



**Perceptions and experiences of indigenous Black South Africans receiving  
Chiropractic treatment at a teaching Chiropractic clinic at a university of  
technology in Durban.**

**By**

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**Dissertation submitted in partial compliance with the requirements for the  
degree of**

**Master's degree in technology: Chiropractic**

**Durban University of Technology**

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**2024**

## DECLARATION

I, Gugu Magwaza declare that this dissertation is representative of my own work in both conception and execution (except where acknowledgements indicate to the contrary).

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## DEDICATION

I dedicate this dissertation to my mother **Mrs Khonzi Magwaza**, my whole family for their unconditional love and support. Thank you for generating a great foundation for me which enabled me to overcome all the challenges I faced during my years of studying.

To my dad, thank you for being my spiritual guardian, I see you and your never-ending love.

Dr Couchman and Dr Orton, thank you a million times for walking this journey with me.

To my friends, thank you for keeping me sane.

To the DUT Chiropractic Day Clinic stuff, thank you for keeping up with me till the end.

To myeni wami, Ngiyabonga Ngunezi for guiding me, for holding my hand helping me finish off the last chapters of this project, I will keep you close to my heart always and will love you till the end of time!

## **ABSTRACT**

The Chiropractic profession mainly focuses on the prevention, diagnosis and treatment of musculoskeletal disorders. The profession is a young profession mainly in South Africa as it was only recognized recently in 1971, therefore, perceptions about this profession are continually evolving as people continue to experience this profession.

The study aimed to determine the different perceptions of Black indigenous South African people over the ages of eighteen, both males and females, and to further check if their perceptions are influenced by their first-time experience with the Chiropractic student intern at a University Chiropractic teaching clinic in Durban. The information obtained in the study may further assist in outlining the misconceptions the public may have about the profession and assist in the areas that need to be improved.

The qualitative study approach utilized exploratory and descriptive approach to reveal a deeper understanding of the fundamentals of Chiropractic. Data collection was carried out using semi-structured interviews of fourteen participants, first time experience with the Chiropractor and indigenous Black South Africans. All interviews were voice recorded, transcribed and analyzed, which resulted to three domains with numerous themes and subthemes. All the above were explored to fulfil the main aim and objectives of the study.

Majority of the research participants were females and middle aged and were referrals from individuals that had been to a Chiropractor before. The understanding of Chiropractic care theme revealed limited awareness and understanding of the profession, the perception theme revealed a confusion of the profession with other medical professions like conventional medicine and physiotherapy. The experience

theme revealed meeting expectations and having gained more knowledge and clarity about the profession, a desire to return for a follow up treatment and recommending Chiropractic care to others.

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## DEFINITION OF TERMS

**Adjustment** – a procedure in which trained specialists, such as Chiropractors, use their hands or small instruments to apply controlled, sudden force to a joint, with the goal of improving spinal motion and improve the body's physical function (Brown 2018).

**AHPCSA** – the Allied Professions Council of South Africa - known as the statutory health body established in terms of the Allied Health Professions Act, 63 of 1982 to control all allied or complementary health professions (AHPCSA 2015).

**Allopathic medicine** – a system in which medical doctors and other health care professionals, such as nurses, pharmacists and therapists, treat symptoms and diseases using drugs, radiation or surgery; also known as conventional medicine, orthodox medicine, biomedicine or Western medicine (HPCSA 2020).

**Alternative medicine** – any range of medical therapies that are not regarded as orthodox by the medical profession; a profession that aims to achieve healing effects of medicine despite the lack of biological plausibility (Brown 2018).

**CASA** – Chiropractic Association of South Africa (CASA 2017).

**Case history** – a record of a person's background or medical history kept by a doctor or a social worker (Heshemi *et al.* 2015).

**Chiropractic** – a system of complementary medicine based on the diagnosis and manipulative treatments of misalignments of the joints, especially those of the spinal column, which are believed to cause other disorders affecting the nerves, muscle and organs (Brown 2018).

**Clinician** – a doctor who has direct contact with patients, rather than being involved with theoretical or laboratory studies (Brown 2018).

**Culture** – a way of life for an entire society, including arts, beliefs, and institutions of a population group that are passed from one generation to the other (Mngqundaniso and Peltzer 2008).

**Data** – facts or statistics collected for reference or analysis (Elo *et al.* 2014)

**Diagnose** – to identify the nature of an illness or other problem through examination the symptoms (Ismail 2021).

**Domain** – area or territory owned by, or controlled by, a certain ruler (Heshemi *et al.* 2015).

**Experience** – an event or occurrence which leaves an impression on someone (Hays *et al.* 2020).

**Indigenous people** – people originating from, or living naturally in, a particular place; native (Mngqundaniso and Peltzer 2008)

**Perception** – the way in which something is regarded, understood or interpreted (Hays *et al.* 2020).

**Physical exam** – the process of evaluating objective anatomic findings using observation, palpation, percussion and auscultation (Cross *et al.* 2015).

**Scope of practice** – limit of the knowledge, skills, and experience and is made up of the activities one carries out within their practice (Brown 2012).

**Soft tissue** – the tissue in the body that is not hardened by the processes of ossification or calcification (such as bones and teeth) (HPCSA 2020).

**Theme** – an idea that recurs in or pervades in literature (Aspers 2019)

## CHAPTER ONE: INTRODUCTION

### 1.1 Background to the Study

Chiropractic is defined as a system of complementary medicine based on the diagnosis and manipulative treatment of misalignments of joints, especially those of the spinal column, which are believed to cause other disorders affecting the nerves, organs, and muscles (Heshemi *et al.* 2015). A Chiropractor manages joint-related dysfunction by restoring movement using Chiropractic manipulative procedures and modalities, such as ice/heat, ultrasound therapy, interferential current, transcutaneous electrical nerve stimulation (TENS), dry needling, laser, and shockwave therapy to assist with pain reduction and rehabilitation of the patient (Whedon and Song 2012).

The Chiropractic profession was founded in the late 1800s by DD Palmer, who defined the profession as the “science of healing without drugs” (French and Hartvigsen 2020). DD Palmer then became a magnetic healer known for applying quick hand thrusts to the spines of patients during his sessions, which enhanced treatment outcomes of patients (Heshemi *et al.* 2015). An event that occurred in September 1895 in which DD Palmer applied a hand thrust to Harvey Lillard’s spine, resulted in major healing and restoration of his spine (Hawk 2017). Palmer then continued to use this method until he noticed an improvement in patients with other illnesses. This gave way to a theory that nerve impingement may be an initiating factor of other diseases. This procedure was then termed “Chiropractic”, derived from Latin, simply meaning “done by hand” (Hawk 2017).

Chiropractic in South Africa (SA) is regulated by one statutory body, namely the Allied Health Professions Council of South Africa (AHPCSA), and a regulatory body, called the Chiropractic Association of South Africa (CASA). The AHPCSA functions to maintain the internship programs at the University of Johannesburg (UJ) and Durban University of Technology (DUT), it also aims to maintain the primary health care function of Chiropractic, and to ensure that the best interests of patients are preserved, to safeguard the public (AHPCSA 2017). CASA functions voluntarily to advance

Chiropractic in SA, and to maintain the standard of the profession in South Africa (CASA 2017).

Despite the increasing demand for allopathic medicine worldwide, complementary and alternative medicine (CAM) is becoming more popular with many users throughout the world (Morgan 2016). The Chiropractic profession has gained momentum over the years and has shown an increased demand. However, it is still uncertain as to how well this profession is received in the Black ethnicity, especially in South Africa (McGregor et al. 2014). The Health Professions Act 63 of 1982 only recognized Chiropractors as recently as 1971, and as a result, perceptions of Chiropractic are continually evolving as it gains popularity among the public of South Africa (AHPCSA 2017).

## **1.2 Aim of the study**

This study aimed to explore the perceptions and experiences of indigenous black South Africans receiving chiropractic treatment at a teaching chiropractic clinic at a university of technology in Durban.

## **1.3 Objectives**

The research objectives were:

- To explore the perceptions of black South Africans regarding chiropractic treatment at a chiropractic clinic in Durban.
- To describe the experiences of black South Africans regarding chiropractic treatment at a chiropractic clinic in Durban.
- To compare the perceptions prior chiropractic clinic with the perceptions they have after treatment.

## **1.4 Research Questions**

- What are the perceptions of black South Africans regarding chiropractic treatment at a chiropractic clinic in Durban?

- What are the experiences of black South Africans regarding chiropractic treatment at a chiropractic clinic in Durban?
- What effect does the consultation with the chiropractic intern have on the perceptions of indigenous black africans?

### **1.5 Rationale of Study**

The Chiropractic method of treatment is relatively unknown, especially among the African population. Previous research studies have highlighted a gap, that indigenous Black South Africans are an underserved population, with regards to Chiropractic and this study aims to rule out some of the reasons why they are underserved. Previous research has shown that it is perceived as elitist (Mothibi, 2011). This perception is changing since the profession is becoming better known, even in rural communities, due to outreach programs that have been done. These include community healthcare centers, sports drives" and promotions.

Understanding patients' perceptions has been shown to be important, as it influences the treatment outcome. The public has different perceptions of Chiropractic: some consider the profession as their primary healthcare provider, while others only seek Chiropractic treatment as their last resort, and there are still those who perceive Chiropractic to be dangerous (Wilson, Swincer and Vemulpad 2017). During the last decade these perceptions have been changing, as the profession gains popularity among contemporary societies (Bredin et al. 2017).

Studies such as that of Robbertze (2018) were utilized to develop interview questions for this study. Robbertze (2018) conducted a study looking at the perceptions, expectations, and experiences of first-time Chiropractic patients consulting at a teaching clinic in KwaZulu-Natal. Limited awareness and understanding of the profession were one of the key findings in the study (Robbertze 2018).

It should be expected that the results from this study may differ as this study only focuses on one specific population group, which is indigenous Black South Africans.

Patients' perceptions and the effect of the experience with the Chiropractic student intern on patients' expectations were explored using semi-structured interviews.

The use of qualitative research allowed the researcher to develop a true understanding of the phenomena experienced by participants, and by eliminating the researchers' personal assumptions. The results from this study are expected to assist Chiropractic students, and the profession at large, in patient education specifically on the demographic group focused on this study. An in-depth understanding of patients' perceptions will assist practitioners, in terms of patient-practitioner communication, to reduce the risk of undesirable treatment outcomes, increased patient compliance, and patient participation of those in their care.

These factors will have a positive influence on the profession, by improving teaching and learning opportunities. The DUT Chiropractic Day Clinic will benefit greatly by this through increased income and a favorable reputation, as patients with positive perceptions will, most likely, return for treatment and influence others to come for treatment at the clinic.

## **1.6 Outline of Chapters**

**Chapter one** is an introduction to the study, which includes a definition of Chiropractic care, an introduction of CAM, an overview of Chiropractic care worldwide and in South Africa, as well as a brief understanding of the two terms: perceptions and experiences. The main aim of the study objectives and research questions are outlined.

