, 2018). While a qualitative narrative study is concerned with determining lived experiences of an individual, a phenomenological study seeks to understand lived experiences of multiple individuals (Creswell & Poth, 2018; Nieuwenhuis 2016). The phenomenological methodology approach involved identifying a phenomenon (Creswell & Poth, 2018) which related to language barriers between dietitians and mothers of IYC.

The phenomenon involved unpacking dietitians' lived experiences and collecting data through conversational interviewing techniques. Qualitative data was reported to the researcher in dietitians' own words to describe their experiences (Botma et al., 2010; Nieuwenhuis 2016). Qualitative research allowed the researcher to understand and comprehend dietitians' lived experiences and viewpoints within the context of their daily life (Nieuwenhuis 2016).

3.4. Population and Units of Analysis

The study used a non-probability sampling method, namely purposive sampling. Purposive sampling is a method where participants are selected because they represent specific characteristics relevant to the research topic (Maree & Pietersen 2016). Dietitians were the unit of analysis for this study (Babbie, 2016). Although only 9.7% of households in South Africa use Sesotho as their first language, the most spoken language in the Free State is an African language, namely Sesotho. Almost three-quarters (71.9%) of the households in the Free State speak Sesotho (Stats SA, 2019). Therefore, the researcher specifically involved dietitians who consulted with Sesotho speaking mothers.

3.4.1. Dietitians

In the Free State province, approximately 70 dietitians are employed in public health facilities, i.e., public health centres (PHCs), district and tertiary hospitals. In tertiary hospitals, different dietitians are assigned to specific treatment areas, such as maternal and child health, surgery unit or intensive care units. Whereas in district hospitals and PHCs, one or two dietitians are

responsible for all treatment areas. The phenomenology approach used data collection methods that allow for long interviews with 5-25 participants (Creswell & Poth, 2018). The research population included dietitians who worked with Sesotho-speaking mothers in maternal and child health departments Participants who worked specifically with IYC were selected from various tertiary and district health institutions across the Free State province. Personal expertise was used to select the research population because the researcher was acquainted with the specific institutions that focused on mother and child health. Following completion of the data collection process, a total of 22 participants an took part in the study. Table 3.1. explores the research population in this regard.

Table 3-1 Research Population of the participants

Institution Code	Location	Number of participants per institution
Institution 1	Ladybrand	1
Institution 2	Botshabelo	2
Institution 3	Welkom	3
Institution 4	Bethlehem	3
Institution 5	Trompsburg	2
Institution 6	Smithfield	1
Institution 7	Bloemfontein	4
Institution 8	Bloemfontein	3
Institution 9	Trompsburg	1
Institution 10	Welkom	2
Total participants:		22

3.4.2. Study setting

The Free State is a province in South Africa. The capital city of this province is Mangaung (also known as Bloemfontein), which is also South Africa's judicial capital. The Free State Province is divided into four districts and one main metropolitan municipality, namely the Mangaung Metropolitan Municipality. It has four municipalities. These four district municipalities include Fezile Dabi District, Lejweleputswa District, Thabo Mofutsanyana District, and the Xhariep District

(Figure 5.1.). The four district municipalities are, in turn, divided into 19 local municipalities (Stats SA, 2022).

Figure 5.1: The Free State Province: Districts and Local Municipalities (Stats SA, 2022).

Historically, the Free State Province was identified to inhabit Sesotho people as per the Bantu Homelands Act (Municipalities of South Africa, 2023). Post Apartheid, the population in the province, as with other provinces in the country, has diversified due to migration and job-seeking practices (Reed, 2013). Afrikaans is widely spoken throughout the province, as it is the first language for most White and Coloured people. Other languages spoken in the Free State are Setswana, Xhosa, and English. Although relatively few people speak English as a first language, English is becoming increasingly important as the language of business and government (Municipalities of South Africa, 2023; Stats SA, 2022;). The Mangaung Metropolitan Municipality is situated in the centre of Free State, and is bordered by six provinces, namely Gauteng, Eastern Cape, Northern Cape, KwaZulu- Natal, and Northwest. Along its border, one also finds the Kingdom of Lesotho (Municipalities of South Africa, 2023). The Lejweleputswa District Municipality borders the Northern Cape and Northwest Province. The district makes up almost a third of the province and comprises five local municipalities, with approximately eighteen towns distributed throughout (Municipalities of South Africa, 2023).

The Thabo Mofutsanyana District Municipality borders Lesotho and the provinces of KwaZulu-Natal and Mpumalanga. It covers six local municipalities and has twenty-five cities/towns within the municipality (Municipalities of South Africa, 2023). The Xhariep District Municipality is bordered by the Mangaung Metro, Eastern Cape, Lesotho, and Northern Cape. Three national main roads pass through this area. It is the largest district in the province and is comprised of three local municipalities, including twenty-one towns (Municipalities of South Africa, 2023). Table 5.1 demonstrates the geographical outline and location of the Free State districts and municipalities.

Table 3.2: Geographical location and municipality of the research population

Name of Institution	City/Town	Local Municipality	Main Municipality	Participants per institution
Institution 1	Ladybrand	Mantsopa	Thabo Mofutsanyane	1
Institution 2	Botshabelo	Mangaung Metro	Mangaung Metro	2
Institution 3	Welkom	Dihlabeng	Lejweleputswa	3
Institution 4	Welkom	Matjhabeng	Lejweleputswa	2
Institution 5	Bethlehem	Dihlabeng	Thabo Mofutsanyana	3
Institution 6	Trompsburg	Kopanong	Xhariep	2
Institution 7	Smithfield	Mohokare	Xhariep	1
Institution 8	Mangaung	Mangaung Metro	Mangaung Metro	4
Institution 9	Mangaung	Mangaung Metro	Mangaung Metro	3
Institution 10	Trompsburg	Kopanong	Xhariep	1
Total Participants:			**22**	

3.4.3. Inclusion and Exclusion criteria

3.4.3.1. Inclusion criteria

For this research study, the participants had to comply with the following criteria:

- Be a dietitian registered with the Health Professions Council of South Africa (HPCSA) and worked specifically within the field of maternal and child health;
- Work within a public health institution in the Free State province;
- Consult with Sesotho-speaking mothers; and
- Give written informed consent to participate in the study.

3.4.3.2. Exclusion criteria

For this research study, the following was excluded:

- Participants who did not work within the field of maternal and child health; and
- Participants who did not consult with Sesotho-speaking mothers.

3.5. Data Collection

In this section, the researcher discusses the process followed to collect data.

3.5.1. Data collection techniques

Initially, the researcher identified and framed the nature of her research question through the development of aims and objective outlined in Chapter one. The researcher then proceeded to research the scope of study and critically evaluated existing research on language barriers and its associated concepts, in Chapter two.

In Chapter three, the researcher discusses the research methodology in detail as indicated in section 3.1 – 3.4. The data collection process is explained in this following section as is characterized by the collection of data to achieve the aims and objectives of the study. This process involved the collection of data through the adoption of the qualitative phenomenological study design.

3.5.2. Process of data collection

For this research study, ethical approval was obtained from the Health Science Research Ethics Committee, at the University of the Free State. After ethics approval was obtained, permission was obtained from the Free State Department of Health and relevant authorities in the hospitals and PHCs' (Appendix B). Informed consent (Appendix D) was obtained prior to conducting the interview sessions. Participants were given an information pamphlet (Appendix C) on the study before the interviewing process. The study process of data collection is explained below.

Face-to-face interview sessions were conducted with participants to gain a detailed account of their experiences and viewpoints (Botma et al., 2010). The interviews were conducted in a private room as identified at each institution and they were approximately 20-30 minutes long. Thereafter, semi-structured, open-ended questions were asked (refer to Appendix E). Qualitative research uses open exploratory research questions and emphasises gaining an understanding of the phenomena being studied (Botma et al., 2010; Nieuwenhuis 2016). The interview sessions were recorded, and the researcher kept field notes during the interviews as discussed in section 3.5.4.

3.5.3. Explorative Study

The researcher conducted an explorative interview and piloted the questions with one participant (Botma et al., 2010). A participant who met the inclusion criteria was purposively sampled to test the interview (Maree & Pietersen 2016). A face-to-face, semi-structured interview (Nieuwenhuis 2016) was conducted at a prearranged venue. Permission was be obtained from the participant's institution prior to the conduction of the exploratory study (Appendix B). The participant was given the information pamphlet (Appendix C) and was requested to sign the consent form (Appendix D). The researcher used the interview template form (Appendix E) to conduct the interview. The exploratory study highlighted possible barriers to the research, and provided clarity on the recruitment process, probing of questions, and evaluated the time required to conduct the interview. The data obtained in the exploratory study was used in the main study, considering that the interview questions remained the same (Botma et al., 2010). The exploratory study was recorded via a voice recorder and transcribed by the researcher.

3.5.4. Field notes

In addition to the voice recordings, the researcher kept field notes which provided a narrative account of "what was happening in the field" (Polit & Beck, 2017). Although field notes are intended for the researchers' own purposes, they should not be overlooked. Utilizing field notes is a necessary tool towards developing quality data analysis. It also confirms to the researcher that their observations were accurate (Creswell & Creswell, 2018). Field notes are categorized as either descriptive or reflective. Descriptive notes typically include factual encounters of the interview dialogue and the studied phenomenon. Whereas reflective notes contain the researcher's perceptions of assumptions, and feelings (Polit & Beck, 2017).

The researcher took descriptive field notes during this study to record the objective observations of participants. The field notes assisted the researcher in recollecting dialogue and body cues such as participants facial expressions, and body language (Phillippi & Lauderdale, 2018). This helped the researcher to gain more insight into the complexity of language barriers, as body cues added more context to the voice recordings. For example, in some instances, body cues reiterated the frustration that some of participants expressed when navigating language barriers. Moreover, Phillippi & Lauderdale (2017), has reiterated that field notes enrich data by providing contextual information, and enhancing trustworthiness.

3.6. Data Analysis

In the following section, the researcher describes the data analysis process.

3.6.1. Data Analysis process

The recorded data related to participants' lived experiences were transcribed by the researcher. One round of member checks was conducted with each participant. The researcher emailed the data transcripts to each participant to solicit their input and ensure that true data was gathered. All the transcribed data was analysed by the researcher and reduced to significant statements or quotes, after which these statements were combined into themes, until data saturation was reached (Creswell & Creswell, 2018).

Qualitative data analysis software can serve as a useful and effective platform to manage, categorise/code and organise data. These qualitative data analysis packages included the NVivo software (Nieuwenhuis 2016). The transcribed interviews were imported to the NVivo

12 Pro software programme, which enabled the researcher to organise and analyse data to draw deep insights. The researcher coded the data to identify themes and trends (NVivo, 2022). It is crucial to reiterate that computer software cannot replace the value of the human mind and that the researcher still played an integral role in processing and interpreting the data (Nieuwenhuis 2016). Table 3.3 explores the various steps that were involved in the data analysis process.

Table 3-3 Data Analysis Process *(Creswell & Poth, 2018)*

Step 1: Managing and organising the data	The transcribed notes were imported into the NVivo software programme
Step 2: Read and developed a general sense of the emergent ideas	The researcher read through the data to obtain a general sense of the emergent ideas. The researcher reflected on the information and summarised general thoughts. Liaison with study supervisor was done to communicate reflections
Step 3: The data was coded	A detailed analysis of the data was conducted to identify and assign coding categories. The codes were assigned to units of text. The text was then segmented, categorised, and labelled
Step 4: Described the data and identified themes	Three major themes were identified, and codes were assigned to the themes. These themes were supported by literature and developed into textural and structural models
Step 5: Assessed and developed the findings	The researcher discussed the three themes (with accompanying sub-themes) in detail using perspectives and quotations from participants
Step 6: Interpreted and visualised the data	The meaning of the data was interpreted, and a point of view was created. The themes were discussed with the study supervisors. The data is being reported through a dissertation

3.6.2. Data Saturation

Data saturation refers to the concept whereby the researcher has reached a point where no new information can be extracted from the data that adds to an understanding of the category (Creswell & Poth, 2018). Data saturation was reached at interview number 22.

3.6.3. Textural and Structural interpretation of data

The researcher used the extracted themes to develop textural, structural, and combined textural and structural descriptions of participant's experiences (Creswell & Poth, 2018). A textural description refers to what participants experience. Whereas a structural description refers to how participants experienced it in context to the phenomenon (Creswell & Poth, 2018), which related to language barriers.

3.6.4. Data Management

All the written data (i.e., field notes and Appendix C, D and E) is stored in a secure lockable storage unit. Raw data was only known to the researcher. Electronic data is saved on a secure laptop in an encrypted password file; the password is only known to the researcher. Once the data was analysed, the audio recordings were destroyed. Data will be kept for ten years after the study.

3.6.5. Limitations of the study

The study sample is relatively small and may not express the views of all dietitians working with Sesotho-speaking mothers within maternal and child health. Since the researcher is a dietitian, bias may have been exhibited while interpreting information during the data analysis process. Therefore, the researcher liaised closely with her study supervisors and used scientific references to minimize the possibility of bias. Two participants out of the 24 identified participants were unable to partake in the data collection process however this was a minor and insignificant limitation. In addition, the researcher may have fallen privy to insider researcher. The researcher further discusses ethical consideration in section 3.8. which helped minimize the impact of the limitations of the study.

3.7. Role of the Researcher

The researcher aimed to adhere to all the relevant ethical considerations. The researcher ensured that participants were guided and led professionally and appropriately throughout the interviewing sessions. The researcher was responsible for the conduction and the transcription process. Following this, the researcher sorted, coded, and organised the data through the NVivo software programme. The interpretation and findings of the data remained the ultimate responsibility of the researcher.

3.8. Ethical Considerations

At the start of the study process, the researcher designed a research proposal outlining the research process and methodology. This proposal underwent a strict and extensive ethical review process at the Health Sciences Research Ethics Committee (HSREC) at the University of the Free State. Creswell and Poth (2018), emphasize the importance of maintaining ethical integrity in all phases of the research process. This implies that the researcher had a responsibility not to harm participants involved in the study. Furthermore, the researcher also had a duty to prioritize research principles and not allow their personality to cloud their judgement and interpretation of the data (Macfarlane, 2009). The maintenance of research principles before personalities was viewed as crucial to the researcher.

Researchers often use research approaches to promote integrity. These approaches may be principle-based which portrays ethical conduct as adhering to ethical rules, duties, or responsibilities (Resnik, 2012). In contrast, MacFarlane (2009) indicated that virtue-based approaches provide adequate guidance for ethical decision making and aid in educating researchers on morality. Virtue-based and principle-based approaches to ethics can exist synergistically to promote research integrity (Resnik, 2012), therefore the researcher incorporated both approaches in this study.

3.8.1. Principle-based ethics

Principle based ethics are ethical guidelines and codes of conduct implemented by researchers and are usually framed in terms of rules, duties, or responsibilities. (Macfarlane, 2009; Resnik, 2012). The Nuremberg Code represents a profound set of established ethical and moral principles which is regarded as the cornerstone of medical research, as explored in Table 3.4. The researcher structured this current research study's methodology around the Nuremberg Code.

Table 3-4 The Nuremberg code (Macfarlane, 2009; Miracle, 2016)

Voluntary consent of participants is crucial
Participants may withdraw consent at any time
The results should be for the advancement of society
The risk should not exceed the humanitarian benefit
All safety precautions must be taken
The research design should be justified and based on expertise
The investigator must be scientifically qualified
The research study must be terminated where participants' health is threatened

In 1979 the United Nations National Commission developed what became known as the Belmont Report to strengthen the safety of human subjects in biomedical and behavioural research (Miracle, 2016). This commission was an extension of the Nuremberg code and identified three key principles for the ethical conduct of research. These principles included respect for persons, beneficence, and justice (Resnik, 2012; Miracle, 2016).

Respect for persons is comprised of two convictions, namely autonomy and protection of those participants with diminished autonomy. Autonomy in research refers to the ability of participants to make a voluntary informed decision, after being empowered with all the relevant information relating to the study (Czech et al., 2018; Miracle, 2016). The researcher in this present study acknowledged the importance of autonomy and ensured participants were well informed on the nature of the study before conducting the interviews. Participants received an information pamphlet prior to the interview to allow them sufficient time to make an informed decision. Thereafter, on the day of the interview, the researcher reiterated the study information to reinforce autonomy.

Beneficence refers to the degree to which participants are treated in an ethical manner Two general rules have formulated as expressions of beneficence, namely do not harm, and maximize possible benefits and minimize possible harms (Czech et al., 2018; Friesen et al., 2017). The researcher conducted research in beneficent manner and post the data collection process, no participants underwent any harm. The main purpose of the researcher was to shed light on language barriers and present a benefit in the form of insight and solutions to the experienced language barriers.