**Chapter two** is an in-depth review of the literature in relation to the study. It includes information relating to the Chiropractic profession and its background, in rural and suburban areas. It outlines the effect of race, culture and occupation on Chiropractic awareness. The terms "perception" and "experience" are defined, and the relation between the two terms is discussed. A summary of the literature relating to perceptions and experiences of Chiropractic in the African ethnicity are included. Selected demographics are presented.



**Chapter three** states the methodology followed in the study; this qualitative study utilized a descriptive design. Type of sampling used to obtain the study population, and additional sample characteristics are listed. The data collection process is discussed; number of interviews; inclusion and exclusion criteria during the recruitment process; as well as procedures used during the interview process for the main study. The pilot study aim, and its process are discussed under methodology. Lastly, ways in which the principles of ethics (listed) were upheld are provided.

**Chapter four** provides the results of the study.

**Chapter five** discusses the results of the study. Themes and subthemes are provided and discussed. Each participant's response is explored and compared to existing literature. Limitations to the study are discussed.

**Chapter six** concludes the study and provides further recommendation(s).

## **Chapter 2 Literature review**

### **2.1 Introduction**

This chapter outlines the background literature on the Chiropractic profession. It also reveals the history of Chiropractic worldwide and in South Africa. The Chiropractic scope of practice is presented, as well as a detailed explanation of the Chiropractic care that patients may receive during a consultation at the DUT Chiropractic Day Clinic (CDC). Literature relating to perceptions, expectations, and experiences of Chiropractic and other healthcare professions, is included. Misconceptions about the profession, in conjunction with other professions, are discussed; an overview of its adverse effects is outlined; demographics relating to the study are also explored.

### **2.2 History of Chiropractic Care**

Chiropractic began in 1895 when Daniel David Palmer of Iowa performed the first Chiropractic adjustment on a partially deaf janitor, Harvey Lillard. This experience led Palmer to open a school of Chiropractic two years later (Corber *et al.* 2017). D.D. Palmer formulated Chiropractic philosophy by combining known spiritual and metaphysical concepts with the scientific principles of that time (Bredin *et al.* 2017). He postulated that a minor positional change of a vertebra, known in Chiropractic as the “subluxation”, could alter nervous system functioning, leading to discomfort (Brown 2018). To correct this, the Chiropractic adjustment was applied to the affected segment to allow the body to heal itself (Brown 2018). He believed that disease was caused by two internal imbalances, which either lead to hypofunction or hyper-function of bodily systems, rather than an invasion from an external source (Hawk 2017).

### **2.3 Definition of Chiropractic**

The Chiropractic profession falls under the umbrella of complementary medicine (CM) (AHPCSA 2017). CM is a term usually used to describe a medical product or practice that is used together with complementary or instead of alternative standard medical care (AHPCSA, 2017). CM may include dietary supplements, vitamins, herbal preparations,

special teas, acupuncture; dry needling, soft tissue therapy, magnet therapy, spiritual healing, adjustment therapy, and meditation (Morgan 2016). The literature has not covered enough about CM therapies (safety and indications) compared with standard medical procedures, which requires CM therapies to be further researched (Ratini 2021).

The literature has shown that the initial and long-term use of CAM has become more popular over the years. Factors such as demographics and services rendered, as well as the health status of the patient, have played a major role in the use of CAM therapies (Lang and Wang 2018).

Chiropractic is defined as a system of complementary medicine that is based on the diagnosis and manipulative treatment of misalignments of joints, especially those of the spinal column, which are believed to cause other disorders affecting the nerves, organs, and muscles (Heshemi *et al.* 2015). A Chiropractor manages joint-related dysfunction by restoring movement using Chiropractic manipulative procedures and modalities, such as ice/heat, ultrasound, interferential current, transcutaneous electrical nerve stimulation (TENS), dry needling, laser therapy and shockwave therapy to assist with pain reduction and rehabilitation (Whedon and Song 2012).

A visit to a Chiropractor will entail taking a detailed health history of the patient (French and Hartvigsen 2020). A full physical examination and a regional examination then follows, to assess the patient's condition (French and Hartvigsen 2020). This includes analyzing the patient's vital signs, systems review and posture, testing range of motion, and performing a neurological examination and orthopedic testing (Beliveau *et al.* 2017). X-ray examinations and laboratory tests may be requested if necessary (Beliveau *et al.* 2017).

## **2.4 Chiropractic in South Africa**

The first Chiropractors arrived in South Africa in 1926. In 1928, the South African Medical and Dental Act came into effect, but Chiropractic services were not included in that Act (Booyesen *et al.* 2021). Limited complementary and alternative health care services and

the lack of the Chiropractic profession in the public health care sector, including hospitals, combined with private practice, has impacted negatively on the awareness of the profession and the utilization of its services in the Black South African population (Weigel, Fredic and Suzanne 2011).

In 1962, Chiropractic was deemed not to have a scientific basis, as it was cited in the “Report of the Commission of Inquiry into Chiropractic” that what is covered under the scope of Chiropractors can be included under the physiotherapy and the orthopedic curriculum (Van Rensburg 2012). The Chiropractors, Homeopaths and Allied Health Service Professions Act 76 of 1971, which fought for the legislation of Chiropractors and students, was only able to register existing Chiropractors, and discontinued the registration of new Chiropractors and further Chiropractic training, which then had a negative impact on the public Chiropractic awareness and poor marketing for the Chiropractic profession (CASA 2017). Chiropractic is now one of the professions included in the Allied health Professions Council of South Africa with over 800 registered practitioners (CASA 2017).

The profession has had its own fair share of struggles in gaining recognition as a useful and essential service in health provision, as it is met with a great deal of opposition from the medical association to the point that it had to form its own association for its representation (Van Rensburg 2012). In 1982, the Allied Health Professions Act 62 of 1971 was passed, and the Allied Health Professions Council of South Africa was established to control all allied health professions, including the Chiropractic profession (Ericksen-Pereira, Roman and Swart 2020).

The president of the Chiropractic Association of South Africa approached the Minister of Health numerous times and provided evidence-based documents in the hope of getting Chiropractic into the health sector. However, the legislation of Chiropractic was still prohibited (Ericksen-Pereira, Roman and Swart 2020). This struggle only came to an end in 1985 when parliament approved the Bill known as the Associated Health Service Professions Amendment Act, which allowed the registration of new Chiropractors and Chiropractic students (Booyesen *et al.* 2021). This came after the chairman of CASA had

spent time at international accreditation agencies of Chiropractic and Homeopathy to gain knowledge and submitted information regarding the educational standards of Chiropractic (Ericksen-Pereira, Roman and Swart 2020).

With the enactment of apartheid laws in South Africa in 1948, racial discrimination was institutionalized (Joseph-Salisbury 2019). In the apartheid era, the health care system in South Africa was divided based on race, a situation that prevailed until 1994 (Mulaudzi 2022). This left a great division between the public and private healthcare system that is still prevalent today (McGregor *et al.* 2014). This situation is evidenced by the lack of certain professions, including Chiropractors, in rural areas, as well as the mal distribution of practitioners, who mainly prefer to practice in urban areas due to market forces, which in most cases, are predominantly white communities (McGregor *et al.* 2014). It is in this environment that Chiropractic finds itself in South Africa (Van Rensburg 2012). It has been marginalized in the private healthcare sector, which is seen as elitist, and historically known as the white healthcare system (Van Rensburg 2012).

It has been noted in the literature that, even in the United States, some people refer to Chiropractic as a specialty with limitations, with an assumption that most Chiropractic practitioners practice at private offices, and mostly depend on referrals (limited practitioner model) and is limited to those who are on medical aid or are financially able to (Brown 2018). Chiropractors in private practice also rely on mouth-to-mouth referrals to get more patients, with a lack of hospital privilege being one of the disadvantages in public awareness of Chiropractic (Brown 2018).

Misperceptions have developed regarding the Chiropractic profession, such as believing that Chiropractic doctors are not real doctors (Bart and Johnson 2021). However, Chiropractors undergo extensive training in their area of expertise that allows them to be able to treat within their scope of practice (Bart and Johnson 2021). Chiropractors must go through a six-year course, consisting of two years of basic sciences, followed by four years of specializing in Chiropractic, followed by an internship program with the Allied Health Professions Council of South Africa, for them to be able to obtain their master's degree in technology: Chiropractic (AHPCSA 2017).

Another misperception claims that there is no evidence to support the effectiveness of Chiropractic manipulative procedures. However, joint manipulation alone has been shown to be very effective in the treatment of acute and chronic musculoskeletal conditions, as it provides immediate pain relief (Booysen *et al.* 2021). Others believe that Chiropractic can only treat neck pain, whereas, in reality, Chiropractors are spine, muscle and nervous system experts, and they are trained to assess, diagnose and to treat conditions that impact the neuro- musculoskeletal system, as well as other structures in the body (Gheta, Peterson and Yelverton 2015).

Some people confuse Chiropractic with professions like physiotherapy, since both professions focus on managing pain and stiffness using non-invasive procedures and non- surgical techniques; both professions may use manual, or hands on, therapy to treat specific conditions (Burstrom *et al.* 2017).

The main differences between these two are: physiotherapists focus on providing pain free movement; they perform stretches and exercises to improve mobility (Burstrom *et al.* 2017). Chiropractors, on the other hand, are mainly beneficial for pain relief and alignment of joints, as they help the body heal itself through interventions designed to adjust and align (Brown *et al.* 2014a). Chiropractic treatment procedures take place using specialized equipment to provide one with the best treatment results, designed for all age groups (Ryan 2018).

Osteopathic medicine has also been linked, in most cases, since both professions treat musculoskeletal disorders. However, Chiropractors deal mainly with spine ailments and use imaging procedures to rule out the root cause (Ryan 2018). What differentiates the two from each other is, firstly, the qualification each holds - an osteopath holds a medical degree, including the rights to prescribe medicine, whereas a Chiropractor only qualifies at Masters' degree level and does not prescribe medication (Brown *et al.* 2014a). The other difference between the two is the type of treatment that they administer. Chiropractors use Chiropractic manipulative procedures and modalities to treat neuro-musculoskeletal diseases, whereas osteopaths tend to focus more on manipulating soft tissues through stretching, massage and medication (Brown *et al.* 2014a). According to

Menze *et al.* (2018), Chiropractors, normally referred to as “bone doctors” may also be confused with traditional healers, who perform African traditional rituals (Mmamoshedi and Sibanda, 2019).

Peltzer and Mngqundaniso (2008) conducted a study on the use of traditional medicine in chronic diseases in KwaZulu-Natal. The results revealed that, in urban African settings, patients often choose traditional health practitioners as primary care practitioners, and they will continue to access these systems because they are consistent with local cultural values and beliefs (Peltzer and Mngqundaniso 2008). Traditional healers believe that ancestors must be shown respect through rituals and animal sacrifice, for harmony between the living and the dead and for a trouble-free life (Menze *et al.* 2018).

Traditional healers had existed for many centuries before the arrival of Western Christian missionaries, and the westernization of the African continent in the 19th century (Zuma 2016). Many Africans became Christians not by choice but by intimidation (Zuma 2016). In many parts of Africa, an African child was required to have a Western name before they could be enrolled at a primary school. This conversion, however, did not lead to Africans completely abandoning their religion and traditional African healthcare (Mokgobi 2014).

Traditional healers, or sangomas, have been present for centuries, yet many people still seem to misunderstand how it relates to God and healing (Mmamoshedi and Sibanda 2019). A sangoma is a practitioner of ngoma, a philosophy that is based on a belief in ancestral spirits (Mokgobi 2014). It is believed that through sangomas, ancestors from the spirit world can give instruction and advice to heal illness, social disharmony and spiritual difficulties (Mokgobi 2014). Sangomas practice in a sacred hut, known as indumba, where they believe their ancestors reside (Mokgobi 2014).

The services of traditional healers extend far beyond just using herbs for physical illnesses and throwing of bones to communicate with the ancestors (Mokgobi 2014). It is difficult to understand the role of a traditional healer without taking into context the concept of traditional African religion or spirituality (Zuma 2016).

Traditional healers go through an extensive training process, also known as Ukuthwasa or initiation, where they come out as qualified traditional healers (Mokgobi 2014). Most of these qualified traditional healers refer to themselves as traditional doctors (Beyers 2020). Sangomas use certain bones of dead animals to connect with ancestors to help them diagnose an individual or family. Most sangomas do not treat the illness after a diagnosis; instead, they will refer the patient to inyanga (Beyers 2020). Sangomas fulfil different social roles in the community including divination; healing physical, emotional, and spiritual illnesses; and directing birth or death rituals (Mokgobi 2014). Sangomas are referred to as bone doctors in Africa due to the use of bone throwing when diagnosing an individual. Confusion arises from the existence of other bone doctors that deal with ailments that pertain to the musculoskeletal system (Beyers 2020).

Sangomas do not rely on Western modalities for the diagnosis. However, sometimes inyangas also refer to the diagnosis made by a Western doctor in their modalities, to treat an individual using their herbs or traditional remedy prepared for that individual (Zuma 2016).

Western medicine is known for prescribing drugs for a disease; it is a system of medicine where medical professionals utilize medical treatments to treat mainly the symptoms and the disease, rather than looking at the root cause or treating the person (Silvano 2020). Eastern medicine focuses on treating the person rather than just symptoms, it uses a nonconventional approach that focuses on a person holistically (Silvano 2020).

Education and awareness towards Eastern medicine is still limited, and people still believe in taking drugs to cure the symptoms of their illness (Beyers 2020). Western doctors use diagnostic modalities to diagnose a disease, and they use medication to treat diseases, once diagnosed (Silvano 2020). Eastern medicine approaches diagnosing, treating, and preventing diseases in a holistic manner; this includes multiple factors that embrace the mind, the body, and the spirit (Zuma 2016). With all the misconceptions about the profession, Chiropractic has been undertaking measures to create awareness, within the world's population, of the services that they offer, and educate them on the benefits of Chiropractic treatment (Walker 2016). This has been undertaken due to a



noticeable lack of education about the Chiropractic profession, compared to Western medicine (Whedon and Song 2012). Most research studies, which were conducted in the United States of America, Canada, and the United Kingdom to determine the awareness of Chiropractic care, concluded that many Black people do not seek the services of a Chiropractor. This is due to a lack of awareness about the Chiropractic profession, as well as due to limited access to it, and financial barriers (Brown *et al.* 2014a).

A study on the awareness of the Chiropractic profession, amongst the Black population living on the East Rand in South Africa, was conducted in 2012 to determine their knowledge, usage, need, and attitude towards the Chiropractic profession (Mothibi 2011). Results revealed that only 17.1% had knowledge about Chiropractic and 68.4% had not utilized Chiropractic services before (Mothibi 2011). Almost 90% of participants said that they would like to know more about Chiropractic and would like to have Chiropractic services in their living or working area. The study concluded that Black SA participants in Daveyton had little knowledge about Chiropractic as a profession, and that educational efforts were needed to inform this sector of the South African population (Mothibi 2011).

## **2.5 Durban University of Technology Chiropractic Day Clinic (DUT CDC)**

The DUT Chiropractic Day clinic (CDC) is situated in the Durban city center and was opened at Technikon Natal, now known as the Durban University of Technology, in 1994 by Prof Andre du Preez (Twiggs 2015). Treatment is offered at a reduced rate by Chiropractic student interns, who are finishing their Masters' degree. Each Chiropractic consultation at the DUT CDC begins with a brief case history, taken by a qualified Chiropractic clinician prior to the student beginning their assessment (Twiggs 2015).

Following on, the students perform their own thorough case history and physical examination of the patient. During this time, the student presents their findings to the qualified Chiropractic clinician twice – once upon completion of the case history, and the second time after the completion of the physical examination (Twiggs 2015). These presentations to the clinician enable the student to discuss the case and the proposed

treatment plan (Twiggs 2017). The initial consultations take an average of two and a half hours to complete (Twiggs 2015).

## **2.6 Adverse effects of Chiropractic treatment**

There are minor side effects of Chiropractic treatment, especially with spinal manipulation, which may occur, one of which includes local or additional pain (Hays *et al.* 2020). Sometimes, but less frequently, headache, radiating pain, stiffness and, in some cases, fatigue may occur (Woggon 2015). Although rare, complications such as cauda equina syndrome and cerebrovascular accidents have been reported (Meeka and Haldiman 2017).

Most people who are ill-informed and/or poorly educated have made numerous references to Chiropractic treatment modalities as being “risky” and unsafe (Wilson, Swincer and Vemulpad 2017). The other possible explanation for the lower number of people seeking Chiropractic care as primary healthcare is the limited scientific literature about spinal manipulation and its benefits (Wilson, Swincer and Vemulpad 2017).

First time Chiropractic patients reported a fear of manipulation, which is normally induced by the cracking or popping sounds when the nitrogen gases are released; local or radiating pain during an adjustment; fear of paraplegia in children, and risks of subarachnoid hemorrhage (Lang and Wang 2018). Other serious, but rare, complications of Chiropractic adjustments include disc herniation, or worsening of an existing disc herniation, and compression of nerves in the lower spinal column if not done correctly (Hays *et al.* 2020). These major complications occur if adjustments are not done correctly; manipulating unstable fractures; the presence of metastatic lesions or any space occupying lesion; and adjusting in the presence of osteoporotic diseases (Lang and Wang 2018).

Cauda equine has been reported to be one of the serious complications, because it results in loss of bowel movement, reduced libido, and anesthesia of the groin and anus (Bolvig, Niazi and Samran 2019). Cauda equine syndrome occurs when there is a

dysfunction of multiple lumbar and sacral nerve roots of the cauda equine; one of its major symptoms is unilateral or bilateral sciatica (Lang and Wang 2018).

It has been reported that high velocity neck manipulation can result in vertebral artery dissection, which then leads to cerebrovascular accident (CVA) or stroke (Bolvig, Niazi and Samran 2019). The risk of suffering from cerebrovascular accidents during Chiropractic manipulation is very rare; they are mostly linked to severe complications that follow a complicated surgery. Hawk (2017) wrote that CVAs are mostly related to more strain being placed on the artery during daily activities and diagnostic testing, rather than Chiropractic adjustments.

Chiropractors and Chiropractic student interns practicing take a thorough case history, before proceeding to treat the patient, which would pick up all the red flags (Heshemi *et al.* 2015). Chiropractors are trained to rule out all the red flags during history taking and physical examination which means that, in normal circumstances, Chiropractic treatment is safe, and if adverse effects do occur, they are generally not severe (Heshemi *et al.* 2015).

## **2.7 Perception versus experience**

Perception is defined as the ability to see, hear, and become aware of something through one's senses (Albright 2016). It refers to the way sensory information is interpreted and consciously experienced; it involves both bottom-up and top-down processing (Melloni *et al.* 2015). Bottom-up processing refers to the fact that perceptions are built from sensory input, but how we interpret this sensory input is influenced by the knowledge available, our past experiences, and our thoughts (Albright 2016). Experience is defined as the direct observation of, or participation in, events as the basis of knowledge (Carre" *et al.* 2017). Previous experience greatly influences how people perceive things or events; what you perceive is strongly influenced by your experience, your education, culture, and values (Carre" *et al.* 2017). Other factors may also affect your perception, such as, attention to detail and the analysis of information (Gutmann, Podovano and Voigt 2019).

According to Cote", Millard and Mior (2021) experience refers to conscious events in general, more specifically perceptions, or to the familiarity that is produced by these conscious processes. It is understood as a conscious event; in the widest sense, experience involves a subject to which various items are presented (Gutmann *et al.* 2019). Experience is what one has already done, and it leaves an impression on one (Kashyap 2016). One's experience of something can alter one's perceptions of it (Gutmann *et al.* 2019).

## **2.8 Public perceptions of Chiropractic**

Perceptions are mostly derived from ones' expectations and past experiences, because people are most likely to see what they expect to see irrespective of the true traits of the object being perceived (Cote", Millard and Mior 2021). Thus, perceptions of people of Chiropractic are mostly from what friends, family, and media reports have mentioned to these people (Robbertze 2018). In most cases, patients who seek Chiropractic for the first time lack an understanding of Chiropractic, rather than a lack of acceptance of the profession (Robbertze 2018).

Robbertze (2018) outlined the importance of patients' experiences when receiving treatment, and how that could help in growing the profession. Interviews were conducted with first time Chiropractic patients about their perceptions, expectations, and experiences with the Chiropractic student intern at DUT. Most of these participants were White, Colored, and Indian middle- aged individuals (Robbertze 2018).

Ninety percent of those interviewed reported positive outcomes from their Chiropractic appointment and said that it had met and even exceeded their expectations (Robbertze 2018). Ten percent (10%) reported that there was room for improvement; this was mainly due to a prolonged appointment time and discomfort during the adjustment procedure, and because they did not expect a follow up consultation would be needed (Robbertze 2018). It was concluded from the study that patients who have a positive perception of their experience at the DUT CDC, were more likely to return for treatment and recommend it to others (Robbertze 2018).

Brendin *et al.* (2017) conducted a study in Auckland, New Zealand where a Chiropractic public marketing program was conducted. The public marketing event was conducted in three locations: a community event, an exposition, and a university campus market day (Brendin *et al.* 2017). A minority of the participants had negative perceptions of Chiropractic (15.9%), 29.2% were neutral, and the majority (54.9%) gave positive feedback about their perceptions of Chiropractic (Bredin *et al.* 2017). In the study response, it was found that direct or indirect exposure to Chiropractic public place marketing events may possibly have a positive influence on peoples" perception about Chiropractic (Bredin *et al.* 2017).