Conceptions of justice ensure that the selection of research subjects is fair and must be gauged in such a way, that the element of manipulation is excluded (Czech et al., 2018). The researcher in this present study ensured that participants were systematically selected via purposive sampling, and not simply because they were easily accessible. Hence the researcher interviewed participants across four districts in the Free State. Furthermore, the researcher selected participants on the basis that they were directly related to the problem being studied, i.e., language barriers between them and Sesotho speaking mothers. The researcher also aimed to ask questions in such an objective manner to avoid the element of impressionability or projecting her own opinions onto participants. These measures decreased or perhaps excluded the element of manipulation and enhanced the principle of justice.

3.8.2. Virtue-based ethics

MacFarlane (2009) and Resnik (2012) discussed six scientific virtues which provides guidance on ethical decision making during the research process (Resnik, 2012). These ethics include courage, respect, resoluteness, sincerity, humility, and reflexivity. The researcher adopted these virtue-based principles and incorporated them in the interview process. The researcher also applied reflexivity and collaborated with the study supervisors to gain a diverse perspective on the data collected. Overall, the researcher was satisfied that the research participants were treated with respect, sincerity, and integrity.

3.8.3. Benefit/risk ratio

The collected data is stored in a secure password encrypted file on the researcher's computer. The researcher has sole access to the data. Participants' names and particulars and relevant institutions does not appear in the dissertation, nor will it appear in future published articles. However, verbatim voice recordings were taken and may appear in the results and/or publication. Participants consented to the use of their verbatim voice recordings. Moreover, participants were offered no immediate benefits or remuneration to partake in the study.

3.8.4. Informed consent

It was vital for participants to understand what they there were partaking in. Therefore, the researcher ensured:

- Transparency throughout the research process by informing participants and all stakeholders on the purpose of the study, the relevant procedures that followed and their rights related to participation.
- Confidentiality by guaranteeing that the data obtained cannot be linked to any specific person or institution.
- Informed voluntary consent was obtained from participants.
- Participants consented to the data being recorded and transcribed before the interviewing process.
- Participants understood that they were free to withdraw from the study at any point. The study results were communicated to participants via member checks for verification and to ensure the accuracy of the data.
- Adherence was maintained to the ethical guidelines specified in the Ethics and Research Statement of the Ethics Committee of the Faculty of Health Sciences, at University of the Free State.

3.8.5. Triangulation

In the present study, triangulation proved to be a useful strategy for ensuring reliability. In order to provide supporting evidence for the research findings, themes, and perspectives, the researcher gathered and analysed data from a variety of literature sources before triangulating the information (Botma et al., 2010; Creswell & Poth, 2018).

3.9. Rigor of the Study

Nieuwenhuis (2016) suggested that qualitative research may be more rigorous in data collection and less intensive in data interpretation. However, this does not yield qualitative research as any less scientific if data collection and analysis are rigid and structured.

Ensuring trustworthiness in a study is a conclusive test to solidify the value and success of data analysis, findings, and conclusions (Nieuwenhuis, 2016). Therefore, the following criteria was implemented to ensure the trustworthiness of the study:

3.9.1. Credibility

Credibility relates to the degree to which research findings was trustworthy, believable, and consistent with reality (Nieuwenhuis, 2016). Credibility was ensured by executing a well-established research design and methodology. The latter included purposive sampling, detailed data collection methods and triangulation (Nieuwenhuis, 2016) as per a qualitative research paradigm. Each research study is accompanied by limitations throughout the data collection and analysis process (Nieuwenhuis, 2016). Therefore, the study's limitations outlined in section 3.6.4. provides the reader with context as to how the researcher reached their conclusions.

3.9.2. Dependability

Dependability is closely associated with consistency and credibility. It relates to the degree to which research procedures and findings could be replicated by other researchers (Nieuwenhuis, 2016). Dependability is exhibited through the research design, methodology, data collection, data analysis and the researcher's reflection (Nieuwenhuis, 2016). The researcher kept field notes. Data collection techniques were well documented through written transcripts (questionnaires), and voice recordings. Data analysis techniques were documented through typed transcripts and the NVivo software.

3.9.3. Confirmability

Confirmability relates to the degree to which other researchers could confirm research findings. It is associated with a degree of neutrality and was strengthened in the absence of the researcher's bias (Nieuwenhuis, 2016). The researcher regularly consulted with study supervisors throughout the data collection and analysis process to ensure that bias was reduced. Participants were all consulted to ensure that the researcher has correctly interpreted the data. Participants confirmed in writing that they agreed with the researcher’s interpretation of the data.

3.9.4. Transferability

Transferability relates to the degree to which research findings were generalized or transferred to other contexts (Nieuwenhuis, 2016). Purposive sampling is a technique used where the researcher selects participants who can provide in-depth knowledge of the studied phenomena (Nieuwenhuis, 2016). The researcher selected participants who worked

specifically with Sesotho-speaking mothers of IYC. The study's trustworthiness was enhanced by avoiding generalizations through focusing on understanding participants' perspectives.

3.9.5. Credibility, Confirmability & Dependability

Member checks are a measure to ensure that the data collected Is accurate by verifying it with participants (Creswell & Poth, 2018; Nieuwenhuis, 2016). During data analysis, one round of member checks was conducted by the researcher to ensure that the data has been correctly interpreted therefore ensuring reliability and validity.

3.9.6. Credibility, Confirmability & Transferability

Digital recordings can improve the trustworthiness of a study. Verbatim accounts of participants' interviews were recorded and thereafter transcribed. The researcher transcribed and coded the data to foster a deeper understanding of the data.

3.10. Summary

The most appropriate research paradigm and design was selected to gain an insightful view into lived experiences of dietitians working with Sesotho speaking mothers. The researcher discussed a detailed description of the research approach and methods, including the data collection and analysis process. Readers were introduced to the study participants through an explanation of the study setting, research population and units of analysis. The researcher delved into the ethical considerations, explored their role in the research. Furthermore, methods to ensure rigor of the study were outlined to provide the reader with the assurance that the study was well planned and executed.

CHAPTER 4 STUDY RESULTS

This chapter discusses the study's findings and provides the reader with an overview of the participants' demographics before presenting the data thematically.

4.1. Participants' demographics

Data was collected from participants working in ten public health institutions in the main Mangaung Metro Municipality and three District Municipalities in the Free State province. The exploratory study was conducted on one participant and was included in the results. The study included 22 dietitians employed at district, secondary, tertiary, and regional health facilities. The ages of the participants varied from 24 to 39 years.

Three of the participants were community service dietitians (CSDs). Seven participants had one to five years of work experience, four participants had five to ten years, and eleven participants had ten or more years of work experience. Two participants indicated Sesotho as their first language, while 14 participants identified as Afrikaans. Sepedi was reported as the first language of five individuals, whereas Seswati was reported by one participant. Seven participants spoke more than one language fluently besides their home language. Setswana, Seswati, Zulu, Tsonga, Ndebele, Xhosa, and Dutch were among these languages. Every participant in this study was fluent in English. Table 4.1. provides an overview of the demographic traits of the study participants.

Table 4-1 An overview of the demographic traits of the study participants

Participant	Age	Years of experience	Institution Level	First language	Language Fluency
Participant 1	39	12	Tertiary	Afrikaans	Afrikaans & English
Participant 2	31	7	Tertiary	Afrikaans	Afrikaans & English
Participant 3	26	4	Tertiary	Afrikaans	Afrikaans & English
Participant 4	31	7	Tertiary	Afrikaans	Afrikaans & English
Participant 5	27	CSD	District	Afrikaans	Afrikaans & English
Participant 6	25	3	District	Afrikaans	Afrikaans & English
Participant 7	25	2	District	Seswati	Seswati, Xhosa, Ndebele, Sepedi, Sesotho & English
Participant 8	24	1	Secondary	Sepedi & Setswana	Sepedi, Setswana, Sesotho, Zulu, Tsonga & English
Participant 9	36	13	Secondary	Afrikaans	Afrikaans & English
Participant 10	35	12	Secondary	Afrikaans	Afrikaans, Dutch, & English
Participant 11	36	13	Regional	Afrikaans	Afrikaans & English
Participant 12	28	6	Regional	Afrikaans	Afrikaans & English
Participant 13	21	CSD	Regional	Sepedi	Sepedi, Setswana, Sesotho & English
Participant 14	39	16	District	Sesotho	Sesotho, Setswana & English
Participant 15	39	16	District	Afrikaans	Afrikaans & English
Participant 16	39	16	District	Afrikaans	Afrikaans & English
Participant 17	28	3	District	Sepedi	Sepedi, Setswana & English
Participant 18	37	6	District	Sesotho	Sesotho, Sepedi, Setswana & English
Participant 19	24	3	District	Sepedi	Sepedi & English
Participant 20	27	3	District	Sepedi	Sepedi & English
Participant 21	34	11	District	Afrikaans	Afrikaans & English
Participant 22	24	CSD	District	Afrikaans	Afrikaans & English
Mean (average)	31	8			

4.2. Thematic presentation of the study findings

The study findings follow in the next section. Table 4.2. below is a summation of the main themes and the associated sub-themes.

Table 4-2 Study themes and associated sub-themes

Theme	Subthemes
Theme 1: Dietitians' lack of proficiency in Sesotho	• Inability of dietitians to communicate in Sesotho • The negative impact of lack of Sesotho proficiency on nutrition outcomes • Mothers' proficiency in English or Afrikaans affected by age and socio-demographics • Sesotho speaking mothers who were resistant to receive healthcare services in English • Language barriers resulting from differences in spoken language • Language barriers resulting from the language diversity in South Africa • The role of privilege and power in language relations
Theme 2: The reported difficulty in explaining.medical terms/concepts in Sesotho	• Reasons for the difficulty in explaining the identified medical terms/concepts in Sesotho • Identified medical terms and concepts that were difficult to explain in Sesotho
Theme 3: Strategies and recommendations to overcome the language barriers	• The use of interpreters • Codeswitching and Language learning • Sesotho educational material and Visual aids • Review of the Human Resource policies in institutions that employ dietitians • Review of the Language Policy in schools and universities • Other strategies and recommendations to overcome language barriers

4.3. Theme 1: Dietitians' lack of proficiency in Sesotho

Language barriers were frequently encountered during nutrition consultations because most participants could not speak Sesotho fluently. The factors related to language barriers are described in the sub-themes below.

4.3.1. Dietitians' inability to communicate in Sesotho

Fourteen of the participants reported that they were not fluent in Sesotho.

"I can't speak, I can't actually speak Sesotho…" (P1)

"I really need a language course because my Sesotho is really not adequate." (P8)

"My Sesotho is very surface level. So, I am only able to communicate, in commonly known, like problems that we usually pick up with the mothers. So, if something comes up that is new, then I will not be able to communicate with the mothers." (P6)

The participants stated that they faced language barriers when consulting with Sesotho-speaking mothers because they were unable to communicate effectively in Sesotho.

4.3.2. The negative impact of lack of Sesotho proficiency on nutrition outcomes

A few participants expressed that their inability to speak Sesotho hindered them from providing the best dietary intervention.

"… So sometimes it really feels like we are not helping the patients in a way that we should because we are not speaking their language. Sometimes we feel, you know, that we are not able to do our jobs properly." (P9)

Participants mentioned that the number of patients that they could see in a day was reduced due to language barriers, which also affected the amount of time available for patient consultations.

"At the end of the day, I can only see like a few patients. Where if, I could speak the language, then I would have been able to see more patients". (P22)

It became more difficult when the participants had to take a diet history to determine the primary cause of the patient's disease.

"If there's a language barrier, then it's very difficult for me to get a diet history… to see why they are malnourished". (P12)

A participant felt that patients wanted to speak their home language, especially during times of stress.

"…if I can go to breastfeeding…it is a stressful situation. And as soon as you are in a stressful situation then you tend to go back to your roots. And when you are at your roots, that's when you speak your home language…" (P11)

According to some participants observations', an inability to communicate in Sesotho was perceived to result in adverse nutrition outcomes, thereby leading to readmissions of children with malnutrition.

"At times I just picked up and I do not want to throw my colleagues under the bus, or anything like that. But when we have had readmissions of SAM's and I had gone back to ask them why the child is back. That communication happened in English, we never checked if the patient understood what you said to them…" (P6)

Six participants expressed frustration at dietitians who spoke to Sesotho-speaking mothers in English or Afrikaans. Three of these participants were Sesotho speakers, and the other three were Afrikaans speakers. These participants believed that dietitians should make more concerted efforts towards learning Sesotho, particularly if they had been working with the same patient

population for years. Moreover, both the Sesotho and Afrikaans-speaking participants believed that some dietitians are generally unwilling to learn a new language. This applied to both Black dietitians who were unwilling to learn Afrikaans and White dietitians who were unwilling to learn Sesotho.

"…if 14 or 15 or 20 years down the line you still do not know how to communicate in a particular language with your patients. Who you have been seeing almost every day of your lives, so I don't think a lot of dietitians are willing to learn." (P10)

"There are still some black dietitians who are not able to speak Afrikaans and they have also been in the field for a very long time. So, it's not even racially motivated in a way. I think people are not willing to learn languages they are lazy to learn languages, so ja." (P10)

Participants believed that some English or Afrikaans-speaking dietitians are not communicating health messages effectively to Sesotho-speaking mothers. This led to the mothers misunderstanding the health information that the dietitians tried to convey. In addition, participants felt that these dietitians could make more efforts to meet patients at their language level. These proposed efforts are discussed in theme three.

A viewpoint was expressed in relation to Sesotho-speaking mothers or patients who can speak English. It was reported that mothers do not necessarily feel at ease conducting nutrition consultations in English simply because they are able to speak the language. The notion was that regardless of their degree of English proficiency, mothers should still be able to communicate in the language of their choice.

"There are people who went to an English school. They might have been educated in English, but it doesn't necessarily mean that they are comfortable in the English that you want to communicate to them." (P6)

4.3.3. Mothers' proficiency in English or Afrikaans affected by age and socio-demographics

It would seem for some of the participants that most Sesotho-speaking mothers were able to communicate in some English or Afrikaans. Although this was not always done with proficiency, it helped to bridge the language barrier. Participants identified reasons why mothers could not speak English or Afrikaans. One participant attributed some mothers' lack of proficiency in English and/or Afrikaans to illiteracy.

"So, we do sometimes find a handful of mothers… perhaps illiterate mothers who didn't attend schooling..." (P2)

Another reason was attributed to mothers who had not been exposed to media in languages other than Sesotho.

"We do find mothers who haven't been exposed to other languages apart from Sotho. Since they have not attended schooling or haven't been exposed to media. So, it's just the radio or tv. So, there are instances, where perhaps they only speak Sesotho, and they haven't heard much else." (P3)

The participants reported that the mothers' age and their residential area also contributed to their lack of proficiency in English and Afrikaans. According to the participants, the majority of young mothers can speak English, while elderly moms and grandmothers frequently speak Afrikaans.

"Most of the younger people can speak English, the older people are more Afrikaans that I've seen. So, let's say it's a granny, the chance that she'll understand Afrikaans is bigger than that she will understand English". (P1)

The extent of the language barriers also depended on the location of the health facility. Participants who worked in rural health facilities often reported that mothers could only speak

Sesotho. Meanwhile, in urban areas such as towns or cities, most mothers could communicate in either English or Afrikaans.

"So, it just would be the older ones that can speak English and Afrikaans and the ones that live in more rural areas, those who lived on farms, or just faraway towns, or so on." (P2)

"The younger mothers are able to speak English cause they attended English schools and live in towns that are exposed to English…" (P21)

4.3.4. Sesotho-speaking mothers are resistant to receiving healthcare services in English.

Many of the participants expressed that some mothers displayed resistance to communication in English and preferred to receive nutrition counselling in their home language.

"Sometimes I know a mother can understand English, but the moment she hears that I cannot speak her language then it's just like she just closes off. Yes, they are resistant and just because I cannot speak their language, they just refuse to just meet me halfway (laughs)…." (P9)

Participants reiterated that the attitude and approach of the dietitian might be a redeeming factor and determine whether resistance from the mother will occur or not. Nutrition consultations were often unsuccessful if dietitians displayed a sense of entitlement when speaking Afrikaans or English. In contrast, mothers were perceived to be more understanding of the dietitians' lack of proficiency in Sesotho when dietitians were more accommodating and made efforts to converse in Sesotho.

"It's more in the way that you, not so much the language, but more so how you approach the patient, with what attitude you convey the information". (P3)

"But in most patients, if they see that you try to speak in their language, they respect you more…" (P5)

"I feel if you know at least one indigenous language, then the rest will be so easy, and I've definitely seen people treating you differently. The moment they see that you are trying to speak their language. My husband's family is very high up in Limpopo, and their grandfather speaks Pedi. Like people might be pushing up in front of you in the queue or they would be very rude but then he would speak Sepedi to them. And their outlook and everything just changes. So, you just get a bit more respect." (P21)

Participants acknowledged that mothers do have a right to receive healthcare in the language of their choice. So, it was completely reasonable for mothers to expect to receive healthcare in their language of choice.

"It's just maybe trying to prove a point I don't know cause I mean, they do have a right to receive service in a language of their choice. They do have it so maybe it comes down to patients' rights and they know it and they should receive healthcare in their language of choice". (P9)

4.3.5. Language barriers resulting from differences in spoken language

Afrikaans and/or English-speaking participants expressed their frustration regarding the differences in spoken language. Words that are known to mean one thing, e.g. "Checkers", – which refers to a supermarket, have a different meaning to members in Sesotho-speaking communities.

"… now in the Free State. They really have different words for different things. Like for example: Let's just take a normal bag like a shopping bag. They call it checkers. Fish oil is actually normal cooking oil, and they don't speak about toothpaste. They will call it colgate". (P21)

It seems participants wrongly assumed that such use of words mean that these words don't exist in Sesotho, when they in actual fact do.

"So, they have different brand names linked to different things. And I think it's because those words don't exist in the Sotho language so they will make up words. And you will find that the newest Sotho words are very English related. Ja, I don't think that they have the words in the Sotho language, so they make a common word". (P21)

4.3.6. Language barriers resulting from the language diversity in South Africa

Participants often consulted with mothers who spoke languages other than Sesotho. The experienced language barriers occurred with local South African indigenous languages such as Afrikaans, Xhosa, Pedi, Shangaan, and Zulu.

"It wasn't really difficult for me to communicate with Sesotho mums. But I did struggle to communicate with Afrikaans-speaking people because I'm from Limpopo and we do not really speak Afrikaans that side. So, when I came here, it's really… it's purely really Afrikaans speaking. Most of the things that I've done here Afrikaans it's Afrikaans based. I cannot communicate in Afrikaans at all". (P8)

Four of the participants were Sepedi speaking, and one participant was Setswana speaking, and they all expressed some difficulty when communicating with Sesotho-speaking mothers.

"I thought there is not much difference. So, I was surprised when they didn't understand what I was saying cause I took it like Sesotho and Sepedi is more related which is not really the truth. They are not in any way. They are different". (P7)

"Sesotho and Sepedi is more or less the same, but with some of the terms I don't even understand." (P17)

"Like Sepedi, it's just a little different from Sesotho." (P19)

One participant who spoke Sepedi and Setswana expressed that it is difficult to understand the different dialects because indigenous languages are so deep.

"Well, being Tswana, really does help, it does help. I'm not shocked when people say a lot of words in Sotho… I have that background and it only pushes you to a certain extent. Because the languages are so deep. They don't always relate when it comes to a certain point.' (P8)

Participants experienced the impact of migration across provinces and the influx of foreigners into South Africa. Interestingly, some participants recalled situations where language barriers were experienced because mothers had limited English proficiency and spoke international languages such as French (spoken in some parts of Africa), Mandarin (spoken in China) and Shona (spoken in Zimbabwe).

"I saw a Chinese diabetic one that could not understand any other language than Mandarin. And then his family came, and they had a little translator. So, I had to speak and then it will translate into Mandarin but that's what they used cause there's obviously no one in hospital that could speak Mandarin. That specifically. I've had patients, that, were French-speaking patients from higher up in Africa or you can get someone from Zimbabwe or Zambia. Those ones are a challenge because there isn't anyone to translate." (P1)

"Sometimes…they don't know how to translate it. and I actually found when I did one of my, …education, I think it was a Zimbabwean language where they actually don't have a word for immunisations or immunity. So, that was also difficult …to explain what it was." (P22)

"We have also a struggle with the Lesotho citizens who come here for healthcare or deliver babies here. And they also usually struggle with English and Afrikaans as well. So, then we have to get someone to help to translate." (P2)

4.3.7. The role of privilege and power in language relations

According to some participants, dietitians of Black African ancestry were inclined to receive more backlash or resistance from mothers for not being able to speak Sesotho.

"Most of the time, the backlash comes to Black and Coloured dietitians. They experience that with some patients… When it comes to a black person, they already expect that you are supposed to know a better level of understanding towards them. So, I think that's why most black dietitians that are not proficient in the language like Sesotho, would feel like patients give them more backlash for not being able to communicate in their language. Then what may be reported from their white counterparts". (P6)

A clear distinction was identified between Black and White Africans on this matter. Participants explained that it was because Sesotho-speaking mothers assumed a Black African in their territory could automatically speak Sesotho. They also expressed that Black African mothers are taken aback when Black African dietitians address them in the English language. Notably, the participants who said this were Black and the other White.

Participants further elaborated that Black African mothers do not express the same disdain when a White dietitian cannot speak Sesotho. There seemed to be an expectation that Black and Coloured dietitians should be able to speak Sesotho.

A few of the participants had the belief that speaking Sesotho or Zulu guarantees fluency in the other indigenous South African languages, which are spoken by Black Africans.

"… I feel Sesotho is the basic language that everybody understands. Am I not mistaken, or I think the Sesotho in the black Culture is like our English.". (P12)

"In all the languages, ja, any type of native language. A lot of people say that if you can understand Sesotho, then you can more or less understand the different languages…(P21)

"There are certain languages, that if you speak that language, you are able to communicate roughly, in almost all the languages. I think Zulu is one of those languages". (P10)

Some of the participants disputed this idea as they alluded that this perception relates to poor public knowledge around African languages at the exclusion of Afrikaans.

There was a perception among participants that mothers should be able to speak English because it is a universal language. Some participants believed that since they are Afrikaans speaking, and the mothers are Sesotho speaking, they should meet each other on common ground and speak English.

"… because most people study another language and I believe people should actually study English, in my opinion. And I go back to my opinion that everybody in South Africa should be able to speak English. Because it is the language of instruction". (P5)

"…What I always tell them is that I'm here to help them… and I can't speak your language. But we can speak in English because… its common ground so, ja." (P9)

Participants expressed that they felt some mothers felt ashamed that they couldn't English.

"Sometimes I think mums are ashamed that they do not understand English. Because English is glorified as the language of the smart people. Some of the mums, especially the younger mums, will pretend that they are fluent in English, just because they are embarrassed at the fact that they are not". (P10)

Participants felt that some dietitians often displayed a level of entitlement towards speaking their home language to Sesotho-speaking mothers. This was frowned upon by some of the participants because they felt that the dietitians were in the patients' territory and, therefore, had to make more effort towards learning the patients' home language.

"*I think dietitians can be more accommodating to patients." (P13)*

"*Nobody expects anybody to speak full Sesotho. But I think sometimes we have a level of entitlement to speak in English to patients." (P5)*

According to participants, some mothers occasionally viewed English-speaking dietitians as superior and authoritative. Additionally, participants indicated that when mothers claim they don't understand English, the help of an interpreter is occasionally enlisted. The patient then acknowledged understanding the dietitian after the dietitian began speaking in English in front of the interpreter. This reportedly occurred due to moms' presumptions that dietitians would communicate in "British English" or a sophisticated form of English.

4.4. Theme 2: The reported difficulty in explaining medical terms/concepts in Sesotho

The second theme delves into the medical words and concepts pertaining to the first 1000 days of life that participants found challenging to communicate to mothers in Sesotho. Two subthemes related to the theme will be covered.

4.4.1. Reasons for the difficulty in explaining the medical terms and concepts in Sesotho

Several participants mentioned that their lack of proficiency in Sesotho caused difficulties when they had to communicate some scientific words and concepts in Sesotho. Additionally, most respondents stated that they frequently had trouble finding the appropriate Sesotho terminology to explain medical terms and concepts. A few participants claimed not to be familiar with the Sesotho vocabulary. Some perceive certain scientific and medical words and concepts as non-existent in Sesotho.

"…the difficult thing about Sotho, that I have to say is, for some concepts there isn't a Sotho word. It's an explanation so it makes it a bit difficult…" (P16)

According to some, mothers comprehended medical and nutritional concepts more easily in English.

"…some Sesotho speaking people also don't know some words, quite a lot of languages are dying down. And English is becoming more dominant…" (P5)

"…if I explain in English, then I think it's better, I might be biased, but I feel that patients do understand better…" (P5)

To create Sesotho words that the patient can understand, participants stated that English words are sometimes "borrowed." All participants who could speak Sesotho confirmed this.

*"… In order for you to explain it, but we have something in Sotho or Pedi, where we say "fata" and that means to take an English word and turn it into Pedi. So, for something like hormone, we would say "Di-hormone"… but you can still hear that there is An English word in there: hormone. And it's still saying what we are trying to describe, but we don't really have a better word for it. But we call them "*ma-adingwa*" in English which means the words that you borrow from English and then modify it in order to fit that language." (P8)*

Several participants thought English was becoming more prevalent and Sesotho in the Free State was losing its indigenous roots. According to these participants, some Sesotho-speaking people know little about the original indigenous Sesotho. Participants who reported this spoke Afrikaans. They claimed that when they asked their Sesotho-speaking colleagues to act as interpreters, their colleagues would respond by claiming that they were unaware of the meaning of the specific medical terms or concepts in Sesotho. These would be colleagues who work in administration and medical departments.

"…You know, Sotho also changed a lot. They call it indigenous Sotho and then you have the more modern Sotho. I think the language is changing so much and the younger generation doesn't know the indigenous Sesotho. They have "Englishfied" it's so much." (P21)

This statement was made by a Sesotho-speaking participant.

"I don't know what hormone is in Sesotho." (P8)

Participants reported difficulty describing words that may impact the mothers' understanding of the concepts being discussed.

"I think neurodevelopment, just the complexity of that and even the gut permeability and how the physiology works. But we do try and, we really tried to explain it in the most basic way. But I don't always think the mums understand the importance or how critical it is." (P15)

"Dietitian is difficult to explain, usually when I have to introduce myself and say that I'm the dietitian. And so, I actually try not to use that word. So, I'm the one who works with the" dijo", or who works with the food. I make sure that the baby grows well other things that explain more what that term is, instead of actually using the term itself. Ja". (P2)

Many participants stated that they didn't really have trouble with explaining medical terms or concepts. Instead of using scientific jargon, participants used practical methods to explain medical terms/concepts; for example, participants used a fake breast to show the mother how to breastfeed appropriately. Interestingly, of the nine participants who expressed no difficulty in explaining medical terms or concepts in Sesotho, six were Afrikaans-speaking.

"You can see then sometimes they don't understand but if you work on the fake breast and you show them: this is the nipple. If you show them, if baby drink like this, this is painful, no milk will come out, baby must drink there (participants demonstrated on fake breast), and you can see them, go "ahhh" (patients expressing understanding)." (P1)

"…When I deal with kids with epilepsy and cerebral palsy then sometimes it is difficult, to explain to them in their home language. I would just make actions, like showing how a person with epilepsy would act, just falling randomly. Or just shaking, so try by all means to explain through symptoms, and not what the definition is." (P13)

"I think over the years I've learnt myself the basic wording and phrasing so that I can talk with them… I will state the scientific word and explain it in a basic way. And explain it in three different ways until I see, ahhh, the light goes on, and that she's understanding what I am saying…" (P11)

4.4.2. Identified medical terms and concepts that were difficult to explain in Sesotho.

The majority of the participants reported difficulty explaining nutrition and medical terms/concepts related to the first 1000 days of life in Sesotho. Collectively, the following medical terms and concepts (28) were identified as demonstrated in Table 4.3.

Table 4-3 Medical terms and concepts that were difficult to explain in Sesotho

Dietitian	The different food groups.
Exclusive breastfeeding	Complementary feeding
Mixed feeding	Formula mixing and preparation.
Epilepsy	Positioning and attachment in breastfeeding
Cerebral palsy	Explaining moderate and severe malnutrition
Feeding on demand	Disease pathophysiology involving body organs
Brain development	signs that the baby is getting enough breastmilk.
Fetus	Issues around iron and miscarriages
Pneumonia	Neurodevelopment
Insulin	Gut permeability
Hormones	Metabolic terms
Gestational diabetes	Psychological terms
Vitamins and Minerals	The clinical signs of malnutrition
Immunity	Effect of malnutrition on intelligence

4.5. Theme 3: Strategies and recommendations to overcome the language barriers.

The third theme aligned with the research objective to identify solutions to the language barriers experienced by dietitians and mothers of IYC. This theme describes various strategies and recommendations made by the dietitians to improve health communication. Many participants reported experiencing language barriers, as demonstrated in Themes one and two. As the interview came to an end, participants offered several suggestions for bridging the language barriers between mothers and dietitians.

4.5.1. The use of interpreters

The majority of participants stated that they relied on interpreters to navigate language barriers and that the personnel at their facilities are often helpful when it comes to interpreting. There were no dedicated and trained interpreters at any of the facilities in this study. As a result, Sesotho interpreters included nurses, nursing assistants, allied health professionals, physicians, administrative clerks, community health care workers, housekeeping personnel, and social workers.

"In the ward, I go grab the nearest enrolled nurse that will help me." (P12)

Dietitians occasionally asked Sesotho-speaking mothers to bring family members who could communicate in Afrikaans or English to their appointments to help with interpretation.

"… with the patients that we have a language barrier with, we always ask them to bring a family member with. That they are comfortable with or with whom they are living with, who understands either English or Afrikaans. "(P10)

Sometimes, other mothers and/or patients who understood both English and Sesotho served as interpreters, especially during group consultations. Therefore, these mothers could translate health messages between the dietitian and patient.

"…But most of the time, we are so short-staffed. So, if there is a mummy in the ward that can assist me and translate for me and try to help me get the necessary information that I need." (P12)

"…If it's in a group setting where there are two mothers who are both breastfeeding, and one can understand English very well and then they sometimes also translate." (P3)

Obtaining staff who could interpret was occasionally difficult since interpreters were not always available.

"Yes, sometimes I would say if I were in a clinic, everybody is busy and then you don't have an interpreter. So, it becomes a challenge there." (P17)

"I think it's a time thing. In many times, they don't see it as something that is in their job description. So, why should I do something that is not necessarily in my job description." (P5)

Finding other staff to interpret was particularly difficult in the presence time constraints.

"So, if you've got enough time, you can find someone, but if it's pressed for time… that will be a problem." (P1)

If interpreters were unavailable, mothers would be rescheduled to a different date when an interpreter would be available. Alternatively, mothers were given an educational pamphlet in Sesotho and referred to the nearest health institution where an interpreter or Sesotho-speaking dietitian would be available.

When it came to providing formula or supplements and nutrition prescriptions, participants would write the mixing instructions in English. Participants said they hoped the patients would have someone at home who could read it to them.

"When we give them supplements or formula and we write the instructions for them on a piece of paper. Cause because usually there is someone close to them or at home that would be able to read it to them. And explain to them. Uhm, and then we hope for that. There's no other way to say, we just hope for it." (P9)

"It is usually a community health care worker or any other professional who interprets. If that's not available, then we resort to a patient who is available to interpret. But then I usually ask the patient's permission if they are comfortable. If they are not comfortable then we reschedule, or I ask the patient to wait until we have somebody who is available to help." (P15)

4.5.1.1. The challenges of using untrained interpreters in nutrition consultations

For other participants, the practice of using untrained interpreters was problematic. Participants felt that asking other employees to interpret interferes with the employees' ability to perform their own job responsibilities. Similarly, some believed that asking other employees to interpret was akin to having someone else carry out the dietitians' duties for them. Furthermore, when untrained interpreters are used, they frequently do not have enough time to devote to educating mothers. This, in turn, affected the mother's access to sufficient and appropriate nutritional information.

"It's difficult in the ward for the sister to leave their work and come to help us with translations. "(P12)

"Because you must remember that it is not their duty … to now come to you and do all your things." (P3)

"But that is also like asking somebody else to do your job for you. In a way, that is how, not to offend anyone, but that is how it kind of seems." (P8)

Many of the participants recommended that the Department of Health should more efforts towards trained dedicated interpreters.

"Unfortunately, the department does not provide any translators which for me is very sad, because prisoners get translators at the court. But patients do not get translators in the hospital. So, for me it's an appointment gap." (P10)

Additionally, participants mentioned that dedicated interpreters would need to be specially trained in the department that they are working for. For example, interpreters working in the dietetics department should be trained on nutrition-related words and terms. Otherwise, it will create a barrier of understanding if they are not trained in the specific language used in the various departments. Moreover, some participants recommended that interpreters need to be specially trained to meet the demands and stressors that come with the healthcare environment. The question was posed: will interpreters be emotionally fit to handle the circumstances in the hospital setting? For example, will they receive counselling when they are faced with the death of patients or if they see cases that might be traumatising to them?