Table 2.1 Factors influencing perception: Neisser Classification (Neisser's perceptual cycle came up with these three channels when defining perception).

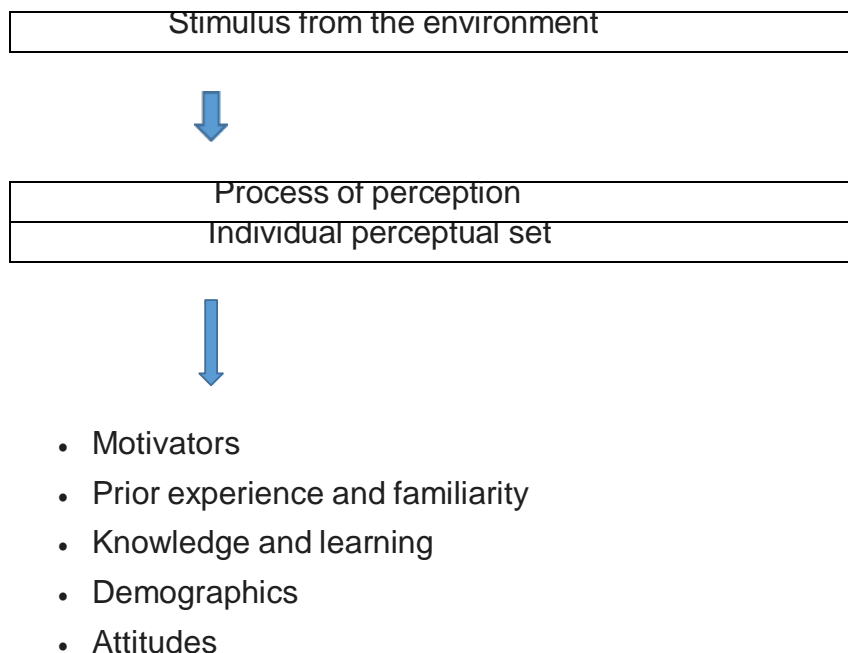
<p><b>Factors in the perceiver (participant)</b></p> <ul style="list-style-type: none"> <li>• Age</li> <li>• Ethnicity</li> <li>• Education</li> <li>• Culture</li> </ul>
<p><b>Factors in the object (The Chiropractic profession)</b></p> <ul style="list-style-type: none"> <li>• History</li> <li>• Growth</li> <li>• Novelty</li> <li>• Sound</li> </ul>

### Factors in the environment (KwaZulu-Natal)

- Time
- Setting (Urban or rural)
- Accessibility

## 2.9 Factors in the perceiver that affect perception.

Information is not just interpreted immediately from the stimuli; past and present knowledge is often used to interpret sensory information (Hayes 2018). The concept of perceptual set states that past experiences and past knowledge of the perceiver may bias the interpretation of a certain stimuli (Hayes 2018). This concept is illustrated in the flow diagram below:



## 2.10 Experience

Experience is referred to as practical contact with conscious events, or observation of facts. It involves a subject to which various items are presented. Unreal objects can be included as well, for example, dreams or hallucinations (Hays *et al.* 2020). Experience is usually identified with perception and contrasted with other types of conscious events, such as thinking or imagining. In a slightly different sense, experience refers not to the conscious events themselves, but to the practical knowledge and the familiarity they produce (Carre" *et al.* 2017).

Understanding patients" experiences of healthcare provide healthcare practitioners with an opportunity to rule out the most valuable aspects of healing (Carre" *et al.* 2017). To provide patient-centered care, practitioners ought to use a compassionate approach; treat the patient with dignity; treat the patient holistically; and consider the patients" psychological and psychosocial well-being (Hays *et al.* 2020).

It is of importance that there is empathy, respect, and sensitivity associated with consulting with a patient, and an understanding regarding their condition (Hays *et al.* 2020). Some of the factors that influence patients' experience with a practitioner involve listening to the patient, demonstrating trustworthiness, treating the patient in a friendly and caring manner, and providing clarity and education to the patient about the Chiropractic profession (Hays *et al.* 2020).

In 2003, a study was done by Poter, Gordon, and Hamer (2018) in Australia which focused on the factors influencing patient experiences when visiting a Chiropractor or physiotherapist. One of the factors was therapists' communication ability, which involves listening to the patient, showing empathy to the patient, doctor-patient understanding, trustworthiness, and a friendly and caring manner towards the patient, as well as adequate patient education about health and the profession involved (Poter, Gordon and Hammer 2018). In addition, the therapist should provide the patient with adequate and satisfying treatment (Poter, Gordon and Hamer 2018). The study found that influence

from media, friends, or family affects patient treatment outcomes, as the patient's perceptions are affected by these factors.

MacPherson *et al.* (2015) reported that not much is understood about patients' experiences and expectations of Chiropractic care, their perceptions of benefits, and the risks of having a Chiropractic adjustment done. Most participants reported two main benefits of Chiropractic - reduced pain after manipulation (92%), and increased mobility (80%). A minority of the participants reported unexpected and unpleasant reactions during their treatment procedure, mostly fatigue and pain (MacPherson *et al.* 2015). In most cases, participants reported less concern about these reactions, and therefore it was concluded that patients' expectations were met for most aspects of care (MacPherson *et al.* 2015).

In conclusion, the study reported high levels of patient satisfaction with the benefits of their Chiropractic care. There were no serious adverse effects reported, however, some patients reported concerns about pain and numbness in the limbs after an adjustment, but in general patients' expectations were well met (MacPherson *et al.* 2015).

A study done in Sweden by Sigrell (2017) found that whilst patients and Chiropractors had similar expectations in relation to key areas, such as the Chiropractor diagnosing and explaining the root cause of the problem to patients, there were other patient expectations that differed. Some of the patient expectations were that they were more likely to expect a rapid improvement in their condition after one consultation (Sigrell 2017). This study also highlighted that, as much as there are adverse effects related to manipulation, the benefits of manipulation outweighed the risks (Sigrell 2017).

Cote, Mallard and Mior (2021) conducted semi-structured interviews in a study done in France, which aimed to describe the characteristics of patients who received Chiropractic care at the University hospital of Toulouse. Their expectations, experiences of care, and their satisfaction after treatment were looked at. Participants who were referred for Chiropractic care in the hospital between January and December 2020 were eligible to participate in the study. Participants had to give the following data: demographics,



previous Chiropractic care, pain location, the intensity of pain, disability, as well as health-related quality of life, and depression symptomatology.

Seventeen participants were interviewed; all participants had chronic pain with a median pain intensity of 5/10 on the NRS scale. Nine of the seventeen participants presented with multiple pain locations; thirteen of the total participants presented with lower back pain; and eight participants presented with neck pain. All these participants explained that they expected a caring environment with the Chiropractor and, overall, these participants were satisfied with their care and the collaboration between Chiropractors and physicians (Cote", Mallard and Mior 2021).

The study provided data regarding the collaboration between Chiropractors and physicians in France; these findings will help to improve the relationship and future collaborations between the two and other healthcare practices. Facilitators and barriers to patient expectation and satisfaction were identified in the study and will need to be addressed to improve the partnership (Cote", Mallard and Mior 2021).

Existing literature regarding the perceptions and experiences of Chiropractic patients was discussed. It was noted that the studies that were based outside of SA and their literature contained data specifically pertaining to new Chiropractic patients, who lacked any previous personal experience of chiropractic. The confusion between different types of bone doctors in Africa, namely, physiotherapists, Orthopedics, Osteopathy, and African traditional medicine were also discussed. There is evidently lack of existing information relating to first-time Chiropractic patients at teaching clinics about their perceptions and experiences of Chiropractic treatment.

## **CHAPTER 3: RESEARCH METHODOLOGY**

### **3.1 Introduction**

Research design is defined as the structural framework of various research methods, as well as techniques that are utilized by the researcher (Sileyew 2019). Research design allows researchers to sharpen the research methods suitable for the subject matter (Sileyew 2019). In qualitative studies, research design is exploratory and explanatory in nature, and answers the “what’s” and “why” questions; it is mainly focused on why certain theories exist and what would be the respondents’ answers to them (Thelwall 2022).

Essential elements of research design recognize the fact that it cannot be decided without a problem statement and include sampling methods and tools to be used for data collection; it guides methods used for data collection and, lastly, it helps researchers narrow down to a particular measurement of analysis (Aspers 2019). Qualitative research is suitable for this study to gain an in-depth understanding of the perceptions and experiences of patients, and to further explore their thoughts (Busetto 2020). It is inductive in nature, as it is driven by the participants’ experiences rather than a pre-determined hypothesis produced by the researcher (Busetto 2020).

This study adopted a qualitative, descriptive, and exploratory method. Qualitative research is a process of naturalistic inquiry that seeks an in-depth understanding of social phenomena within their natural setting (Aspers 2019). A qualitative descriptive, exploratory study focuses on the “why” rather than the “what.” questions and relies on the direct experiences of research participants (Busetto 2020). It is inductive in nature as it involves an interpretative and naturalistic approach to its subject matter (Aspers 2019).

An exploratory design involves a versatile and inductive approach, to investigate and gain a greater understanding of the phenomena being studied (Thelwal 2022). Descriptive research refers to the methods that describe the characteristics of the variables under study (Busetto 2020). Qualitative research has the potential to provide the depth and richness necessary to reveal factors influencing patient utilization and evaluation of Chiropractic care (Austin and Sutton 2015).

### **3.2 Research questions:**

- What are the perceptions of indigenous Black South Africans of Chiropractic treatment at a Chiropractic teaching clinic in Durban?
- What are the experiences of indigenous Black South Africans of Chiropractic treatment at a Chiropractic teaching clinic in Durban?
- What effect does the consultation with the Chiropractic student intern have on Black South Africans?

### **3.3 Study setting**

The DUT Chiropractic Day Clinic is situated in the city of Durban in KwaZulu-Natal, South Africa. The clinic was officially opened in 1994 by Prof Andre du Preez, and, ever since, the clinic has offered treatment at a reduced rate by student interns completing their Masters" degree in Chiropractic (Twiggs 2017). The clinic caters for all individuals presenting with neuro-musculoskeletal complaints.

### **3.4 Population**

The study population is defined as a subset or collection of individuals or objects that is the focus of a scientific query. It is normally for the benefit of the population that research is done (Aspers 2019). The target population for the study was Black indigenous South Africans who were able to access the clinic for treatment, - both females and males; individuals from outside of Durban, who visited the clinic for the first time, were also recruited. Most of the participants who participated in the study resided in Durban and surroundings, and more than two thirds were permanently employed. Participants from Durban townships (Umlazi and KwaMashu), Northern KwaZulu-Natal (Nkandla) and Newcastle (KZN) participated in the study. Participants from the ages of eighteen upwards were allowed to participate in the study.