4.5.1.2. Factors that dietitians need to consider when using untrained interpreters

A key element in getting assistance with interpretation from other HCPs was the dietitian's demeanour and approach. Certain participants asserted that dietitians had to bear in mind that other HCPs are not obligated to provide interpretation assistance. Thus, dietitians should not feel entitled to assistance. According to these participants, approaching mothers with a positive outlook is helpful. When dietitians admit that they do not know Sesotho but still want to help mothers, mothers tend to be more understanding of the language barrier. Overall, involving a Sesotho interpreter was perceived as helpful in closing the language gap.

Some participants suggested that dietitians keep good working relationships with their colleagues, which will lead to colleagues being more helpful when interpretation is needed. Maintaining patient focus and trying to learn from the patient in terms of language and culture are equally essential.

"… and it is important to maintain good relationships with colleagues because you then also have to rely on them to help you to translate." (P3)

4.5.1.3. The use of interpreters in other languages

In this current study, language barriers were not limited to Sesotho. Sesotho and Sepedi-speaking participants also often made use of Afrikaans interpreters. Participants reported that sometimes Xhosa interpreters were also used. The presence of international languages spoken in South Africa also demonstrated a need for interpreters.

I've had patients, that, were French-speaking patients from higher up in Africa or you can get someone from Zimbabwe or Zambia. Those ones are a challenge because there isn't anyone to translate." (P1)

4.5.1.4. The reported disadvantages of using interpreters.

While interpreters were helpful in bridging language barriers, there were drawbacks indicated. Using interpreters with non-medical backgrounds, like cleaners or administrative staff, was indicated as problematic. Matters such as breaches of patient confidentiality and misunderstandings of nutrition information meant to educate the mothers were indicated as disadvantages of using interpreters.

"And in areas, where it's a bit of a challenge, uhm, you can get somebody to translate. But the very same person that is translating should be orientated on the part that you want to communicate. Cause at times even the translators must understand you, ja so" (P14)

Participants saw the use of interpreters as a breach of patient confidentiality. This is particularly true when sensitive subjects like the nature of the patient's diagnosis and socioeconomic status are discussed.

"Some words I am scared to speak about especially some of the diagnosis. I don't like the idea of the interpreters." P18)

Using interpreters may be seen as taking away from dietitians' ability to demonstrate empathy to mothers being consulted.

"But sometimes you also, say things with sympathy and understanding. And perhaps, they don't carry the message across exactly (Laughs) as you intended…" (P2)

When interpreters weren't readily accessible, problems also occurred. Dietitians then had to wait for them, which took up more time. As a result, the dietitian saw fewer patients overall.

"Not yet, but usually what the problem can be is that you have to wait for somebody to finish with their job before they can help you. So, it wastes a lot of time." (P22)

Additionally, there was a possibility that health information could be lost while using an interpreter. Many participants voiced concerns about not understanding what the interpreter was saying. They were, therefore, unable to determine if the interpreter was accurately and appropriately conveying the dietary education.

"So, I think that the translation is a really nice thing. I know that we can't really understand what they are translating…" (P22)

"…The reality is sometimes some information gets lost through a translator." (P4)

Some participants also reported that sometimes interpreters added their own advice or deviated from what the dietitian wanted to convey.

"There's also gaps for misinterpretation because I feel the community health care workers or the health workers or any workers also add their own things. That you did not say, or they leave out information that you wanted the patient to actually hear." (P15)

"Sometimes some information gets lost through a translator. You explain for 5 minutes (laughs) Then you hear the sentence translated in only one sentence…" (P14)

"I have also found (laughs) experienced that when the mom is translating, she gives her own advice (laughs)." (P4)

4.5.2. Codeswitching

Many of the participants also made use of code-switching to overcome language barriers.

"Yes, because my Sotho is very limited, I do speak of "tswekere" and "letswai", in the blood. So, I do use bits of pieces of the Sotho. And with that Sotho Pamphlet I will mix in, English and Sesotho in the pamphlet. So, then I feel that they understand nicely. You kind of give them the best of both." (P5)

"I use my broken Sotho words. I have a small vocabulary that I do have that I try to address some of the issues or at least." (P3)

Participants were able to overcome the language barrier by using code-switching. According to the participants, codeswitching appeared to show the mother that the dietitian was willing to try to communicate with her in Sesotho, which enhanced their level of interaction during nutrition consultations.

"Even when I ask about "dijo", instead of food, patients are more willing to engage with you. So, definitely with the mothers as well… if they see you trying it makes a big difference to them." (P4)

"But I've learnt, and I see that the more I'm willing to communicate in Sesotho, the more that they willing …to listen at that point. Because they see that I'm at least trying in the beginning or to communicate certain phrases to them in Sesotho." (P6)

Patients may believe that some dietitians (who are black, but not Sesotho speakers), are in fact Sesotho speakers, which is a reported disadvantage of codeswitching. Mothers end up talking to the Afrikaans- or English-speaking dietitian in Sesotho as a result, not realising that the dietitian doesn't actually comprehend and speak Sesotho well.

"I've seen a few times that if you speak a whole sentence in Sotho: in a way that they think you can speak Sotho and then they speak Sotho to you and then it's completely over my head" (P1)

Participants who engaged in codeswitching tended to misinterpret health information due to their use of an English or Afrikaans pronunciation when speaking Sesotho.

"… sometimes if I speak Sotho to them, I pronounce it so badly they don't understand me." (P5)

According to one participant, even well-intentioned attempts of English or Afrikaans dietitians who speak with a Sesotho accent could come out as disrespectful to the mothers.

"So, even switching your accent to more of a black accent, not to poke fun at the person, to increase their understanding of what you are trying to say to them. Because sometimes understanding can also be lost in accents." (P6)

4.5.3. Language learning

The majority of participants reported that interpreters are frequently unavailable. Dietitians were advised to make concerted efforts to learn Sesotho, even if it is merely the basics of nutrition. Attempting to communicate with mothers in Sesotho has also been demonstrated to enhance health communication since it demonstrates to the mother that the dietitian is trying to meet her needs. Positive effects on the mother-dietitian interaction were reported because of this.

"Whatever the language is that is spoken in that province. It is your responsibility to learn some words, so I think the responsibility also falls on us as well. To make sure that you try your best to learn." (P4)

"I think, its self-development. You just have to learn the language yourself, that's all. Start with the basics. If you know the basics, then you know it will make a big difference." (P17)

"Maybe the government can hire somebody who can teach people who do not know the language. But you know they will tell you about finances and stuff like that. So that one is tricky, so I guess you just have to learn the language." (P19)

Participants expressed that learning a new language like Sesotho is challenging. This was because it is a task that requires effort after work hours. This was reported as challenging as dietitians must attend to personal responsibilities after work. Some participants reported that staff in the DOH are already overworked and under pressure due to a high workload and understaffing. Staff members are also demotivated due to poor remuneration and financial incentives. Therefore, it was perceived as unfair to still expect HCPs to learn a new language, in the face of existing problems and challenges within the healthcare system. Participants also indicated that it is unfair to expect dietitians or any HCPs to learn Sesotho if it was not a requirement during the initial appointment process.

"And I mean time, is a problem because it will have to be out, and I don't think it will form part of my working day. So, it will be after hours, and we have children. I don't want to make any excuses but when you are a single mum, so time is an issue for me." (P9)

4.5.4. Sesotho educational material and Visual aids

The use of visual aids and educational material in Sesotho came up frequently as a recommendation to bridge the language barriers. Participants reported that mothers understood nutrition education better when they were able to see what was being communicated by the dietitian.

"I use visual aids, because an apple is an apple, in any language." (P16)

"I use pictures so at least I think if a person can't read, but they do see pictures then they can interpret those pictures." (P17)

"Making use of pictures and visual aids. it's really one of the easiest ways to get a message across, is by having a picture. (P16)

A few of the participants used nutrition pamphlets that staff members who spoke Sesotho helped interpret. On the other hand, several participants' educational materials were still lacking in Sesotho translations. Giving mothers nutrition pamphlets in Sesotho was found to be beneficial, particularly in situations where an interpreter was not immediately available. In this manner, the mother may take her time reading the material and planning her questions on nutrition education.

"And, if you always have, we have pamphlets, so if there isn't somebody at that moment who can help. You can leave a pamphlet for the mother to work through, and I always encourage them to think of questions. So, that when I come back again, they already have questions to ask and then we can go through that." (P3)

There have also been some criticisms about the sole use of educational pamphlets in Sesotho. According to a participant, dietitians cannot ensure that mothers will actually read the nutrition information thus, it is still crucial to explain the nutrition instruction verbally to them.

"And I think even if you have visual aids or pamphlets, you still need to explain to the patient to avoid misunderstandings, and you don't even know if they read the pamphlet." (P15)

Many of the participants recommended that the DOH should assist more in developing standardised nutrition education pamphlets in Sesotho as well as the other indigenous African languages.

"First see if we can have a standardised pamphlet that goes out…then all of us would be speaking out of one mouth. Then I think all the other gaps can be overcome with that as well." (P11)

"Get a consultant in that knows how to speak their language and draw pamphlets." (P12)

"If we can have the educational pamphlets in all the official languages. It will help… If you can help yourself and introduce yourself in different languages, the Department of Health can create those teaching aids." (P7)

4.5.5. Review the human resource policies in institutions that employ dietitians.

A few participants recommended that the DOH's Human Resources (HR) departments reevaluate their hiring procedures. A suggestion was that the DOH consider language proficiency when employing HCPs, as they currently do not assign dedicated trained medical interpreters. Moreover, it was mentioned that the Z83 form, which is an application for employment in the public sector, does provide for this by inquiring about the applicants' level of language proficiency. However, these enquiries are not considered or used in the employment process.

"They should have people specifically appointed for the role of a translator. If that's not possible, then they should make language requirement in the appointment and advertisement of posts. They do that in KZN, the rural posts, require you to speak Zulu fluently." (P10)

Some participants believe dietitians should be assigned to job posts compatible with the target patient populations' language. The DOH should assign dietitians with experience in community service and permanent placement to locations where they are fluent in the local language. Participants perceived that HR believes all Black individuals in the area are linguistically fluent in the local tongue. It was believed that they occasionally failed to consider the fact that Black South Africans speak a variety of indigenous languages.

"Well, I definitely think in certain posts that certain languages should be a requirement. Because at the end of the day, it's not the dietitian's fault if the department appointed them to a certain area and to a certain hospital. And it wasn't a requirement for them to speak a certain language, it can't be, really on their shoulders that there is a language barrier." (P10)

"I'm sure in those application forms that you indicate your fluent languages, that you are placed in an area where you can communicate fully because placing somebody in the area where they can speak fluently, is also setting them up for success while they are in that year." (P15

Some participants felt that making language a requirement would be unfair and go against the public service policy. Participants informed that it would limit dietitians to certain provinces. Thus, the overarching solution is to appoint dedicated interpreters.

"It's exclusionary, it goes against the public service policy. But at the end of the day not all jobs require the same amount of education and counselling that ours do. So maybe when we look at

dietetics, it's important to do language requirements and when we look at the tertiary levels and the workforce by enabling them to learn more indigenous languages." (P10)

Participants emphasised that it is crucial to have dietitians with varying racial backgrounds and levels of language proficiency employed within a single healthcare facility. Dietitians can interact with patients who speak Afrikaans and Sesotho in this fashion. Conversely, one participant felt that a dietitian appointed to work in a particular area should be a local to enable the dietitian to establish a stronger rapport with mothers.

"It's very important to have different races in a hospital setting so that we are able to communicate with our patients in that way." (P8)

"So at least hire somebody who is local somebody who is bilingual. Somebody who can speak, English is completely out of the picture. For example, if we are in Limpopo get somebody who speaks Sepedi, and Tsonga, because those are the languages that are native in Limpopo." (P8)

Some participants advised that the DOH's HR divisions consider that patients migrate all over South Africa. As a result, multilingual residents are more common in areas with a large Sesotho population. One participant noted that the patients in her health institution speak Shangaan and Venda. For this reason, the participant suggested that healthcare facilities hire multilingual interpreters and other healthcare staff members. Two participants related anecdotes of foreign doctors who are illiterate in English. The doctors from Cuba who were appointed to their hospital were mentioned. This was noted as a concern since interpreters were not assigned in these cases.

"And I think the government should really start looking at strict language requirements when making appointments. But I suppose it is unfair. I think, then it forces you in certain provinces (laughs) cause if you are comfortable in Zulu and you can speak Zulu, then you can work in KZN. And if you speak Sotho then you can work in the Free State. if you speak Afrikaans then you can work in the Northern Cape…" (P10)

4.5.6. Review of the language policy in schools and universities

Offering courses in the local languages is something with which the DOH can help. Many participants indicated that taking a language course in Sesotho would be appealing and beneficial to them.

"I always ask for Sesotho courses. I would love to do a Sesotho course, but it is not offered. So, I have to do it on my own funding, which is expensive, the language courses are very expensive, and it's after hours and it's at night… Even short courses in basic Sesotho then that would definitely help, and I think most dietitians would want to enrol." (P10)

"We can also have courses in other local South African languages." (P15)

"And then department of health, we started a few years ago, we started with basic sign language and Sotho. But it was a few classes and then it died down… So, there would be a nice area, if they could be a bridging course or something…even if it's just a basic course." (P16)

A recommendation was that schools (primary and secondary level) can also contribute towards eradicating language barriers. Participants stated that children learn and grasp learning new languages better than adults. Therefore, introducing language learning early will be beneficial. It was suggested that it would also contribute towards eradicating language barriers in South Africa on a large scale.

"It should start in primary education already so that that basis is already there, and it should start before grade one already, where children are able to learn a new language much easier." (P3)

"I think some people learn languages much easier. I think people learn languages easier when they are small." (P9)

Several of the participants stated that they were not given the opportunity to study an indigenous South African language at school. Even though some participants claimed to have studied Sesotho in school, it did not help them speak the language well. As a result, participants criticised the educational system for not teaching indigenous African languages to the extent that they could converse confidently and effectively.

"I mean I had Sesotho in school, but it doesn't really help, it doesn't really help you to speak the language." (P9)

"We didn't even have the option to take an indigenous language at high school. So, I think, the basic education systems can improve with regards to language." (P10)

"We had Sotho in school, but I still cannot speak Sotho. I still can't speak it, so I think the entire curriculum, should be better so that people can be equipped to do that, because it has never been it, it is really not, not adequate." (P3)

Some participants believed that the basic school system was also letting mothers down. They believed that since English is a universal language, students should not be allowed to graduate from high school without being able to communicate in English well. It was mentioned that academic institutions have made efforts to aid in eradicating language barriers. Most participants suggested that universities adopt more stringent language learning courses beginning in the first year and continuing through the fourth. Three participants said that while studying an indigenous

South African language in university, they could not recall what they studied. This resulted from the short length of the language training. Moreover, it was stated that dietitians are not taught how to navigate language barriers in healthcare interventions such as nutrition interventions.

"They should definitely be more languages given at varsity because it doesn't help that you get the degree, but you can't speak the language at all." (P5)

"But I think we should incorporate that more African languages are taught at universities, so that we can at least try to communicate better with them." (P5)

"I know in university, we had to take a native language as a subject, but it was only a quarter subject. And I feel like if I look back, it was first year and it's now four years later. If I look back, I really can't remember anything that we learnt. Maybe they should make it a 2-year course towards the end of your degree." (P22)

The language policy in universities was also reported to be limiting. It was reported that some universities offered indigenous South African language courses to students. These languages were usually the dominant language used in the province of the university. Therefore, if a dietitian studies at the University of the Free State, they are more likely to learn Sesotho. However, it becomes a challenge when the same dietitian ends up working in KwaZulu Natal, where the dominant language is Zulu. Participants reported that this is a disadvantage because it still leads to language barriers since the learnt language differs from that of the selected health institution.

"And if you think okay, we're in the Free State and say I can speak Sotho, but what if you move to the Eastern Cape what if you moved to Limpopo. What are you gonna do so it's difficult even if universities decided that they are going to add more languages." (P1)

Furthermore, participants stated that we would never truly reach a point where we can speak everyone's languages because South Africa has eleven official languages.

"I just think because we got 11 national languages. I don't think we will ever get to the point that everybody can speak everybody's language. Because we just have too many languages in South Africa." (P1)

"At the end of the day, because we have so many languages in our country. A lot of the dietitians, graduating end up working in places where they don't come from. I come from KZN, so I know a little but more Zulu than I know Sotho. So, the indigenous language for each province is unique. So, I think the solution is not necessarily for everybody to speak 11 languages, I think I either appoint translators or make language of requirement for appointment… or offer courses to employees who already struggle with the language in the places that they are employed in." (P10)

"It is such a privilege to be able to have so many languages and even although it's all broken languages and we all speak just like we want to (laughs). We can still communicate, and if you are willing to put your pride aside then you can communicate with anyone." (P3)

4.5.7. Other strategies and recommendations to overcome language barriers.

In order to get around language barriers, participants also reported utilising Google Translate and searching for common Sesotho words and phrases on internet search engines. A subset of the participants mentioned that they learned the language from Sesotho dictionaries and language manuals, while others said they learned it from patients and nurses.