### **3.5 Sampling**

Sampling is a definite plan for obtaining a sample from a given population. It refers to a procedure that the researcher uses to select items for the sample (Ames 2019). There are steps to be followed when sampling: the type of the universe, sampling unit, source list, the size of the sample and sampling procedure (Ames 2019). A non-probability, convenience sampling technique was used, which involved selecting individuals, using a subjective method - a fast, inexpensive way of selecting a sample for this research project, as it did not require a survey frame (Austin and Sutton 2015).

Convenience sampling involved selecting participants who were easily accessible and who suited the inquiry (Austin and Sutton 2015); those who had experience of the phenomenon under study. Convenience sampling means data collection for market research is done from a conveniently available pool of participants, this is the most used sampling technique, as it is uncomplicated, prompt, and economically convenient in many cases (Aspers 2019). Other advantages of this sampling strategy are that it is fast, and has fewer rules to follow, which makes it easier for the researcher to conduct research (Aspers 2019).

#### **3.5.1 Sample size**

Qualitative samples tend to be small and are non-random (Austin and Sutton 2015). Baker and Edwards (2012) suggested a sample size of fourteen; however, interviews were performed until the same themes and issues were repeated (data saturation). Data saturation refers to the point in the research process when no new information is discovered in data analysis, and this redundancy signals to researchers that data collection may cease (Austin and Sutton 2015). This may be more, or fewer, than the suggested fourteen interviews (Baker and Edward 2012). Here, a sample size of fourteen interviews was conducted, plus an additional one for a pilot study.

### **3.5.2 Sample recruitment**

Participants recruited were indigenous Black South African patients from the DUT CDC, who were willing to take part in the study. Advertisements were posted around the clinic and campus informing the public about the research. Patients were approached directly, informed of the study, and asked if they would like to participate.

A convenient sampling method was utilized when recruiting participants for this study. Indigenous Black South African individuals presenting to the clinic for the first time, who had never been to a Chiropractor prior to the study, were approached to participate; those who agreed were told about the study, and a letter of information was given to them with an informed consent for them to sign. Most of the participants were recruited in IsiZulu, as it is language spoken and the researcher is fluent and could best describe in IsiZulu, making sure that participants understood what the research project was about; some were recruited in English. Patients had to meet the inclusion criteria to participate in the study.

#### **3.5.2.1 Inclusion criteria**

- Indigenous Black South Africans, male and/or female over the age of 18 years.
- Patients who had not been to a Chiropractor before.
- Participants who have read the letter of information (Appendix C/Appendix I) and signed the letter of informed consent form (Appendix E/J).

#### **3.5.2.2 Exclusion criteria**

- Black South Africans who have seen a Chiropractor previously (whether in private practice or at the CDC).
- Participants who do not sign the informed consent form.
- People who are non-indigenous Black South Africans.

### **3.6 Study data**

#### **3.6.1 Data Collection**

After DUT Institutional Research Ethics Committee (IREC) approval was granted and the study tool had gone through pilot testing. Only one participant participated in the pilot study as this was done for interview trial testing and results did not form part of the 14 interviews presented for the main study.

A letter of information was presented, which detailed all the information about the research study, and allowed these participants to make an informed decision about participating in the study. They were given a consent form to confirm that had agreed to participate in the study, to sign prior to the interview process commencing. An interview guide was printed out for all the participants, which contained the list of questions to be asked at the interview. Data in this study was collected through one-on-one interviews, in private rooms at the DUT CDC.

No challenges were met during the data collection process, as the interviews were only conducted after the patients' appointment with the Chiropractor at the clinic; this helped to save time for the patient, and most patients arrived on time for their appointments.

The researcher conducted interviews during her clinic shift, in her clinic uniform, privately in the clinic treatment rooms. Refreshments were provided for the participants during the interview process. To break the ice, participants were asked to describe themselves using two words. The interviewer asked permission to voice record the interviews after they had signed their informed consent.

The private clinic room consisted of two office chairs and a table, where the interviewer and interviewee sat adjacent to each other, with the table in front of them. The researcher chose one of the rooms which were not allocated to any students in the clinic, to ensure that interviews were conducted in a quiet area. Participants were asked if they preferred their questions to be asked in IsiZulu or in English; most interviews were done in IsiZulu, as this catered for most participants who did not understand English; a few patients

preferred theirs done in English. The interview process did not take long, as most of the participants had little to say about what was being asked. Fortunately, no participants were excluded from the study due to language barrier issues. After the interview procedure, patients were allowed to ask questions about the profession or the research study.

### **3.6.2 Data Collection Tool**

This research made use of an interview guide as a data collection tool. Semi-structured interviews were best suited, as they were more conducive to allowing the participants space to narrate, and fully convey, their perceptions and experience. Interview questions were based on the research objectives and literature review as the study is exploratory in nature, each interview process took about twenty minutes after treatment. This one-on-one method was advantageous, because interviews are easily arranged and controlled, and ideas originated from a single source will ensure an easier link between concepts and individual participants (Davies 2018). One-on-one interviews were the only feasible option for this study, as participants were interviewed directly after their appointment with the Chiropractic student intern. Data was collected at the DUT CDC privately in a treatment room, with only the researcher and the participant present. Interview guides were printed out for the participants to go through, as the questions were being asked. The interview process took about twenty minutes with each participant, with questions such as their understanding of what Chiropractic treatment is (Appendix H), and their perception of it, and then thereafter if their experience with the Chiropractic intern had an impact on their perception.

Following; are some of the questions that were asked about ones' perception of Chiropractic treatment; what did you think the Chiropractic profession was when you first heard of it? What are your perceptions of Chiropractic treatment and what do you think the Chiropractor will assist you with today? How did you find out about Chiropractic? Participants were later asked questions based on their experience with the Chiropractor; what was your experience of Chiropractic treatment? How did your experience match your perception? Have your perceptions changed after the experience with the

Chiropractor, and how have they changed? These questions were open ended and participants were allowed to answer in their home languages and was later transcribed to English.

The interview questions required open- ended responses from the participants. All interviews were voice recorded; consent to record was obtained from each participant prior to commencement. The research participants were not informed of the interview questions prior to their interview. After all questions were asked, participants were given an opportunity to ask any questions pertaining to the Chiropractic profession and the treatment procedures.

To acquire an in-depth understanding of the phenomena, it was necessary that the researcher made personal contact and engaged with the participants during the data collection process. In the study, the researcher and participant sat adjacent to each other in a private quiet room at the clinic, with the researcher observing the participants as they answered, so that she could see their expressions to sense of their perceptions of the profession (Austin and Sutton 2015). In healthcare, this is generally accomplished by utilizing interviews or focus groups (Austin and Sutton 2015). Interviews (Appendix G and L) are popular as they encourage a natural form of communication between the interviewer and interviewee and hold high potential to reveal the thought processes and feelings of participants (Austin and Sutton 2015).

### **3.6.3 Data Analysis**

Data analysis is the process of reducing data to a story and interpreting it to derive insights (Austin and Sutton 2015). In simple terms, data analysis reduces chunks of data into smaller fragments which make sense (Lester 2020). There are essential aspects that need to be considered when analyzing data, such as data organization, which involves summarization and categorizing, and together contribute to a method used for data reduction (Lester 2020). This method helps in finding patterns and themes used for data identification.



Data analysis is done so that researchers have a story to tell or a problem to solve (Sutton 2015). Researchers need to remain alert and unbiased towards unexpected patterns, expressions, and results when analyzing data. One of the reasons for this is that data analysis can sometimes produce the most unforeseen stories that were not expected when data collection was initiated (Lester 2020).

In qualitative research, the process of data analysis works differently from numerical data; instead, the quality of data is made up of words, images, objects, and/or symbols (Lester 2020). Normally, word-based methods are used or relied on for data analysis in qualitative research. Keyword-in-Context is another method that is used in qualitative research, where researchers rely on the keywords used by participants when narrating or describing their stories (Austin and Sutton 2015). Other methods commonly used include content analysis, narrative analysis, discourse analysis and grounded theory.

In this study, thematic analysis was used to analyze data, which involved personal interviews that were intended to obtain answers to the research questions. The interview voice recordings were transcribed back into English from IsiZulu language and were written word for word from the recordings. This type of analysis involves participants narrating their stories using their own words, based on their personal views and past experiences.

It was important that the researcher combed through the data and interpreted it in ways that were intended for the study. The information collected from the participants should directly relate to the conclusions drawn from the study.

The raw data from the interviews, words, phrases, and sentences were extracted to make sense of the data collected, to generate codes, which is a process known as thematic analysis (Lester 2020). One of the important aspects for the study is that data is thoroughly understood, and it is presented in a way to portray it from the participants' perspective. Tesch's eight criteria were recruited in this study. Criteria as follows (Zubin 2015):

- Step 1: the researcher read the entire transcript carefully, to obtain a sense of the whole, and jotted down some ideas.
- Step 2: the researcher selected one case and asked, “what is this about?” and thought about the underlying meaning in the information. The researcher’s thoughts were written down in the margin of the transcript.
- Step 3: a list was made of all the themes or topics. Similar topics or themes were clustered together.
- Step 4: the researcher applied the list of themes or topics to the data. The themes or topics were abbreviated as codes, which were written next to the appropriate segments of the transcripts. The researcher tried out this preliminary organizing scheme to see if any new categories and codes emerged.
- Step 5: the researcher found the most descriptive wording for the themes or topics and categorized them. Lines were drawn between categories to show the relationships.
- Step 6: the researcher made a final decision on the abbreviation for each category and alphabetized the codes.
- Step 7: The data material belonging to each category was assembled and a preliminary analysis was performed.
- Step 8: the researcher recoded existing material where necessary (Zubin 2015).

### **3.7 Ethical considerations**

The principles of ethics include but are not limited to autonomy, non-maleficence, and justice. The principle of autonomy states that all individuals have a right to self-determination, beneficence ensures participant protection, and participants’ benefit from the research study (Boss 2020). Non-maleficence states that the researcher should not harm the participants, and justice comprises fairness toward participants. In this research study, all principles of ethics were upheld (Matloba 2018).

### **3.7.1 Permission**

Permission from the Institutional Research Ethics Committee (clearance number 093/22) to conduct research in the institution was obtained from the IREC committee (Appendix C), and permission to use the Chiropractic Day clinic to conduct interviews was obtained from Chiropractic head of department.

### **3.7.2 Confidentiality**

Confidentiality refers to a condition where the researcher knows the identity of a particular participant but takes steps to protect the identity of the participant from being discovered by others (Boss 2020). The data will be coded and stored at the Chiropractic program for 5 years, and the electronic data will be password protected/ stored on a USB at DUT. Thereafter, hard copies will be shredded, and electronic data will be deleted. Only the researcher and supervisors had access to the data.

### **3.7.3 Justice**

The researcher was fair and just to participants; the participants came first, before the objectives of the research study. Although compliance with this principle might sometimes prove challenging for the researcher, the researcher ensured that all groups in society, regardless of how vulnerable they might be perceived to be, were able to benefit from being involved in the research. Only indigenous Black South Africans were recruited into the study due to the nature of the research (Elo et al. 2014). All eligible potential participants had an equal chance of participating.

### **3.7.4 Autonomy**

Autonomy is the capacity to be one's own person (Matloba 2018). The participants made their own informed decision that they wanted to participate in the research study. Participants had the right to withdraw from the research study at any time with no adverse consequences. In this research study, autonomy was ensured by offering the participants the informed consent form to sign; participants participated voluntarily in the study, and

none of the participants were forced to participate. They were asked questions within their comfort parameters and were allowed to ask questions for clarity at any point.

### **3.7.5 Beneficence**

Beneficence is an obligation to provide benefits for the participants and to balance such benefits against risks (Elo et al. 2014). Beneficence requires that the researcher should do the participants no harm and should prevent harm (Elo et al. 2014). In this study participants benefited indirectly as questions they had about their confusion with the profession were answered after the interview questions. This study will also benefit in Chiropractic public education by improving clinicians' approach to indigenous Black South African patients, and Chiropractic student interns on patient interaction and education.

### **3.8.6 non-maleficence**

This principle dictates that no harm should come to research participants because of their participation in the research study. There were no risks to participants in this research. (Matloba 2018).

## **3.9 Trustworthiness**

Trustworthiness is defined as the degree of confidence in data, interpretation, and methods used to ensure the quality of data obtained (Polit and Beck 2014). It is important that the level of accuracy of findings is demonstrated to prove the level of trustworthiness of the study; this is one of the vital aspects of carrying out a study (Polit and Beck 2014). Criteria used to ensure trustworthiness are credibility, dependability, confirmability, and transferability (Polit and Beck 2014).

### **3.8.1 Credibility**

Credibility is the most important criterion; it is also known as confidence in the truth of the study (Polit and Beck 2014). In the current study, this aspect was ensured by following the standard procedures that are typically used in qualitative research studies, and justification of all variations. The technique used was auto taping and verbatim

transcription, which provided a written account of all the spoken words by participants (Polit and Beck 2014).

Interview guides, consent forms, and participant coding were developed to ensure transcription rigor in the current study, and interview recordings were directly translated from isiZulu to English (Polit and Beck 2014). A thick and vivid description was recruited in this study, which enabled the researcher to write a detailed narrative that not only highlighted the concept being studied, but also the background context of the issue under investigation (Polit and Beck 2014). Interviews were taken word for word from the participants; written words are an exact replication of the audio-recorded words; words are captured, not paraphrased; non-verbal communication was not left out (Polit and Beck 2014).

### **3.8.2 Dependability**

According to Polit and Beck (2014) this concept refers to the study's stability overtime and conditions of the study, and it is like reliability in quantitative type of research.

Maintenance of audit trails of process logs was one of the key aspects in the study, the researcher took notes of all events that occurred during the study and of all decisions taken before and during the study (whom to interview and what to observe during the interview process) (Polit and Beck 2014).

The researcher went through the interview transcripts, after all interview recordings were transcribed, looking for similarities and differences to develop themes and be able to categorize data to come up with conclusions. All documents (interview transcripts, categories, and themes) used in the study were kept reaching a conclusion.

Due to the nature of qualitative research, it often results in an ever-changing research setting and changing contexts; the researcher will document all aspects of any changes or unexpected occurrences to further explain the findings. This is also important for other researchers who may want to replicate the study (Polit and Beck 2014).

### **3.8.3 Transferability**

The study's findings will be applicable to other similar contexts as well; thick descriptions were recruited to ensure the integrity of this concept (Polit and Beck 2014). Thick description provided background data necessary to understand the relevance, meaning, and intentions of the study and build up a clear picture of the individual or groups in their context (Polit and Beck 2014). Data saturation refers to a point where, during data collection, no new information is discovered; it is a point of redundancy that signals that collection may cease (Elo et al. 2014). This means that a researcher has collected enough data to fulfil the purposes of the study, and further collection would yield similar results (Elo et al. 2014).

### **3.8.4 Confirmability**

Findings from the current study are consistent with those from previous perception studies and could be repeated for similar findings (Polit and Beck 2014). Findings are only based on participants' responses and not the researcher's bias or researcher's personal motivation. Documents were carefully kept throughout the process of data collection, so that the researcher could re-check data throughout the study (Elo et al. 2014). Inquiry audit was ensured by having the researchers' supervisors check every process of data collection and analysis before the processes were started; this was done to confirm the accuracy of the findings and ensure that findings are supported by the data collected (Elo et al. 2014).

### **3.9 Conclusion**

This chapter outlined the qualitative exploratory descriptive design which was applied. The type of sampling that was used was convenience sampling, which helped the researcher recruit indigenous Black South Africans presenting to the DUT CDC for the first time. The process of data collection, which took place at the DUT CDC, contained the fourteen interviews of these participants, none of the participants withdrew from the

study. To outline the procedure that was followed, data analysis was discussed in this chapter.

Following is chapter four, which will discuss the results from the fourteen semi-structured interviews.

## CHAPTER FOUR: RESULTS

### 4.1 Introduction

In this chapter, the results from the fourteen semi-structured interviews from the indigenous Black South Africans, who were attending a chiropractic clinic for the first time, are discussed. The interviews were voice recorded, verbatim transcribed, and analyzed thoroughly, this process was performed by the researcher to ensure that effort was made to present all the information in a way intended by the participants. The process of data analysis gave rise to three main domains, various themes and subthemes which will give the reader an insight into the perceptions and experiences of indigenous Black South Africans coming to the Chiropractic clinic for the first time.

The table below presents various demographic characteristics of the participants of the study.

**Table 4.1 Participant demographic characteristics:**

<b>Patient Code</b>	<b>Age</b>	<b>Occupation</b>	<b>Gender</b>
PTI	19	Rugby Player	Female
PTII	21	Accounting Student	Female
PTIII	41	Manufacturing Firm	Male
PTIV	19	Student/Rugby Player	Female
PTV	65	Pensioner	Female



PTVI	39	Medical representative	Female
PTVII	25	Arts and Designer	Male
PTVIII	70	Plumber	Male
PTIX	41	Events planning	Male
PTX	22	Accounting Student/Administration	Female
PTXI	23	Administration Intern	Male
PTXII	30	Insurance Intern	Male
PTXIII	36	Human Resources	Female
PTXIV	26	Retail Assistant	Female

Each interview process took place after each participant consultation with the Chiropractic student intern. Participants were interviewed in isiZulu and English, and thereafter the voice recordings were translated into English.

Each interview process was conducted privately in IsiZulu; this was done to allow the participants to express themselves freely as all the participants were Zulu speaking individuals; the participants were however allowed to answer in English should they feel more comfortable in doing so.

## Themes and Subthemes

For the current study, data was collected using semi-structured interviews from fourteen participants. Data analysis was done according to three domains as they related to the research questions. Thematic analysis was done which revealed numerous themes and subthemes as discussed below in the table.

Domain	Theme	Sub-theme
Perceptions	1. Poor understanding of the Chiropractic profession	<ul style="list-style-type: none"><li>• Lack of understanding of Chiropractic/confusion with other health professions versus full awareness of the profession.</li><li>• Allopathic care versus alternative medicine.</li><li>• Chiropractic care into the healthcare system.</li></ul>
	2. Introduction to the Chiropractic profession.	<ul style="list-style-type: none"><li>• Introduction by friends, family, colleagues, and family.</li><li>• Introduction through media sources</li></ul>
Experiences	1. Expectation and experience of the Chiropractic treatment.	<ul style="list-style-type: none"><li>• Treatment outcomes.</li><li>• Change of perception after the experience with the Chiropractic intern.</li><li>• Chiropractic treatment</li><li>• No prescription or medicine.</li></ul>
Experiences Vs Perceptions	1. Overall experience reflection based on perception	<ul style="list-style-type: none"><li>• Information availability to the public.</li><li>• Chiropractic treatment effectiveness.</li><li>• Effect of the experience on the patients' perceptions.</li></ul>

### 4.2 Domain one: Perceptions

#### 4.2.1 Theme one: Poor understanding of the Chiropractic profession

The fourteen participants were asked to describe their basic understanding of what Chiropractic is as a profession and to explain how they were introduced to Chiropractic. More than two thirds of the participant group had very little to no information of what the profession is; some were confused as they really did not have any idea about the question

but tried to make sense of what it was. Below are some of the answers from the participants when they were asked:

**a. Subtheme one: Lack of understanding of what Chiropractic is and confusion with other healthcare professions, versus full awareness of the profession.**

*“I have never been exposed to Chiropractic before, and to be honest with you I don’t know what Chiropractic is hahahaha (laughed) no idea, so I had no perceptions.” (PTVII)*

*“I also expected that I’m going to see a Dr uhm maybe someone that would tell me about medication you know, like a prescription you, see?” (PTII)*

*“I don’t know anything about Chiro. I’m from PMB I’m doing my Masters here. My boss I know he normally goes for Chiro what.... what because I don’t know... muscles what... what. All I knew was a Chiro is someone who clicks people’s bones and that’s that. Like what we see on YouTube, like (makes clicking sounds).” (PTVII)*

*“I expected that you would inject me but I feel better, or I’ll get pills because that’s how we survive the pain” (PTVIII)*

Two participants confused the profession with other health professions:

*“you guys are similar to somatology, a bit different but similar.” (PTII)*

*“I expected that you would inject”. (PTIV)*

Only three participants showed confidence in knowing what the profession is, as seen below:

*“Uhm I’d say Chiro is non-invasive uhm, its finding ways of hmm, I can’t think of an easy way to explain, finding the problem ya, pin-pointing the problem that’s resulting to pain using non- invasive ways and to relieve that thing uhm yah.” (PTVI)*

*“Well, I didn’t know about cracking bones I just knew that it’s something to do with muscle or uhm joint injuries uhm ya let’s just call it that.” (PTIX)*

*“Uhm my perception of a Chiro is somebody who uses their knowledge I guess of the bones and muscles within the whole body to make sure uhm...that everything is in place or in proper order. Well, that’s my understanding, alignment?” (PTVI)*

## **b. Subtheme two: Allopathic care versus alternative medicine**

Out of the fourteen participants interviewed for the study, less than half were aware of alternative medicine approaches. All participants interviewed were aware of mainstream medicine approaches. However, when interviewed, participants were not aware that conventional medicine is also referred to as allopathic care; hence most of the participants denied knowing about this type of medical approach, as illustrated by the following quote:

*“I expected that you would inject me but I feel better, or I’ll get pills because that’s how we survive the pain.” (PTV).*

Participant one recalled seeing the term “allopathic” on the internet when she was reading about Chiropractic, although she did not recall being asked about this term when she came for her Chiropractic admission interview.