"By learning through the nurses as we speak, so I try by all means to always speak Sotho when I am around with them." (P13)

"I mostly learn through the patients, and I am also helping myself, by googling common phrases. And then I am using that in my education with patients." (P6)

"Mostly through the patients, and I am also helping myself, by googling common phrases. And then I am using that in my education with patients." (P6)

When uncertain about a word, some participants stated they would text someone via WhatsApp or contact a colleague who speaks Sesotho. Those with a moderate level of Sesotho fluency, or those who could function without the assistance of translators, employed this tactic.

"Sometimes if I don't know I text someone if I cannot find somebody around here, I just text somebody whom I know is Sotho speaking... just ask the patient to wait for me, then I come back." (P7)

"I would ask the Sotho speaking people on WhatsApp what the words are..." (P19)

Creating a lexicon or glossary of nutrition-related terms and phrases was one of the other suggestions. This recommendation provided a breakdown of nutrition-related questions and mothers' replies in Sesotho. A few participants mentioned that becoming proficient in Sesotho when asking questions about nutrition is beneficial. Participants felt that dietitians should also

become proficient in the Sesotho interpretation of the mothers' replies. However, a concern relating to this was being unable to comprehend the response given by mothers.

"A dictionary or something but developed exclusively for nutrition with a couple of sentences and words. Just the basic things, that you know that you are on the right track and possible answers as well. It won't help because many times you can ask the question, but you cannot interpret the answer." (P15)

It was recommended that DOH develop video recordings of nutritional education in all the indigenous African languages. Then, dietitians can utilise these recordings for mothers during nutrition consultations. A participant also expressed that the national government must make more efforts to improve health promotion, such as advertising health messages in indigenous South African languages on platforms such as print, media, and radio, among others.

"We don't have Sesotho ads running while Isidingo is playing on breastfeeding. Why don't we also have Facebook pop ups that says visit your clinic or go ask a dietitian to attach the baby to the breast. I feel national Department of Health is failing us especially in the first thousand days of life and promoting breastfeeding." (P21)

Overall, most of the participants experienced language barriers during consultations with Sesotho-speaking mothers. Most of the language barriers were experienced by the participants themselves, whereas the others were observed in other dietitians. The consensus is that language barriers pose a challenge that needs to be addressed.

"*I just hope that these language barriers are addressed because it's very challenging". (P10)*

CHAPTER 5 DISCUSSION

The findings of the research study and the researcher's interpretations of them are examined in this chapter.

5.1. Research Overview

The research participants contributed varied perspectives on the data and provided the researcher with a deep understanding of the phenomenon. The researcher was, therefore, able to understand participants' lived experiences in their daily work activities (Botma et al., 2010; Nieuwenhuis, 2016). The research objectives were determined by asking participants open-ended questions (refer to Addendum E). The objectives were to determine the language barriers between dietitians and Sesotho-speaking mothers and the accompanying impact of language barriers on HCP-patient interactions. The objectives concluded with identified solutions to experienced language barriers as recommended by participants.

5.2. Discussion of results

Three themes and accompanying subthemes are explored in the subsequent sections.

5.2.1. Theme 1: Dietitians' lack of proficiency in Sesotho.

Most participants reported that they had experienced language barriers when consulting with Sesotho-speaking mothers. Seventeen participants reported that they were not fluent in Sesotho, while five participants reported that they were fluent in Sesotho and could communicate fluently with the mothers. Two of these participants spoke Sesotho as their home language, whereas the other three spoke Sepedi and Setswana, respectively. Sotho languages are closely linked to Sesotho, Sepedi, and Setswana. Subthemes related to these language barriers are described below.

5.2.1.1. Dietitians' inability to communicate in Sesotho

The nutrition care process (NCP), an internationally accepted framework in dietetics and nutrition, consists of four steps: nutrition assessment, nutrition intervention, diagnosis, and evaluation (Charney & Steiber, 2017). All four of these phases require effective communication

between dietitians and mothers. Dietitians' ability to fulfil their responsibilities following the NCP may be hampered by communication mishaps, particularly when working interculturally. Fourteen participants reported that they had experienced such mishaps that they attributed to not being fluent in Sesotho, the language mostly encountered in the Free State province. The negative impact of dietitians' lack of Sesotho proficiency on nutrition outcomes is discussed below.

5.2.1.2. The negative impact of dietitians' lack of Sesotho proficiency on nutrition outcomes

When individuals whose cultural origins and perspectives diverge enough to affect their interactions, the contact is referred to as intercultural communication (Jackson, 2019). Health communication, which refers to the exchange of information between individuals (Sagi et al., 2021), is heavily reliant on language. Language plays an important role in health interventions because it influences behaviour change and improves patient outcomes (de Moissac & Bowen, 2019; Hussey, 2012).

A few study participants also stated that they believed their inability to speak Sesotho prevented them from offering the best dietary service and advice. Communicating with them proved difficult due to language barriers. According to Levin (2014) and Mohamed et al. (2019), language plays a crucial role in cross-cultural communication and is essential to comprehending cultural nuances and customs (Jackson, 2019; Mohamed et al., 2019). Appropriate intercultural communication during nutrition consultations may result in better outcomes, with mothers understanding the intended health message.

"… So sometimes it really feels like we are not helping the patients in a way that we should because we are not speaking their language. Sometimes we feel, you know, that we are not able to do our jobs properly." (P9)

Because language barriers between HCPs and patients have been shown to reduce the effectiveness of health interventions, one could argue that dietitians' inability to communicate in Sesotho (as reported by P9 above) may negatively impact the NCP, thereby compromising the

efficacy of intercultural communication (de Moissac & Bowen, 2019; WHO, 2023). Increased patient-HCP dissatisfaction is possible, risking patient safety and healthcare quality (Al Shamsi et al., 2020).

In this current study, language barriers were found to negatively impact the time taken for patient consultations. Participants reported that dealing with language barriers lengthened nutrition consultations and limited the number of patients who could be seen in a single day. This, in turn, increases patient waiting times and puts additional strain on South Africa's already overburdened healthcare system. According to Maphumulo and Bhengu (2018), delays in healthcare delivery have negative effect on the quality of healthcare services in South Africa. Despite significant progress made since 1914 to address the health disparities created by the Apartheid regime, many South African patients continue to receive healthcare services that are subpar (Maphumulo & Bhengu, 2018).

Participants felt less time was available for patient-centred practices such as in-depth nutrition assessments. The difficulty increased when participants were required to perform nutrition assessments in order to determine the underlying cause of the patient's disease state. This perspective is corroborated by research conducted by a qualitative study conducted in the Netherlands on dietitians working with migrant (foreign) patients, where dietitians also reported having trouble getting health-related information from patients, like dietary and lifestyle histories (Jager et al. 2020). Dietitians in the study found it challenging to tailor nutrition treatment if they failed to understand the root of the nutrition problem, and this subsequently led to ineffective nutrition interventions (Jager et al. 2020).

Participants in the Netherlands study also reported that language barriers with ethnic migrant (foreign) patients led to dietary counselling sessions that were less effective. Moreover, several dietitians also reported that dietary compliance was low in those patients whose language differed from the dietitians and that it was difficult to explain the relationship between diseases in the presence of language barriers, for example, the relationship between diabetes and diet (Jager et al., 2020).

In the current study, some participants surprisingly expressed their dissatisfaction with dietitians who spoke Afrikaans or English to Sesotho-speaking mothers. Three of these participants spoke

Sesotho, while the other three spoke Afrikaans. According to these participants, it seemed that their colleagues were unmotivated to learn new languages. This was perceived as true for both White dietitians who were hesitant to learn Sesotho as well as Black dietitians who were hesitant to learn Afrikaans.

"If 14 or 15 or 20 years down the line, you still do not know how to communicate in a particular language with your patients. Who you have been seeing almost every day of your lives, so I don't think a lot of dietitians are willing to learn." (P10)

According to these participants, dietitians ought to work more to become fluent in their patients' languages, especially if they have spent several years working with the same patient population in the same location. HCPs are mandated by the WHO to guarantee that patient preferences, requirements, and values are taken into consideration when tailoring healthcare interventions. Strengthening the standard and safety of healthcare services across all health professionals depends on this requirement (WHO, 2023). In the presence of multicultural communication, this mandate becomes difficult to attain.

According to the participants in this study, some dietitians felt "entitled" to speak to Sesotho-speaking mothers in English or Afrikaans. The participants expressed their disapproval, believing that dietitians should have made greater effort to learn Sesotho because they were now in the "patients' territory". According to Jager et al. (2020), dietitians are more likely to receive a positive response from patients if they display a willingness to learn the language of their patients. Some participants disagreed with the preceding viewpoint. Rather than relying on the dietitians to make the bulk of the effort to understand Sesotho, these participants stated that mothers must also make the effort to learn English. This statement, however, contradicts the South African Patients' Rights Charter, which states that "Every patient has a right to health information in their language of choice". On the other hand, participants encountered mothers who could understand English. These mothers, however, were reported by the participants to be uneasy about being consulted in English.

Language barriers exist not only between White HCPs and Black patients but also between Black HCPs who speak a different indigenous language than the locals. Multilingualism is common

among Black South Africans. Sesotho, Sepedi, and Setswana are closely related to the Sotho languages and form part of the Sotho-Makua-Venda languages (Alexander, 2018). Four participants in this study spoke Sepedi, and they all expressed difficulty communicating with Sesotho-speaking mothers. One participant who spoke both Sepedi and Setswana expressed difficulty understanding the different dialects due to the depth of indigenous languages. This demonstrates that though the Sotho languages are related, it does not imply that if a person speaks one, they easily understand them all.

5.2.1.3. Factors affecting mothers' proficiency in English or Afrikaans

Based on the responses of a few participants, it appears that most mothers who spoke Sesotho could also converse in either Afrikaans or English. Although it was not always done well, this assisted in bridging the language barrier. Participants felt that Sesotho-speaking mothers' proficiency in English or Afrikaans, was dependant on their age, access to education, access to media and mothers' geographical location, i.e., living in urban vs rural areas. This might be a legacy of the effects of Apartheid on the South African languages.

The Bantu Homelands Citizen Act, passed in 1970, was passed with the intent of dividing Black Africans. As a result, distinct homelands for every indigenous community were established according to ethnicity. This was done to prevent Black Africans from becoming more linguistically bonded with one another, which would have otherwise occurred (Kamwangamalu, 2004; Mbiza, 2018).

According to this study's participants, most young mothers born in the early 1990s can speak English, while older mothers born prior to 1994 are often able to speak Afrikaans. Older mothers' ability to speak and understand Afrikaans may stem from the Bantu Education Act of 1953, which forced black Africans to receive education in Afrikaans (Mbiza, 2018). Additionally, Black Africans were placed in residential areas without access to high-quality education (SAHO, 2023). As a result, they would not have been able to acquire language skills beyond their mother tongue. These racial injustices experienced by Black Africans in the past may have contributed to some mothers being illiterate (SAHO, 2023).

"Most of the younger people can speak English, the older people are more Afrikaans that I've seen. So, let's say it's a granny, the chance that she'll understand Afrikaans is bigger than that she will understand English." (P2)

In contrast to the systemic factors mentioned above, one participant saw emotional stress as a barrier to effective health communication. This perspective backs up what patients reported in a previous multiple-method study conducted in four Canadian provinces where language barriers in healthcare were a challenge (de Moissac & Bowen, 2019). Several patients in the earlier study reported experiencing additional stress as a result of their inability to describe their disease and treatment in English. Furthermore, patients also expressed how language barriers exacerbated their anxiety. According to de Moissac and Bowen (2019), patients were discouraged from seeking medical attention because they were afraid of encountering language barriers. Patients lacked trust in healthcare interactions where language barriers existed. They emphasised how the emotional impact of language barriers affects them as they believe they receive inappropriate healthcare due to poor HCP-patient communication (de Moissac & Bowen, 2019).

5.2.1.4. Sesotho-speaking mothers' resistance to receiving healthcare services in English

Many participants expressed that some mothers resisted receiving health communication in English.

"Sometimes I know a mother can understand English but the moment she hears that I cannot speak her language then it's just like she just closes off. Yes, they are resistant and just because I cannot speak their language, they just refuse to just meet me halfway (laughs)…." (P9)

A redeeming factor that many dietitians recognise is the demeanour and attitude shown toward the mother when there are communication difficulties. Ramesh et al. (2019) shared similar sentiments and reiterated that non-verbal communication cues are more important than verbal communication. This was because nonverbal education sets the tone in the consultation way before the engagement of verbal communication occurs. Body language, facial expressions and the dietitian's attitude towards the patients determine the level of trust and confidence that the patient will form towards the dietitian (Ramesh et al., 2019).

Dietitians' efforts to be empathetic and understanding toward mothers in this study thereby encouraged a positive response and increased engagement. As a consequence, it improved the dialogue between the mother and dietitian during the nutrition consultation. Similarly, nutrition consultations frequently proved to be poor if dietitians displayed an attitude of entitlement when speaking Afrikaans or English. Mothers were more understanding of the language barrier. However, if dietitians behaved in an accommodating manner and tried to meet the mother halfway.

Similar findings were obtained by Jager et al. (2020) in their research in the Netherlands. Dietitians who participated in the study stated that patients' feelings of insecurity stemming from their inability to communicate in the dietitian's language could potentially cause this perceived reluctance. Thus, common ground may be established if the dietitian informs the patient that they, too, do not speak the same language. This reduced the patient's anxiety and improved communication between the dietitian and the patient.

Moreover, it was reported by dietitians that patients appreciated it when the dietitians showed interest and curiosity in getting to know them and learning about their language and culture (Jager et al., 2020). Both the present study and the study by Jager et al. (2020) demonstrated that patients frequently feel insecure when there are language barriers present and that nutrition consultations were enhanced when dietitians acknowledged that they, too, faced such barriers. This idea also reinforces the synergistic relationship between linguistic proficiency and cultural competency.

It is possible that some Black Africans still harbour animosity toward the Apartheid system based on the mothers' perceived resistance to receiving health communication in English and Afrikaans. Indeed, indigenous South African languages have received equal parity to English and Afrikaans. Since some mothers are exhibiting resistance, it is reasonable to assume that this is because they do not want to be addressed in languages that still carry a great deal of grief and injustice for them. The Soweto Youth protests in 1976 are well documented in South African history and demonstrate how resistance to Afrikaans has led to resentment and discord (Mbiza, 2018). This perceived resistance was also supported by some participants who reported that mothers have a right to receive healthcare in the language of their choice. As a result, it appears completely

reasonable for mothers to expect to receive healthcare in Sesotho or the language of choice. Moreover, it is cosigned by the South African constitution.

5.2.1.5. Language barriers due to differences in Spoken Language

Language and culture are inextricably linked, and as such, language is regarded as "a symbol, a weapon, and the very medium through which specific cultural identification processes are expressed". Language allows specific cultural and traditional ideas to be passed down from generation to generation (Rudwick, 2008). The evolution of indigenous languages in South Africa has resulted in words unique to the country and, more specifically, words uniquely used in South African townships. These words frequently confuse those who do not live in townships, as illustrated below and often differ from what is said. A few participants stated that there are misunderstandings between mothers and dietitians due to differences in spoken language, which indicated to participants that all of these words did not exist in Sesotho.

"So, they have different brand names linked to different things. And I think it's because those words don't exist in the Sotho language so they will make up words. And you will find that the newest Sotho words are very English related. Ja, I don't think that they have the words in the Sotho language, so they make a common word". (P21)

According to the researcher, these reported differences could be attributed to these participants' lack of cultural competency. Though these words are not entirely indigenous, many have become accepted as South African slang or 'kasi lingo' (The SA Taal Dictionary, 2023). These findings are evidence of the need for cultural competency as a critical component of language learning. Dietitians and other HCPs should be aware of and effectively engage with differing cultural groups (Mohamed et al., 2019)to achieve the required health outcomes. It is common for dietitians to find it more challenging to establish effective communication with patients from different cultural and linguistic groups (Jager et al., 2020). Therefore, it is reasonable to assume that dietitians would be better aware and knowledgeable about the differences in spoken language if they improved their cultural competency. As a result, there may be less chance of miscommunication between them and mothers during nutrition consultations.

5.2.1.6. Language barriers resulting from the language diversity in South Africa

South Africa has the highest immigrant population on the African continent, with 5% being immigrants/foreigners (Moyo, 2021). This percentage could be higher, given the number of undocumented immigrants in the country (Moyo, 2021).South African immigrants come from all over the African continent, with a sizable portion coming from North America, Europe and Asia (Moyo, 2021; Squires, 2018). In addition to global migration, many South African citizens migrate across provinces, which results in increased language diversity within an area. Therefore, it would make sense that participants experienced language barriers in other South African languages (i.e., Xhosa, Shangaan and Zulu) not commonly spoken in the Free State Province and languages not indigenous to South Africa (Mandarin and Shona).