*“No I have never heard that term, I have no clue, why?” (PTIV)*

*“No I have actually never heard about that term, allopathic (mispronounces and laughs) I remember them asking me I think during my interview and I had no idea.” (PTI)*

*“Allopathy? No. That sounds deep (laughs).” (PTXII)*

*“Allopathic care, no sis, I have never heard of that term, I saw it online when I was reading about Chiropractic.” (PTXIV)*

*“I definitely wouldn’t know those terms since I didn’t even know about the profession hahaha; no offense but I don’t know.” (PTIV)*

### **c. Subtheme three: Chiropractic in the healthcare system**

Most of the patients had an idea of how the profession fits into the healthcare system, since it functions to treat musculoskeletal disorders, which is part of the healthcare system. Some participants got confused by the question of which. When the researcher explained, they could then make sense of how it fits. A minority of the participants did not know at all how the profession fits into the healthcare system as they did not even know what the profession is to begin with.

*“With Chiropractic fitting into the healthcare system, I don’t know, I have no idea, no idea (shakes their head), but isn’t you guys help people heal?” (PTIV)*

*“Eh I don’t know but it fits, it fits perfectly haha, it does make one relax, like now, you can see yah.” (PTX)*

*“I would say you guys fit but I don’t know, I don’t know how am I going to put it, but you see if one suffers from joint pains that is something that falls under health.” (PTXII)*

*“You guys fit, you work with different injuries - surely that should be under healthcare?”(PTXIII)*

*“You guys specialize in something, than medical doctors; you are also doctors but for spine. You also don’t use medicine.” (PTII)*

*“I guess then especially someone who has been injured uhm let’s say I got into an accident and I don’t know how much am I injured in the spine uh the after effects also, or maybe I have suffered from a stroke, so you’d check if there’s a way you can help me so I can be able to walk again, rehab for someone.” (PTXIII)*

The majority of participants continued to say they have an idea of how the Chiropractic profession fits into the healthcare system; it is just that they cannot explain how it fits in

simple terms. Fewer than five participants said that they did not know how a Chiropractor fits into the healthcare system.

*“I don’t have much knowledge; I don’t know how you guys fit.” (PTIV)*

*“I don’t know how you guys fit into the healthcare system, at the moment ya I don’t know, it’s not something that I have actually thought about until you ask me, but like now haha, so I’m not sure.” (PTXII)*

The second theme which emerged from the first domain which shows results of how participants were introduced to the profession, this second theme consisted of two subthemes.

#### **4.2.2 Theme two: Introduction to Chiropractic**

##### **a. Subtheme one: Referrals through friends, colleagues or family.**

Most of the participants, when asked how they found out about chiropractic, mentioned that they were referred to by friends, colleagues, or family members, who had previously been to the chiropractic clinic for treatment. These participants had little information about what was to transpire, as they did not ask as many questions from their referrer, but they hoped to get help from the clinic for their complaints. One of the participants even confused the profession with general medicine, and they expected they would be given an injection for pain. Below are some of the answers from the participants:

*“I heard from my coach about you guys, about Chiro, I did not read anywhere.” (PTII)*

*“I heard from my sister who has been here.” (PTIII)*

*“My coach referred me here after eh a rugby injury.” (PTIV)*

*“My grandchild is a doctor here - they studied here. When they explained to me, they said I should come to the Dr for bones because it’s where I will get help,*

*because I suffer from lower back pain. I expected that you would inject me, but I feel better, or I'll get pills because that's how we survive the pain.” (PTV)*

*“Uhm Chiro I just know about it from a friend then it is just general knowledge. But here I found out from a guy that I jog with.” (PTIX)*

*“The first time I heard about it was from my girlfriend, yah she heard about from someone else, her friend who had been here for treatment, yah but my girl has never been to the clinic before.” (PTXII)*

## **b. Subtheme two: Introduction through media**

Only three of the participants described finding out about Chiropractic from their own Internet research and were well informed of what they were coming for. These participants had known about Chiropractic for some time before coming for the appointment at the clinic.

*“I got it through the internet; I was looking at the internet, checking for things related to scoliosis then I got this guy for Chiro fixing it, straightening the spine of someone then yah. Uhm, they stretch, they deal with joint pains; they're different from medical doctors where everything is treated by medicine. They know how to correct scoliosis, because it does not completely go away” (PTXIV).*

*“I saw a sign here at Ritson campus, but I had never been to a Chiro, but I had been wanting and looking for a Chiro because of my back pain” (PTX).*

## **4.3 Domain two: Experience**

### **4.2.1 Theme one of the second domain with subthemes: expectations and experience of the Chiropractic treatment**

One of the common expectations of chiropractic from the fourteen participants was that they all expected to get assisted with their ailments from the Chiropractic student intern, although the majority did not have much information but had faith that whoever they were seeing would be able to assist them.

#### **a. Subtheme one: Treatment outcome**

Interviews were all conducted after the participants had finished with their treatment, so that they would be able to reflect on their first experience with the Chiropractor. It was noted in this study that all participants had positive feedback on their experience with the Chiropractor. Most participants mentioned that they did not expect to feel instantly better after the appointment; some were amazed by how the Chiropractic treatment procedure works; none of the research participants had negative feedback.

*“It was very different from what I expected because I got to use, what that thing? (Points at the ultrasound room) uhm ultra what? Ultrasound yes, it was very interesting especially you were explaining every process and now I understand everything about my injury, or and yes, you did not pop my knee, so that’s that... (Laughs)” (PTXIV)*

*“I didn’t have any expectations; I just needed help to be honest, so I didn’t expect anything much; I thought you’d stretch me and then also check how severe is my condition you see, that’s all I expected” (PTXIV)*

*“Everything went well with the Dr because now I feel better” (PTVII).*

*“Uhm my experience, I feel lighter afterwards and I am happy that I discovered that the pain from here is not really coming from here; it was coming from elsewhere, so that was very interesting.” (PTIX)*

*“I feel so much relief; it feels something has been taken off my shoulders; there’s a lot that happened that I didn’t think you guys do, a lot more happened.” (PTX)*

*“My experience yoh, it was...it was I think it exceeded my expectations honestly, I got educated today not a little; I did not expect to be given stretches too - that definitely gave you guys a bonus point.” (PTXII)*



## **b. Subtheme two: Change of perception after the experience**

Most of the participants did not have a change of perception after the experience. However, they highlighted that they were more informed about Chiropractic than before they came in; they mentioned having received more information about the Chiropractic profession.

*“Now I know better than when I came here” (PTI).*

*“I discovered new things, like I didn’t know anything, and I got help; things that I did not expect, like I didn’t know that I was going to be stretched, and for my bones to pop like that, I really did not expect.” (PTVII)*

*“Uhm my experience: I feel lighter afterwards, and I am happy that I discovered that the pain from here is not really coming from here; it was coming from elsewhere so that was very interesting.” (PTIX)*

*“What can I say! It is not, uhm, it’s beyond what I expected/ what I thought Chiropractic was.”(PTVI)*

*“Yah my experience and my prior perceptions matched. I have been researching; when I came here I knew because uh he asked me a lot of things, and he discovered a lot of things, and explained how the body functions. So...he’d explain everything as he was treating, and now I am more informed than I was when I came. My body feels lighter, and I feel less pain.” (PTXIV)*

*“It wasn’t what I expected, uhm, it surely would make me want to come back purely for the reason that it’s not what I thought it was”. (PTXIII)*

## **c. Subtheme three: Chiropractic treatment modalities**

As stated above, few participants had adequate knowledge about the profession, and participant perceptions differed when it came to what was about to transpire during the

treatment procedure. One participant mentioned that he did not expect the stretches that he got during his treatment procedure.

*“I did not expect to be given stretches too; that definitely gave you guys a bonus point.”*

*(PTXII)*

Most participants were unfamiliar with adjustments, how they are performed, and whether they would cause discomfort or not. One participant even mentioned that he was scared because of what he normally sees on YouTube when people are performing adjustments, and that they seem uncomfortable and painful.

*“I mean where these bones are cracking, and I think that’s why there was a bit of tension from me initially because I thought it would be uncomfortable.” (PTVI)*

*“All I knew was a Chiro is someone who clicks people’s bones and that’s that. Like what we see on You Tube, like (makes clicking sounds).” (PTVII)*

*“Ya, I expected something else, and he has already cracked my bones and told me something I didn’t know and that I never thought about, and he checked a lot of things I didn’t think they would bother to with me, and that you need to check them at the Chiro.” (PTVII)*

One participant mentioned that she did expect the stretches because she had already done her research on Chiropractic, and, with her condition, she knew what to expect from the Chiropractor.

*“I thought you’d stretch me and then also check how severe is my condition you see.” (PTXIV)*

One participant highlighted that his perceptions had not changed after the treatment, with regards to how the treatment would go; all that he expected was indeed what happened during his treatment procedure.

*“What I had perceived happened; the same thing, so nothing much has changed.”  
(PTX)*

The majority of the participants referred to manipulation as bone cracking or popping, as they were unfamiliar with the „manipulation“ or „alignment“ term.

*“I thought you were gonna pop my knee because I have seen videos of you guys doing it there on YouTube.” (PTI)*

*“...there’s a way that he does it and then it pops hahaha yes he pops my bones.”  
(PTII)*

*“I mean, where are these bones cracking?” (PTVI)*

*“He did do a few with my back, and it was not painful; it’s just that popping sound, like when people pop their hands. It helped relieve the pain.” (PTVII)*

*“Well, I didn’t know about cracking bones. I just knew that it’s something to do with muscle or uhm joint injuries.” (PTIX)*

*“I thought you’d get on top of me and pull me; on my spine and break it; break it.”  
(PTXIII)*

#### **d. Subtheme four: Prescription or medicine**

As seen in subtheme four under theme one, none of the participants had knowledge about allopathic care; only two had heard of the term before, and one participant expected that she would get medication for her lower back pain.

*“.... I’ll get pills because that’s how we survive the pain.” (PTV)*

The majority of the participants knew that Chiropractors do not offer medication, although some would guess it, but they did have an idea.

*“Chiro from general medicine, like normal doctors (Laughs) I think you guys don’t offer pills, haha.” (PI)*

*“You don’t offer medication, even though I am not sure exactly, but you guys do help.” (PTII)*

*“Uhm, I think we are taking a lot of medication already, we are supplementing uhm we are doing this and that; if you have pain, they give you tablets, literally, if you complain of anything - pills. So, if there are ways to treat, so why not and finding where the problem is because the spine carries a lot, the whole of our bodies, and if mobilizing it helps, then that’s the way.” (PTVI)*

*“Uhm- from the normal Doctor... The GP uh I wouldn’t know how. Do you guys treat flu?”*

*(PTVII)*

*“They are different from medical doctors, where everything is treated by medicine.”  
(PTIII)*

### **4.3 Domain three: Participants’ perceptions versus experience**

The third domain revealed the results of all the participants’ reflection on their experience with the Chiropractic intern; patient satisfaction, and if the expectations were met from the last domain.