It was noteworthy that the participants' location influenced the language barriers encountered in this study. For participants working in the Lejweleputswa District Municipality, mothers were predominantly Sesotho speakers, but some mothers spoke Shangaan, IsiXhosa, Shona, and Xitsonga. Participants in Bethlehem and Ladybrand (Thabo Mofutsanyana District Municipality) encountered Sesotho- speaking patients. The district is largely rural with limited exposure to other languages (National Government, 2023) thus the reason for the patients' language being Sesotho. Xhariep District Municipality is the largest district in the Free State, and three national main roads pass through this area. Participants from the Xhariep Municipality consulted patients who spoke Afrikaans and IsiXhosa. This could be attributed to the fact that the Northern Cape and Eastern Cape borders the district. Afrikaans is one of the dominant languages spoken in the Northern Cape, and IsiXhosa is dominant in the Eastern Cape (Stats SA, 2022).

5.2.1.7. The role of privilege and power in language relations

McIntosh (1988), as cited by Dudzinski (2018), defines White privilege as "unearned power conferred systematically". Dudzinski (2018) further states, "Whites are given the benefit of the doubt. Our motives or reasons for being somewhere do not bear undue scrutiny from strangers or law enforcement." Similarly, there has been ample evidence to demonstrate that White people have historically received more beneficial treatment over Black people particularly in healthcare (Hobbs, 2018; SAHO, 2014). Dudzinski (2020) reiterated that HCPs should work

together to reduce health disparities during consultations. In South Africa, this privilege owes its existence to the history of Apartheid, where white people were seen as authoritative and powerful while black people were regarded as powerless and insignificant.

White privilege manifested in different ways in this study. On the one hand, participants believed dietitians of Black African ancestry tend to receive more backlash or resistance from mothers for not being able to speak Sesotho. The same cannot be said for White dietitians; the effect seemed to be more pronounced amongst Black dietitians in this study than White dietitians.

Typical to the definition of White privilege, Black dietitians in this study felt their White counterparts received favourable treatment from patients with regard to language barriers. One may argue that perhaps this "Apartheid psyche" still exists for some patients, who subsequently give White dietitians a "hall pass" for not being able to speak Sesotho or any other indigenous African language. In the meantime, Black African dietitians are criticised under the same conditions. This concept was expanded upon as participants elaborated that it was because Sesotho-speaking patients assumed that any black dietitian, in this case, Sesotho, could automatically speak the local indigenous language, regardless of the dietitian's home language. Participants further expressed that Black African mothers are taken aback when Black African dietitians address them in English. It was worth noting that participants who reported this were of Black and White ancestry.

A few individuals voiced their displeasure with certain mothers' limited English proficiency. English was viewed as a universal language, and it was expected that patients would be able to communicate in English. Some participants believe that English is perceived as a viable compromise for Afrikaans-speaking dietitians and Sesotho mothers in particular. The researcher believes that this is yet another example of White privilege, as a White Afrikaans-speaking dietitian particularly expressed this. According to research, White counterparts who exhibit White privilege are frequently unaware of the inequalities that plague their Black counterparts (Hobbs, 2018). Perhaps White Afrikaans participants had the advantage of learning both Afrikaans and English in school, whereas some Black mothers could only learn Sesotho.

Certain participants communicated that some mothers felt embarrassed or ashamed due to their lack of proficiency in English. This idea is consistent with data demonstrating that English was

considered the language of intelligence, knowledgeable and powerful communities (Kusi-Appiah, 2022; INTRAC, 2018).). Given that indigenous languages were consistently regarded as inferior and insufficient, Black African populations left wounded by Apartheid may have felt inferior for their lack of understanding of English (Kamwangamalu, 2004; Kaplan, 2008; Mbiza, 2018).

The perception that dietitians use a more difficult form of English, or "British English", led to mothers requesting an interpreter for dietary consultations, only to show evidence of a knowledge of English once the interview or counselling commences. Participants reported this experience when consulting patients in the presence of an interpreter. This finding demonstrated the importance of avoiding complex medical terms or scientific jargon, as it hinders patients' understanding of the proposed treatment (Ramesh et al, 2019). The power dynamics between HCPs and their patients, compounded by language barriers, may also be related to this experience. Language-related power dynamics can potentially worsen the divide between mothers and dietitians, adversely affecting the NCP and diminishing the quality of nutrition interventions. Meuter et al. (2015) propose that HCPs already have some influence over patients. Therefore, in the event of language barriers, power dynamics are altered to favour the HCP (Meuter et al., 2015).

Interestingly, some of the White Afrikaans speaking participants believed that speaking Sesotho or Zulu meant one could communicate in all the South African indigenous languages. This belief is inaccurate considering the diversity of the languages spoken in South Africa, as detailed in Chapter two. It is also important for dietitians to choose the right person to interpret to address the language proficiency of their patients.

5.3. Theme 2: Reported difficulty in explaining medical terms/concepts in Sesotho

The second theme explores the medical terminology or concepts associated with the first 1000 days of life that participants found difficult to communicate to mothers in Sesotho. The theme will be discussed in two sub-themes.

5.3.1. Reasons for the difficulty in explaining the identified medical terms/concepts

Many participants reported difficulty explaining nutrition and medical terms/concepts related to the first 1000 days of life in Sesotho. Likewise, most participants reported that it is often difficult to find the exact Sesotho word to explain medical terms and concepts. Some participants said that they did not know what the Sesotho words were. Some felt that some scientific or medical terms/concepts simply did not exist in Sesotho. The Sesotho-speaking participants confirmed this perception. Participants also reported difficulty describing words, which may affect the mother's understanding of the discussed nutrition concepts.

According to numerous studies (Khumalo & Nkomo, 2022; Moodley & Dlamini, 2021), English and Afrikaans have received parity over indigenous South African languages for decades. According to Wildsmith-Cromarty (2019), indigenous South African languages have not been developed scientifically to the same extent as English and Afrikaans. This lack of development has surpassed a larger scope that includes societal and educational levels Mbiza (2018). The researcher in this present study suggests that this may be why many dietitians often struggle to identify the scientific and medical terms in African indigenous languages at the exclusion of English and Afrikaans. The NCP may be negatively impacted if the nutrition information offered to the mother is unclear.

A few participants believed that some mothers understood medical and nutrition concepts better in English. Furthermore, participants highlighted that English words are frequently "borrowed" to create “a Sesotho language” that the mothers can understand. Some of this study's participants believed that Sesotho in the Free State is losing its indigenous roots due to the rise in the dominance of English. These participants stated that some Sesotho- speaking patients do not understand the deep indigenous Sesotho themselves. This finding reiterates the need intellectualise indigenous African languages and building indigenous medical terminology is part of the process. The researcher contends that patients and dietitians might choose not to speak English as much if indigenous languages were developed to a greater extent.

On the other hand, several participants stated that they did not really experience difficulty explaining medical terms or concepts. Instead of using scientific jargon, participants expressed that they used practical methods to explain medical terms/concepts. For example, a participant

used a model breast to show the mother how to breastfeed appropriately. Notably, six of the nine participants who expressed no difficulty in explaining Sesotho medical terms or concepts were Afrikaans speaking. It is proposed that most of these participants had multiple years of working experience in the dietetics field and have, therefore, developed strategies to overcome these language barriers.

5.3.2. Identified medical terms and concepts that were difficult to explain in Sesotho

Some participants reported that difficulties arose when they needed to explain complex scientific concepts in Sesotho related to the first 1000 days of life because their language proficiency was very limited. A few participants said they were unfamiliar with the medical vocabulary in Sesotho. Many of the participants believed that some terms and concepts from science and medicine don't exist in Sesotho. Collectively, participants identified 28 terms and concepts that they had trouble explaining to mothers (refer to Table 4.3.). According to the researcher in this current study, some participants believed that certain terms or concepts did not exist in Sesotho. It is hypothesised that some of the terms and concepts listed in Table 4.3 may exist in Sesotho but are simply unknown to participants. Since establishing the validity of the terminology and concepts found was not one of the current study's goals, this theme serves as a rationale for the assessment and development of a Sesotho nutrition dictionary or glossary.

5.4. Theme 3: Strategies and recommendations to overcome the language barriers

This theme examines the several approaches and suggestions that participants made to enhance health communication during nutrition consultations.

5.4.1. The use of interpreters

The International Association of Medical Interpreters defines interpretation as (Habib et al., 2023; IMIA, 2023), "conversion of the message occurred in the source language into an equivalent message in the target language so that the intended recipient of the message response to events as if he or she had heard it in the original." The use of interpreters was identified as a useful tool in dealing with language barriers. Most of the participants reported

that they make use of interpreters to overcome language barriers. None of the facilities included in this study had trained appointed interpreters, therefore, participants' colleagues served as Sesotho interpreters. The use of untrained medical interpreters was also found to be problematic as discussed in section 2.10. Participants reported that in their experience, the following staff members (colleagues) served as non-dedicated interpreters: professional nurses, nursing assistants, allied health staff, medical doctors, administration clerks, community health care workers, housekeeping staff, and social workers.

5.4.1.1. The use of non-appointed, untrained interpreters

Some participants had concerns regarding the use of non-dedicated interpreters. They stated that requesting other staff members to interpret was seen as interfering with their actual job responsibilities. Conversely, some participants believed that requesting other staff members to interpret is akin to expecting others to carry out the dietitians' duties. In this current study, it was a common occurrence that non-dedicated interpreters were often unavailable to assist. The workloads of these non-dedicated interpreters frequently prevented them from dedicating enough time to patient education, affecting the NCP and nutritional information given to mothers.

The use of non-dedicated interpreters such as cleaners, nurses and social workers further burdens the delivery of quality healthcare services (reference). The additional pressure of being required to interpret adds to the already heavy workloads that HCPs and other staff members frequently have due to their own professional obligations.

The practice of interpreting is complex. It does not simply involve translating words and phrases from one language to another (Kilian et al., 2021). Terminological problems and interpreters still limit Indigenous South African language and often find it difficult to communicate scientific words/phrases (Madadzhe, 2019) in Sesotho, as demonstrated in theme two. This difficulty is further intensified by the fact that non-dedicated interpreters are not trained in contextual interpretation and, therefore, already lack the skills to carry out the communication process effectively. Data has shown that dedicated and trained interpreters improve healthcare quality health outcomes and increase patient satisfaction (Habib et al., 2023).

Participants also emphasised that dietitians should be aware that other staff members are not required to act as interpreters. Dietitians should not feel entitled to assistance and should control their attitudes accordingly. Some of the participants suggested that dietitians keep their ties with their colleagues who acted as interpreters' cordial. This raised the possibility that staff members would consent to help the dietitians with interpretation. In general, it was considered advantageous for the dietitians to ask for help with a kind demeanour and without feeling entitled.

Sesotho-speaking mothers are occasionally asked to bring family members who can communicate in Afrikaans or English to their dietetic appointments. Kasten (2020) warns that there are numerous dangers associated with using inexperienced family members or friends to interpret medical information. Patient privacy and confidentiality are highly susceptible to violations, particularly when discussing sensitive information. In the distribution of medical information, family members may also have their own agendas, withhold information, or communicate it incorrectly. Intricate family dynamics could potentially complicate interpretation (Kasten et al., 2020). Using family and friends is also not the best option because it violates the Patients Right Charter's protection of patients' privacy rights.

5.4.1.2. Strategies used in the absence of interpreters for indigenous languages

In the event that interpreters were not available, participants approached the situation in various ways.

i. Mothers would be rescheduled to another day when an interpreter would be available. This implies that nutritional care was postponed, which can be harmful to mothers and their children. Maternal and child health is critical, especially during the first 1000 days of life (Garg et al., 2020; WHO, 2019). Therefore, the absence of non-dedicated interpreters impacts access to health in this critical period. Maphumulo and Bengu (2018) reported instances where patients have experienced medical complications as a result of being turned away from a public facility or not being able to receive timely healthcare services. Rescheduling mothers' appointments, an approach used by some participants is somewhat problematic as it is unclear who would be responsible for rescheduling the

mothers to a different date. Beyond health outcome implications, there are financial ramifications as well, particularly for mothers already struggling financially.

ii. Alternatively, mothers were given an educational pamphlet in Sesotho and referred to the nearest health institution where an interpreter or Sesotho-speaking dietitian would be available. This practice also has financial and compliance implications for mothers as they would have to travel to another institution to seek help. This does not align with patient-centred care(Maphumulo & Bengu, 2018). This viewpoint is supported by Jager et al. (2020), who reported that patients often lose motivation when consultations are deferred to other institutions, which often leads to poor compliance and patients defaulting to treatment. The public's confidence in South Africa's healthcare system has also decreased due to the decline in the quality of healthcare services. Therefore, delaying mothers' access to nutrition information by referring them to other institutions may further compromise health outcomes.

iii. In the absence of interpreters, dietary prescriptions were often given in English, hoping that mothers would have an English- speaking member at home to explain its contents. This practice compromises the NCP and the accompanying likelihood of the mothers adhering to nutritional treatment. Furthermore, this practice puts the responsibility of the healthcare on the patient instead of the HCP assuming that responsibility (De Moissac & Bowen, 2019).

The use of interpreters in other indigenous languages was noteworthy considering that participants who spoke Sesotho and Sepedi frequently used Afrikaans interpreters for Afrikaans-speaking patients. Some participants said that to help participants who had mothers who spoke isiXhosa, isiXhosa interpreters were occasionally also used. This emphasises how language barriers generally cause communication problems. This study relates to a broader view that language barriers exist in various indigenous languages, not just Sesotho. There is also an extensive body of international research that documents the presence of language barriers in multiple other languages(de Moissac & Bowen, 2019; Habib et al., 2023; Jager et al, 2020). The consensus is that there is a great need for trained interpreters who speak multiple official South

African languages across the healthcare environment (de Moissac & Bowen, 2019; Habib et al., 2023).

5.4.1.3. Reported disadvantages of using interpreters

The majority of participants discussed the drawbacks of using interpreters despite the fact that doing so helped them overcome language barriers. According to participants' accounts, there were certain difficulties with using untrained, non-dedicated interpreters with non-medical experience, such as administration clerks or cleaners. These difficulties included:

i) Breaching patient confidentiality and misinterpreting nutritional or medical information. These difficulties were heightened when sensitive matters, such as the nature of the patient's diagnosis and socioeconomic status, were discussed. This notion also conflicts with the Patients' Righter Charter, which endorses patient confidentiality. It also echoes the importance of obtaining informed consent before disclosing health information to another individual (Habib et al., 2023; Al Shamsi et al., 2020; Kasten et al., 2020; HPCSA, 2008). Moreover, using non-medical interpreters was considered unethical as sensitive medical information is shared about the patient (Al Shamsi et al., 2020).

ii) The possibility of nutrition information getting lost through an interpreter was also mentioned. Most participants with limited proficiency in Sesotho expressed worry about not understanding what the interpreter was saying. They were, therefore, unsure of whether the nutrition information being delivered by the interpreter was accurate and presented in the original manner. This concern is supported by other authors, who have also noted that because HCPs do not understand the particular language being interpreted, they may be unaware of whether the right information is being communicated (Coetzee et al., 2015; Jager et al., 2020).

iii) Similarly, participants also expressed that they did not know whether the patient understood the health information that was communicated. This finding was also corroborated by Jager et al. (2020) in a prior similar research study. iv) Conversely, some of the participants also reported that interpreters tended to add their own advice, or they deviated from what the dietitian wanted to convey. A possible explanation is that interpreters, especially medical staff, might feel that it is necessary for them to add their own expertise because they might have knowledge and/or

experiences of the disease state in question (Kilian et al., 2021).

Empathy is regarded as an essential component of effective healthcare interventions. The patient's emotional state needs to be recognised and considered. Empathy has been shown to impact health outcomes and patient satisfaction positively (Derksen et al., 2013; Theys et al., 2022). v) Participants expressed that the empathy shown by the dietitian was lost through the use of interpreters. The dietitian might communicate in an empathetic manner, which is not mirrored by the non-dedicated interpreter. Researchers propose that nonverbal cues such as facial expressions and body language assist patients in recognising the HCP's level of empathy in the presence of interpreters (Theys et al., 2022; Ramesh et al., 2019).

5.4.1.4. General recommendations for dietitians regarding the use of interpreters

According to participants, approaching mothers with a positive disposition also helps. When dietitians disclosed that they could not speak Sesotho and hence needed the assistance of an interpreter, mothers were seen to be more understanding of the language barrier. Maintaining patient focus and attempting to learn from the patient were also considered to be crucial. Mothers felt more at ease when dietitians tried to accommodate them while maintaining a positive disposition.

5.4.1.5. Recommended government interventions concerning interpreters

Many of the participants recommended that the Department of Health make more efforts to appoint dedicated interpreters. It is concerning that despite the nation's stated dedication to the intellectualisation of indigenous South African languages, the application of workable solutions is still hindered. According to the Patients' Rights Charter (HPCSA, 2008), patients are entitled to obtain healthcare in the language of their choosing. Nevertheless, because the DOH has not yet assigned specialised interpreters to institutions, HCPs must ask their colleagues for assistance when translating.

Participants reported that dedicated interpreters would also need to be specially trained in the various health disciplines to avoid misunderstandings of health information. Moreover, some participants recommended that interpreters need to be specially trained to meet the demands and stressors that come with the healthcare environment, such as medical trauma and death.

A possible reason for this appointment gap regarding dedicated interpreters within the DOH could be financial constraints. It is a fact that the healthcare system is inundated with a high burden of disease, which was further exacerbated by the COVID-19 pandemic (Kilian et al., 2021; Victora et al., 2021). A possible reason for the lack of dedicated interpreters could be that the DOH has not realised the true urgency that language barriers pose. Perhaps because HCPs do not communicate this barrier well enough to highlight the urgency. Kilian et al. (2021) have also suggested that the lack of urgency is because HCPs have developed strategies to work around the identified language barriers.

5.4.2. Codeswitching and Language Learning

A frequent linguistic strategy is codeswitching, which enables HCPs to provide consultations without needing interpreters (Blackwell et al., 2021; Kusi-Appiah, 2022). Many participants in this study used codeswitching to overcome language barriers. On the other hand, language learning in this present study was considered to be the participants' initiative.

5.4.2.1. The advantages of codeswitching

Codeswitching was perceived as having aided in bridging the language barrier. This was due to the mother's better comprehension of nutrition terms and concepts as a result of employing Sesotho vocabulary. The dietitian's attempt to communicate with the mothers in Sesotho was perceived to be positively received by mothers. This, in turn, improved the implementation of the NCP in terms of nutrition assessment and intervention.

Through codeswitching, mothers are likely to feel that their language and culture were considered important to the HCP and, therefore, improved relations between the parties. Jager et al. (2019) support the above-mentioned finding, as dietitians reported in their study that patients tend to feel insecure due to language barriers. Subsequently, when the dietitians at least tried to speak the patients' language, it alleviated the insecurity, and the patients felt a sense of appreciation towards the HCP.

5.4.2.1.1. The disadvantages of codeswitching

The reported drawback of codeswitching was that it increased the risk of misunderstandings and

misinterpretation of nutrition information between the dietitian and the mother.

"… sometimes if I speak Sotho to them, I pronounce it so badly they don't understand me." (P5)

Participants also mentioned that the mothers often became confused through codeswitching. Additionally, the mother seemed disappointed by the language barrier during the consultation because codeswitching gave the impression that the dietitian could speak Sesotho when, in fact, they could not. One participant reported that the accent used by the dietitian during codeswitching is important. This was because speaking Sesotho in an English or Afrikaans accent creates confusion of the spoken language.

Nonetheless, accent usage was seen as complicated because patients could construe it as offensive. There have been reports where mothers felt as though the dietitian was mocking them, while others had the impression that the dietitian was speaking down to them. The idea that HCPs should carefully assess their usage of codeswitching is confirmed by Wood (2019). It is important to pay close attention to word choice, voice tone, and body language to avoid coming across as condescending or disrespectful to the patient.

A participant reported that sometimes, she gets so used to communicating in a simple language that it might come off as offensive to a Sesotho mother, who can speak some English. Using simpler language could likely give the impression that the mothers' intelligence is being undermined, according to the participants. In fact, the researcher in this current study suggests that the mother may even think that the dietitian is speaking to them in a childlike way. Therefore, codeswitching requires dietitians to ascertain a certain degree of awareness and monitoring of the mother's reaction to this linguistic technique (Wood, 2019).

5.4.2.2. Language Learning

Participants recommended that dietitians also need to make concerted efforts towards learning Sesotho. It could be beneficial if dietitians at least learned the basics of nutrition in Sesotho.

5.4.2.2.1. Perceived barriers towards language learning

However, participants also mentioned how difficult it is to learn Sesotho. This resulted from the perception that it was an after-work learning activity that needed work. Dietitians reported

having personal duties to attend to after work, which was perceived as a hindrance to their learning. Some participants, however, disagreed with the aforementioned point of view. Rather, they reported that they were already under pressure and overworked due to the DOH's heavy workload and understaffing. Employee demotivation brought on by inadequate salary and incentives contributed to this. Therefore, in light of these ongoing issues with the healthcare system, expecting HCPs to acquire a new language like Sesotho was thought to be unjust. A few participants also emphasised that if learning a new language was not a prerequisite for employment, it was also seen as unfair and unreasonable to request dietitians or any other HCPs to do so. However the researcher argues that dietitians have a responsibility to provide the best possible care to their patients, considering the risks that language barriers poses to the patient and their health outcome.

5.4.3. Sesotho educational material and visual aids

The use of visual aids and educational material in Sesotho came up frequently as a recommendation to bridge the language barriers. Participants reported that mothers understood nutrition education better when they could see what was being communicated by the dietitian.

Some of the participants made use of educational material, namely nutritional pamphlets, which were translated through the assistance of their Sesotho-speaking colleagues. They reported that it helped to give mothers nutritional pamphlets in Sesotho, especially if an interpreter was not immediately available. Participants depended on their Sesotho-speaking colleagues to translate nutritional pamphlets. It is considerable that the colleagues were not trained nutrition experts, nor were they trained in the skill of translation. Therefore, the quality and accuracy of the nutritional pamphlets are also questioned. This also suggests that participants would not be able to determine if the pamphlets were correctly translated as they could not read Sesotho themselves.

Some concerns were raised regarding using nutritional educational material such as pamphlets. According to a participant, it is still crucial to provide verbal nutrition education because it is impossible to ensure that mothers will read the nutritional pamphlet at home. Dietitians were also unable to confirm whether mothers had correctly understood the nutritional information in

the pamphlet. This implied that the mothers' willingness to read the pamphlet or their literacy level may be requirements for the usage of nutritional pamphlets.

Many of the participants used visual aids because they believed that patients understood visuals better. Some used visual aids because they encountered difficulties translating English nutritional pamphlets into Sesotho. Jager et al. (2019) reported some drawbacks to visual aids, stating that some dietitians feel that visuals might come across as insulting to patients as they may seem childish to adult patients.

It was noteworthy that participants all developed their own visual aids and educational material. They did not use standardised material from the NDOH as they had not received any. Therefore, many of the participants recommended that the DOH should assist in developing standardised nutrition education pamphlets in Sesotho as well as other indigenous South African languages.

5.4.4. Review of Human Resource policies in institutions that employ dietitians.

Participants suggested that the DOH reconsider their hiring practices by making language a requirement when appointing HCPs like dietitian in public service. This viewpoint is somewhat problematic due to the historical landscape of South Africa. Citizens were previously forced to live in specific provinces according to their cultural heritage. Hence the country is now faced with the phenomenon of specific languages being dominant in each province, as in the case of Sesotho in the Free State. If the dietitian were to be employed in another province, they would need to learn another language, which perhaps is not feasible.

There have been contradicting recommendations by other authors who feel that indigenous language proficiency should be a requirement for working in public service (PanSALB, 2011). Some participants' views aligned with this recommendation as they recommended that the DOH could assist in offering language courses in the local African languages. Many of the participants said that they would be interested in doing a language course if it were offered by the DOH.

When applying for a post in the DOH, applicants are required to fill in a Z83 form. The form assists government departments in identifying candidates to be interviewed. Since all applicants cannot be interviewed, they need to fill out the form, which requires personal information, academic qualifications and level of language fluency (Department of Employment and Labour, 2020).

Participants confirmed that the Z83 form enquire about language fluency. However, it was perceived that these questions were not considered and implemented during the hiring process. Participants reported that dietitians should be appointed in posts that can accommodate the language of the patient population.

A contrasting recommendation was that the DOH should also place permanent and community service dietitians in areas where they are able to speak the local language. It was added that if a language like Sesotho is not a requirement during the appointment process, then the DOH cannot expect dietitians to learn the language on their own accord. Some participants perceived that HR assumes that all Black people could automatically speak the indigenous languages native to the area, and as seen in the study's findings, this is not necessarily true.

Some participants suggested that the DOH also needs to consider that patients migrate from different provinces all over South Africa. Therefore, a predominantly Sesotho area also tends to have people living there that speak other South African indigenous languages. A participant mentioned that there are Venda and Shangaan speaking patients living in her area of work. The participant, therefore recommended that healthcare facilities should have healthcare workers appointed who can speak various languages. It was reiterated that it is a challenge that interpreters were not appointed in these instances. This phenomenon increased the language diversity within provinces, which contributed to increased language barriers.

5.4.5. Review of the Language Policy in schools

Many of the participants expressed that there is a great need for capacity building regarding language skills at Higher Education Institutions like schools. Participants stated that children learn and grasp learning new languages better than adults. Therefore, introducing language learning early will be beneficial. In the long term, it has the potential to eradicate language barriers in South Africa on a large scale. However, many South African schools still do not offer indigenous South African languages in their curriculum (Marivate, 2022; Swingler, 2022). Similarly, many of the participants reported that they did not have the option to take an indigenous African language at school. While some participants reported that they had Sesotho in school, it did not help them converse in Sesotho. Consequently, participants criticised the school system for

failing to teach indigenous South African languages to a point of adequate proficiency.

Several participants expressed that the basic school system is failing mothers. They felt that scholars should not be able to graduate high school without knowing how to speak English, as it is a universal language. This suggestion supports the idea that indigenous South African languages are still perceived as inferior to English. The perception that English is superior to indigenous languages is evidence of the effect of the Bantu Education Act, which has both contributed to this negative perception (Swingler, 2022).

5.4.5.1. Review of the Language Policy in universities

This study's participants perceived university language policies and language learning initiatives as limiting. Some universities offer language courses to students; however, these languages are usually the dominant language used in the province where the university is situated. Therefore, if a dietitian studies at the University of the Free State, they are more likely to learn Sesotho. It, for example, becomes a challenge when the same dietitian then finds employment in KwaZulu Natal, where the dominant language is Zulu. In addition, this approach could prove problematic as it can limit dietitians from working in other provinces, especially if the language differs from the language that they learnt at university. This notion is challenging as the researcher contends that it is unrealistic to expect that dietitians learn all the official indigenous languages. The researcher reiterates that the NDOH should also assist in offering language courses in their respective institutions to address the language gaps of their employees.

5.4.6. Other strategies and recommendations to overcome the language barriers

Participants discussed several approaches they took to navigate the language barriers. These tactics included searching for Sesotho terms and phrases on Google and using Google Translate. Some participants, however, used Sesotho language manuals and dictionaries. While others. Some participants stated they would ask a colleague who speaks Sesotho to translate or send a text over WhatsApp. Participants who could function without the assistance of interpreters and had a moderate level of fluency in Sesotho employed this tactic.

A dictionary containing words and phrases linked to Sesotho nutrition was another

recommendation made by participants. Such a dictionary should provide a breakdown of nutrition-related queries and responses in Sesotho. According to some of the participants, learning how to ask questions about nutrition in Sesotho might be beneficial; however, it is also necessary for dietitians to decipher replies communicated in Sesotho.

Another participant suggested that the DOH record nutritional education videos in all of the indigenous languages spoken in South Africa. Afterwards, these recordings can be played back when mothers are being consulted. Additionally, a participant mentioned that the DOH needs to enhance health promotion through targeted health messaging that portrays South Africa's indigenous languages.

5.5. Summary

In this chapter, the culminating findings were presented and interpreted by the researcher. Data were generated having asked the research question: What are the language barriers between dietitians and mothers of IYC during dietetic consultations related to the first 1000 days of life? The study setting was introduced at the beginning of the chapter with reference to the location and municipality of the research population. Subsequently, the identified themes and subthemes were discussed in triangulation with literature. Field notes made during the data collection process provided insight into the context of the interview sessions.

The researcher explored the three main themes and accompanying subthemes in detail. Language barriers and the impact thereof was described by the participants. Many reported experiencing language barriers, including, amongst others, dietitians lacking proficiency in Sesotho. Other issues included mothers lacking proficiency in English or Afrikaans and some Sesotho-speaking mothers' resistance to receiving healthcare services in English. The role of power and privilege in language was also highlighted. Furthermore, the dietitians reported difficulty in explaining nutrition concepts in Sesotho. Strategies were identified to overcome the language barriers, including interpreters, visual aids, codeswitching, language learning and nutritional education in Sesotho.

CHAPTER 6 CONCLUSION AND RECOMMENDATIONS

This chapter describes the conclusions drawn from the study on the language barriers that were reported during nutrition consultations related to the first 1000 days between dietitians and Sesotho speaking mothers.

6.1. Overview of the study

South Africa has a diverse mix of cultures and languages, and serving patients from linguistically diverse backgrounds is a concern for HCPs, including dietitians. When it comes to health interventions, language plays a crucial role in helping patients to modify their behaviour. in order improve health. Similarly, because intercultural communication must be considered, the phenomena of language barriers is further complicated by the intertwining of language and culture. Dietitians must possess a certain degree of linguistic and cultural competency in order to carry out the NCP efficiently and support initiatives aimed at eliminating the DBM in the first 1000 days of life.

It is crucial to acknowledge that healthcare services cannot be carried out without health communication. Health communication is rooted in language, and the two cannot function in isolation (Hussey, 2012). Language disparities in healthcare does impact the efforts made towards the eradication of the double burden of malnutrition and needs to be addressed accordingly and appropriately (Ramesh et al., 2019). In terms of healthcare, it is critical to strengthen the provision of health care services across the life cycle (WHO, 2019). Healthcare services such as nutrition education has been shown to be effective when it is communicated in the mothers' home language (Kajjura et al., 2019). Poor communication between mothers and dietitians diminishes patient outcomes and has a detrimental impact on the effectiveness of nutrition interventions. Language barriers have an impact on patient safety, healthcare quality, and the HCP-patient relationship's level of satisfaction (de Moissac & Bowen, 2019; Jager et al., 2020).

South Africa's constitution recognizes eleven official language namely Sepedi, Sesotho, Setswana, Seswati, Tshivenda, Tsonga, Afrikaans, English, Ndebele, Xhosa and Zulu. (Stats SA, 2022a). Under Apartheid rule, the country's main languages were English, and Afrikaans at the expense of

indigenous South African languages. The political history and landscape of South Africa has also contributed significantly to the current state of affairs. Since the dawn of democracy in 1994, the country has made efforts towards advancing previously marginalized indigenous languages. However, many researchers have argued that government has not made sufficient efforts to curb the negative effect of language barriers within the healthcare environment

6.2. Recommendations for implementation

The researcher makes the following recommendations for the National Department of Health (NDOH) and other policymakers, educational institutions, dietitians in practice, and researchers.

6.2.1. Language learning

Since language is not an official requirement for public service in South Africa, the researcher proposes that it should remain this way. The researcher argues that this practice might also perpetuate what the Apartheid regime tried to achieve through the implementation of the Bantu Homelands Act. It would mean dietitians would be limited to working in certain provinces based on their language proficiency. This practice is also likely to stunt the advancement and exposure to different African languages across provinces. The researcher recommends that the NDOH rather make efforts towards making language courses on indigenous South African languages accessible to all public servants. This might not solve the immediate problem of language barriers, but it will have lasting beneficial impact in the long term. The appointment of trained medical interpreters should be used as a solution in the interim.

Language barriers during nutrition consultations would be significantly reduced if dietitians learnt Sesotho. However, HCPs lack the provision of formal language learning and have poor confidence in learning a new language. Therefore, the development of language courses should carefully consider curriculum design and language tutorials (Mohamed et al., 2019). Van den Berg (2016) expressed a need for linguists to assist and guide the language learning process (van den Berg, 2016). It is recommended that the NDOH consult with linguists to develop language courses in Sesotho and other indigenous South African languages, that are tailored to meet the language needs of the target patient population of the healthcare institutions. Language courses can also

be integrated into the dietitians' working hours, negating the dietitians' stated time constraints for learning Sesotho.

6.2.2. Recommendations for the use of interpreters

Considering interpretation in medical contexts is a complicated process, there is an increased need to hire trained medical interpreters. Interpreters require a variety of abilities to adequately convey medical information between the patient and HCP. Medical interpreters must meet certain requirements to be proficient in interpretation as they must have knowledge of both languages and demonstrate cultural competence (Benjamin et al., 2016; Habib et al., 2023). In the South African healthcare system, trained medical interpreters are particularly helpful as they act as a cultural bridge between the patient and the HCP (Habib et al., 2023). Medical interpreters should be culturally competent and able to relate to the target patient population, given the significance of language and culture.

Unlike the legal system, the healthcare system does not have dedicated trained interpreters. Consequently, healthcare personnel are often tasked with interpreting despite them being untrained on interpretation. As discussed in Chapter two and five, the use of untrained interpreters presents many limitations. The researcher in this current study therefore recommends that the NDOH appoint trained medical interpreters to form part of the healthcare team. These interpreters should be trained on the language spoken by the dietitians and the mothers. Medical interpreters should also be trained on how to manage the stressors that come with the healthcare environment. Furthermore, medical interpreters should also be trained on the various terms and concepts that are relevant to the dietetics profession.

6.2.3. The development of standardized nutrition education material in indigenous South African languages

It was frequently mentioned by the study participants that they had to create their own nutrition teaching materials. Healthcare personnel were consulted for assistance in the translation of English nutritional information into Sesotho. This presented further difficulties because translation is a difficult process that entails more than just word translation. As a result, the researcher raised concerns regarding the reliability and validity of these translated nutrition

educational material.

It is therefore recommended that the NDOH develop standardized nutrition education material in Sesotho and all the other indigenous South African languages. This would also ensure that the nutrition information is valid and accurate. The NDOH must promote health messages such as breastfeeding on major media platforms. These platforms should include radio, television, social media and print media. The health messages must be communicated in Sesotho and indigenous South African languages, thereby also ensuring the promotion of health messages to mothers in their home language.

6.2.4. Recommendations for government and other policymakers

In a country with eleven official languages, it is integral to educate the public on all the South African languages. Considering that English and Afrikaans have received parity over other indigenous South African languages, it is recommended that the government focus on the latter. Some of the participants in the study displayed warped views and knowledge on indigenous South African languages. There is a call for the relevant government institutions to promote previously marginalized indigenous languages to spread awareness and increase knowledge. It is also proposed that government departments liaise to create digital platforms that aid language learning. These digital platforms can include mobile applications such as dictionaries and translation applications in Sesotho.

6.2.5. Recommendations for educational institutions

As discussed in chapter two, educational institutions such as schools and universities have made efforts towards advancing previously marginalized indigenous languages through the development of language policies. The researcher further recommends that educational institutions should strengthen their language learning courses. It is not sufficient to simply teach general terms and words in indigenous South African languages. It is proposed that language learning be taught in a manner that is adequate to equip students to use indigenous languages in a conversational manner. Integrating the learning of indigenous South African languages in the school curriculum would particularly empower English and Afrikaans speaking students.

It would not be realistic to expect that dietitians learn all official languages, considering that the country has eleven languages. It is therefore suggested that students at least acquire a decent comprehension of English in schools, to navigate language barriers in the working world. However, the researcher reiterates that the teaching of English in schools should not be done at the expense of deferring indigenous South African languages. The home language of the students should always be prioritized. The researcher is not advocating for the further advancement of English, but rather just acknowledging that having a relatively good grasp of English is beneficial. Nonetheless, the teaching of indigenous South African languages should still be promoted and prioritized in schools and universities. Universities have made strides towards advancing indigenous South African languages through the development of language policies (COPAL, 2022), and lexicon departments have been established at some institutions. However, universities must also make more concerted efforts towards teaching dietitians and other HCPs on how to appropriately manage language barriers in the healthcare setting. It is recommended that universities teach students skills on how to navigate language barriers and how to appropriately apply these strategies overcome language barriers such as codeswitching,

6.2.6. Recommendations for dietitians in practice

This research study unearthed that many dietitians displayed an entitlement towards speaking their home language such as Afrikaans and English to mothers. It is important for dietitians to realize that the needs of their patients take parity over their own world views and perceptions. It is not fair of dietitians to expect mothers to converse in English or Afrikaans, considering that the dietitian entered the territory of the mothers. Moreso, the Patients' Rights Charter is in support of patients receiving healthcare in the language of their choice.

Indeed, it is not the personal failure of the dietitians that they cannot always converse in Sesotho. As previously stated, it is not realistic to expect that dietitians are competent in all the official languages of South Africa. However, the researcher does recommend that dietitians make more efforts towards accommodating mothers in terms of language. It was demonstrated in this study that mothers appreciated it when dietitians make efforts to understand their language and culture. Therefore, language learning and the appropriate use of codeswitching could serve as a

positive reinforcement towards improving the interaction during nutrition consultations. Furthermore, it is recommended that dietitians take special care when using untrained interpreters as to avoid adverse health outcomes and compromising patient confidentiality. In addition, dietitians can also advocate to the NDOH for the appointment of trained dedicated medical interpreters in their healthcare institutions.

6.2.7. Recommendations for researchers

It is recommended that researchers in dietetics and other healthcare professions repeat this research. Additional research is required to determine the full complexity of language barriers and the most effective strategies to overcome them. Other researchers could determine how patient outcomes and healthcare interventions (such as the NCP) are impacted by language barriers in the other indigenous languages used in South Africa. To provide a more complete picture of the linguistic barriers plaguing the nation, this research study can also be conducted in each of the nine provinces across various medical professions and official languages used in South Africa.

Future research studies should consider using indigenous languages to describe better medical terms (Brown & Sprague, 2021). There is also limited research regarding appropriate Sesotho nutrition and medical terminologies. Theme two of this study provides a rationale for the development of a Sesotho glossary relevant to the first 1000 days of life. The development of the Sesotho glossary can also be extended to other life cycles and diseases, and it is not limited to nutrition. The other indigenous languages used in the country would also benefit from the development of nutrition and medical glossaries.

6.3. Limitations of the Study

Due to the study's limited sample size, it may not accurately represent the opinions of all dietitians who provide maternal and child health services to patients who speak Sesotho.. Since the researcher was the transcriber, important information may have been lost during the transcription process by not taking cognisance of nonverbal cues. However, the researcher minimized this possibility through the use of field notes (as discussed in chapter three).

6.4. Significance of the Research

Dietitians, nutritionists, other HCPs, and patients can all benefit greatly from this research study in the real world. Dietitians and other HCPs may find it helpful to use strategies and recommendations presented in this research study to help overcome language barriers in their work contexts. Even though there are eleven recognized languages, there is currently little research on language barriers in the healthcare system within the South African context. In this sense, the researcher has contributed significantly, as many previous studies have concentrated on communication between speakers of Afrikaans, Xhosa, and English.

This research study also contributes significantly towards creating awareness of health disparities and aims to increase nutrition health education efforts in the South African healthcare setting. This study aims to provide scientific evidence as consideration for policymakers, researchers, health program managers and implementers, health related non-government organizations, health care workers, and the entire community at large. The researcher intends that this research will also reach government institutions especially the NDOH, since these departments possess the appropriate resources and platforms to address and eradicate language barriers on a broader scale. The departments of Basic Education, Social Development, Sports, Arts and Culture, and Communication and Digital Technologies are among the many government departments that might find this research helpful.

6.5. Concluding Summary

Language barriers with Sesotho speaking mothers were reported by the majority of the participants. The implementation of the NCP was greatly impacted by language barriers. Poor NCP implementation is likely to have a significant impact on maternal and child healthcare, particularly in the first 1000 days of life. To better address the double burden of malnutrition, the researcher emphasizes the need for more robust nutrition interventions. Fortunately, the participants found several strategies to navigate the language barriers, while it was reported that the NDOH frequently provided little assistance. It was noteworthy that these identified strategies presented their own limitations and required special care from the dietitians when employing these methods.

The researcher plans to disseminate the findings of this current study to the NDOH through submission of the dissertation and publication of articles, and to partake in research forums to create awareness of language barriers in healthcare. In conclusion, in such a linguistically diverse country, many dietitians will probably not reach a point where they can speak all the indigenous South African languages. Fortunately, this research study proves that there are solutions to this dilemma. Furthermore, progress can be made through the development of strategies discussed in section 2.10 – 2.12., to lessen the adverse effects of language barriers on nutrition interventions during the first 1000 days of life, which will help to alleviate the double burden of malnutrition.

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LIST OF APPENDICES

Addendum A

UNIVERSITY OF THE FREE STATE
UNIVERSITEIT VAN DIE VRYSTAAT
YUNIVESITHI YA FREISTATA

UFS·UV
HEALTH SCIENCES
GESONDHEIDSWETENSKAPPE

Health Sciences Research Ethics Committee

05-Dec-202

Dear **Miss Phozia Jansen**

Ethics Clearance: **Language Matters: Exploring the language barriers between dietitians and mothers during nutrition counselling related to the first 1000 days of life**

Principal Investigator: **Miss Phozia Jansen**

Department: **Human Nutrition Department (Bloemfontein Campus)**

Submission Page

APPLICATION APPROVED

Please ensure that you read the whole document

With reference to your application for ethical clearance with the Faculty of Health Sciences, I am pleased to inform you on behalf of the Health Sciences Research Ethics Committee that you have been granted ethical clearance for your project.

Your ethical clearance number, to be used in all correspondence is:**UFS-HSD2022/1733/3101**

The ethical clearance number is valid for research conducted for one year from issuance. Should you require more time to complete this research, please apply for an extension.

We request that any changes that may take place during the course of your research project be submitted to the HSREC for approval to ensure we are kept up to date with your progress and any ethical implications that may arise. This includes any serious adverse events and/or termination of the study.

A progress report should be submitted within one year of approval, and annually for long term studies. A final report should be submitted at the completion of the study.

Research conducted in any Department of Health facility: Researchers are required to sign and return the HSREC approval letters to the provincial Department of Health where they applied. It is also a requirement for researchers to submit electronic copies of their final research findings, and/or make a presentation of their findings and recommendations at departmental research days when and where indicated.

The HSREC functions in compliance with, but not limited to, the following documents and guidelines: The SA National Health Act. No. 61 of 2003; Ethics in Health Research: Principles, Structures and Processes (2015); SA GCP(2020); Declaration of Helsinki; The Belmont Report; The US Office of Human Research Protections 45 CFR 461 (for non-exempt research with human participants conducted or supported by the US Department of Health and Human Services- (HHS), 21 CFR 50, 21 CFR 56; CIOMS; ICH-GCP-E6 Sections 1-4; International Council for Harmonisation (ICH) Harmonised Guideline, Integrated Addendum to ICH E6(R1), Guideline for Good Clinical Practice (GCP) E6(R2), 2016, SAHPRA Guidelines as well as Laws and Regulations with regard to the Control of Medicines, Constitution of the HSREC of the Faculty of Health Sciences.

The Principal Investigator (PI) bears final responsibility for the RIMS application. In the event of any misconduct or improper activities perpetuated by a third party, the PI will be held vicariously liable. The HSREC will bear no responsibility or liability for any actions of a PI and/or third party or breach of confidentiality caused by the PI and/or third party.

For any questions or concerns, please feel free to contact HSREC Administration: 051-4017794/5 or email EthicsFHS@ufs.ac.za.

Thank you for submitting this proposal for ethical clearance and we wish you every success with your research.

Yours Sincerely

Prof. A. Sherriff
Chairperson: Health Sciences Research Ethics Committee

Health Sciences Research Ethics Committee
Office of the Dean: Health Sciences
T: +27 (0)51 401 7795/7794 | E: ethicsfhs@ufs.ac.za
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Addendum B

health
Department of Health
FREE STATE PROVIN

24 November 2022

Ms P Jansen
Human nutrition Department
University of the Free State

Dear Ms P Jansen

Subject: Language matters: Exploring the Language Barriers Between Dietitians and Mothers During Nutrition Counselling Related to the First 1000 Days of Life.

- Please ensure that you read the whole document, permission is hereby granted for the above–mentioned research on the following conditions:
- Participation in the study must be voluntary.
- Consent must be obtained from each participant.
- Serious adverse events to be reported to the Free State Department of Health and/ or termination of the study.
- Ascertain that your data collection exercise neither interferes with the day-to-day running of **All the selected facilities** nor the performance of duties by the respondents or health care workers.
- The Free State Department of Health expects that the researcher will be the responsible data manager according to the POPI Act. The responsibility thus lies with the researcher to ensure that the processing of all participants' personal information and research data is lawful according to the stipulations of the POPI Act (Protection of Personal Information Act 4 of 2013).
- Confidentiality of information will be ensured and please do not obtain information regarding the identity of the participants.
- Department of Health to be fully indemnified from any contravention of the POPI Act as you conduct this study.
- **Research results and a complete report should be made available to the Free State Department of Health upon completion of the study (a hard copy plus a soft copy).**
- Progress report must be presented not later than one year after approval of the project to the Ethics Committee of the University of Free State and the Free State Department of Health.
- Any amendments, extensions or other modifications to the protocol or investigators must be submitted to the Ethics Committee of the University of Free State and the Free State Department of Health.
- **Conditions stated in your Ethical Approval letter should be adhered to and a final copy of the Ethics Clearance Certificate should be submitted to Sebeelats@fshealth.gov.za/Gwantshuws@fshealth.gov.za before you commence with the study.**
- No financial liability will be placed on the Free State Department of Health.
- **Please discuss your study with the Institution Manager on commencement for logistical arrangements.**
- Department of Health is to be fully indemnified from any harm that participants and staff experience in the study.
- As part of the feedback, you will be required to present your study findings/results at the Free State Provincial Health Research Day.

Trust you find the above in order.

Kind Regards

MR. MNG MAHLATSI
HEAD: FREE STATE DEPARTMENT OF HEALTH

Date: 28/11/2022

Head: Free State Department of Health
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Addendum C

Information Pamphlet

Dear Potential Participant

Name of the study: Language Matters: Exploring the language barriers between dietitians and mothers during nutrition counselling related to the first 1000 days of life.

My name is Phozia Jansen, and I am a postgraduate student from the Department of Nutrition and Dietetics, at the University of the Free State. I am currently conducting research and the purpose of this study is to determine the language barriers between dietitians and Sesotho speaking mothers during nutrition consultations of infants and young children. You are invited to take part in this study.

Should you choose to participate in the study, please consider the following:

- The researcher will travel to your institution and conduct a face-to-face interview.
- A voice recording will be made of the interview.
- The interview will take place at an agreed time and will take approximately 60 – 90 minutes to complete.
- Your participation in this research is entirely voluntary.
- You may also withdraw from the study at any time.
- All information collected will be treated with the utmost confidentiality. Only the researcher will have access to your information.
- There are no risks for participating in this study.
- The information obtained will be kept confidential,
- Costs: Participation in this study is free.
- You will not receive any remuneration for partaking in this study.
- Results: Results of this study may be published and/or presented at meetings or congresses.

You may contact the r**esearcher**, Phozia Jansen at 066 265 8880 or email

2008013391@ufs4life.ac.za at any time if you have questions about the research.

You may contact Mrs M. Marais, the Secretariat of the Health Sciences Research Ethics Committee, UFS at 051 401 7387 if you have questions about your rights as a research participant.

Addendum D

Informed Consent

Name of the study: Language Matters: Exploring the language barriers between dietitians and mothers during nutrition counselling related to the first 1000 days of life.

I, _____, confirm that Phozia Jansen from the Department of Nutrition and Dietetics at the University of the Free State, asked for my consent to voluntarily participate in this research study. I agree that I was informed about the nature, procedures, and potential benefits of participation. By signing this document, I confirm that Phozia Jansen may proceed with the interviewing process.

Tick (☑) if the following has taken place. Please tick more than when applicable.	
I have read the information sheet.	
The researcher has explained the study to me.	
I understand the as explained in the information sheet.	
I have had sufficient opportunity to ask questions.	
I am prepared to participate in the study.	
I understand my participation is voluntary.	
I understand that I am free to withdraw at any time without penalty.	
I understand that the interview will be recorded.	
I understand that the results of this study may be published.	
I have been informed that my identity will be protected throughout the data collection and data management process.	
I have received a copy of the information document.	
_____ **Full name of participant**	_____ **Full name of researcher**
_____ **Signature of participant**	_____ **Signature of researcher**
Date: _____. **Contact number: _____.**	**Date: _____.** **Contact number: _____.**

Addendum E

Interview Questionnaire

Participant Information
Age:
Highest Qualification obtained:
Institution where qualification was obtained:
How many years of work experience as a dietitian do you have?
Interview Information
Date:
Purpose of interview: You have been asked to participate in a research study on the language barriers between dietitians and mothers of infant and young children during nutrition consultations related to the first 1000 days of life (i.e., from conception to two years of life). • The information obtained will only be used for research purposes. • The results of the study may be published. • The collected data, names of the participants and institutions will be kept confidential throughout the research process. • Participation is voluntary, and you are free to withdraw from the study at any point. • The aim of this interview is to obtain your experiences, opinions, and perspectives regarding your consultations with Sesotho speaking mothers. • Do you have any questions before we start the interview?
1. What is your first/ home language?
2. Please tell me about all the languages that you are fluent in.
3. Can you explain if you experience any language barriers or gaps when consulting with Sesotho speaking mothers of infants and young children? Please elaborate on this
4. Can you explain any medical terms or concepts related to the first 1000 days of life, that you have difficulty explaining to mothers?
5. What recommendations would you make to improve health communication between dietitians and mothers?