#### **4.3.1 Theme one: Overall experience**

On the second session of the interview process, participants were asked to describe their first experience of Chiropractic, and whether they would return and recommend Chiropractic to others. This section gave very good feedback on the effectiveness of Chiropractic treatment on neuro-musculoskeletal disorders, as all participants had positive feedback on their treatment. Only one participant could not get to the second section of the interview, as he started having seizures halfway through the interview

(PTXI). Participants had no complaints, nor noticed any loopholes with regards to Chiropractic as a whole. Some participants felt that not enough awareness is created, especially in the Black communities, as most Black people are used to taking medication for their illnesses.

Coming for Chiropractic treatment enlightened most of these participants, as they would mention that after their appointments, they knew more than they did when they initially came. Those that did not know about it were also satisfied with the treatment procedure, and felt it was effective to their complaints. The majority of the participants were happy with the fact that interns were explaining every procedure that they performed in detail and that interns were also thorough and were allowed to ask questions during the consultation time. This not only changed the way they felt after their treatment, but they were also taught ways in which they can prevent injuries, and how they can improve their health.

**a. Subtheme one: Information availability to the public**

Most of the research participants had not been for Chiropractic treatment, purely because they did not know about it and its existence. For some participants, even when they found out about it, not much information was given to them as to what it was. When the research study was being conducted, participants asked a lot of questions about the profession itself; years of study; what one needs to qualify to study for it, and chances of employment. The participants showed much interest when these questions were answered, as they felt it is a good course and it would help limit the use of medicine as some of the adverse effects are severe and irreversible. It was noted also from the participants' response that, as much as awareness is being done by the institution around the whole Kwa-Zulu Natal province about the Chiropractic profession, none of the research participants were introduced to Chiropractic from these awareness programs that are being conducted, which highlights a gap for more awareness to still be done.

*"I think most people are not aware since we don't have Chiropractors in hospitals. Hence, we confuse it with physiotherapy" (PTI).*

*“To be honest, as much as you say you guys have awareness programs, but I haven’t come across any, so if it wasn’t for mom then I wouldn’t know about this” (PTXIII).*

*“Imagine for someone with no internet access in rural areas; I doubt they would know about this course” (PTXIV).*

#### **b. Subtheme two: Chiropractic treatment effectiveness**

Thirteen participants were happy with the overall treatment of Chiropractic, as all mentioned instant pain relief and said that the experience exceeded their overall expectations. The remaining participant did not receive Chiropractic treatment, as he was referred for his condition.

*“This works; compared to medicine I would definitely choose this route; medicine has so many side effects...” (PTVII).*

*“It feels like a weight has been lifted off my shoulders; my body feels new” (PTX).*

*“It is amazing how one click can automatically fix everything. I did not expect immediate pain relief” (PTXI).*

#### **c. Subtheme three: Effect of the experience on their perceptions**

About three participants developed good perceptions of Chiropractic, as they had none when they came in as they did not know about the profession.

*“My experience was perfect! I didn’t, I didn’t have any expectations. I just needed help to be honest, so I didn’t expect anything much” (PTXIV).*

*“It wasn’t what I expected uhm it surely would make me want to come back purely because it’s not what I thought it was. (PTXIII)I learnt more after I saw the Dr, now I know better” (PTV).*

This chapter provides results of the current research study in a form of three domains. Thematic analysis was used to analyze data. Different themes with subsequent subthemes will further be discussed in chapter five, in the form of objectives, to answer the main research questions of this study.

## **CHAPTER 5: DISCUSSION**

### **5.1 Introduction**

The purpose of this chapter is to discuss the results presented in the previous chapters in the light of literature. Participants' responses relating to their first-time perceptions and experiences of Chiropractic treatment will be explored in detail. The demographic characteristics of the Black South African indigenous participants will also be discussed. This chapter will go in depth into the themes and subthemes highlighted in the previous chapter.

### **5.2 Demographic characteristics**

#### **5.2.1. General overview**

In this research study, only participants who were eighteen and above were included, and they all gave full consent for them to participate in the study. The ages ranged from nineteen, as the youngest participant, to seventy, as the oldest, with most of the participants being between the ages of thirty and forty-five years old. The age groups presented in chapter three were compared to those of the current study participants to ensure that all criteria are followed. The South African legal framework requires mandatory legal or parental guardian consent for all forms of health research involving persons under the ages of eighteen (Mika, Nguyen and Ninh 2020). According to Brown and Patel (2017) extremity joint injuries are more prevalent in young athletes, with knee injuries being more common in rugby players. They stated factors such as repetitive overuse of these small joints, acute macro-trauma, and time loss from practice or the game to be associated, which is why medical attention would be required (Brown and Patel 2017). Three participants from the study presented knee complaints to a Chiropractor because of sport injury - two rugby players and one soccer player.

In this study, most of the participants were office workers, predominantly females, presenting with back pain. Lower back pain is identified to be common in office workers and is known to be the most common cause of work-related disability in people under the age of forty-five, which is one of the factors why the selected demographic is likely to visit



a Chiropractor (Janwantanakul *et al.* 2016). Factors associated were identified to be female gender, pregnancy, smoking, lack of sleep, stress, prolonged driving, exposure to hostile work, work-family imbalance, and computer usage for long in awkward postures (Baker *et al.* 2016).

One- third of the participants in the current study were over the ages of sixty, and according to the literature, as one ages, the cartilage in the joints fades away due to water loss, lack of blood flow, and reduced movement in the joints, and this leads to musculoskeletal pain which will cause one to present to a Chiropractor in their late ages (Karppinen, Samartzis and Wong 2017). Lower back pain is one of the major disabling health conditions in patients over the ages of sixty. Compared to working adults, older adults are more likely to develop back pain due to factors like; lumbar spinal stenosis, osteoporosis, tumors, spinal degeneration, physical inactivity, mental conditions, and age-related central pain processing (Karppinen, Samartzis, and Wong 2017). Two of the fourteen participants were over sixty years old, and one had come for backache.

### **5.2.2 Gender**

It was noted from the current study participants that there were more females than males, which is comparable with other studies which also showed females dominating the Chiropractic patient population within and outside of South Africa (Lehohla 2015). The above statement about females seeking Chiropractic more than males was further supported in that females go through hormonal changes, pregnancy, physical stress of childbearing, peri-menopausal abdominal weight gain, and increase in breast size, which will cause these individuals to suffer from musculoskeletal complaints and thus would most likely seek Chiropractic care in their reproductive years (Baker *et al.* 2016).

### **5.2.3 Occupation**

The occupations of the fourteen participants, who were interviewed in the current study, ranged from one participant being an unemployed individual; one on a government pension grant/housewife; two students, and eleven professionals, made up of office

workers. In chapter two it was evident from the previous studies that it is mostly unemployed individuals from rural areas or underdeveloped cities who lack knowledge about Chiropractic, which might be supported by the participant demographic in this study, where most of the participants were professionals from urban areas. The majority of the study's participants are from urban areas, which still shows that more awareness about the profession needs to be done in the current study race group.

The occupations of the current study participants differed from the South African population, as the latter exhibits professionals as the minority, and elementary occupations form the majority (Lehohla 2015). These results differed slightly from the patients of the DUT CDC, as professionals were more prevalent in the current study sample, and professions were not well represented, as was determined for the DUT CDC patients (Twiggs 2017). However, as it has been determined in the previous statements, the professions presented are most likely to visit a Chiropractor due to the prevalence of musculoskeletal conditions in certain professions than in others, for example the office worker and athletes (Lehohla 2015).

### **5.3 Black South Africans' Perceptions and knowledge of Chiropractic**

The responses from the fourteen participants indicated that there was a lack of knowledge about the Chiropractic profession. A few participants associated the profession with the medical profession, somatology, and physiotherapy. Two had difficulty differentiating Chiropractic from general medicine, as they had expectations that they would receive medication and an injection for their complaints. According to literature, medical doctors use drugs in the prevention or treatment of a disease; they treat all types of disorders using medicine or surgery (HPCSA 2020). The confusion may lie in the fact that both, when qualified, are referred to as doctors.

According to Bezuidenhout, Henrico and Maritz (2018) somatology is a branch of biology concerned with the structure and functioning of the body; they practice in product use, aesthetic improvement, and general wellness of a human being. Physiotherapy and somatology being confused with the Chiropractic profession might be since all three

professions deal with post-surgery rehabilitation and muscle issues. Both physiotherapy and Chiropractic use manual therapy to treat certain conditions; both focus on wellness plans for their patients beyond what they can do during a session with a patient, and both are licensed health professionals with years of education and training (Bismark and Ryan, 2022).

The limited awareness amongst participants in this research was due more to the lack of exposure to the profession than financial barriers, because most of the participants were employed individuals and had access to general health care. The responses of the participants from the current study were like those by Robbertze (2018), a study where most of the participants highlighted lack of exposure to the profession as one of the key factors why they had never been to a Chiropractor.

The fourteen participants that were interviewed by Robbertze (2018) also had difficulty differentiating Chiropractic from other healthcare professions, particularly Chiropody and Physiotherapy, this can be compared to the results from the current study as there were participants that associated Chiropractic with Physiotherapy. The responses from the current study's participants were also like those of Wilson, Swincer and Vemulpad (2017) where his participants highlighted the lack of education and exposure to Chiropractic as also one of the factors for them not to visit a Chiropractor (Wilson, Swincer and Vemulpad 2017).

Chiropractic can be distinguished from other alternative medicine modalities, as it is a system of alternative and complementary medicine based on a diagnosis and manipulative treatment of misalignment of the joints, especially those of the spine, as they are believed to cause other disorders affecting the neuro-musculoskeletal system and general organs (Heshemi *et al.* 2015). Participants in the current study had a variety of understandings of Chiropractic, such as a specialization in the diagnosis of the patient, and some associated it with the treatment of joint disorders and muscles, which showed an understanding of this specialization.

The definition of Chiropractic and its training, states that Chiropractors are not medical doctors but, after their education and training, they graduate with a Masters' degree, as they undergo extensive training in Chiropractic care and become licensed practitioners, which then allows them to diagnose and specialize in the treatment of neuro-musculoskeletal complaints (Heshemi *et al.* 2015). One of the fourteen participants interviewed associated Chiropractors as joint disorder specialists, which showed an understanding of the profession. Overall, participants showed limited understanding of the profession, which is worrisome for the general utilization of Chiropractic procedures, as it is known that the deficit of knowledge in specific population groups pertaining to CAM therapies negatively affects the utilization of these professions.

Most of the participants were referred to the clinic by friends, family or colleagues who had been to a Chiropractor before and experienced the benefits of Chiropractic treatment. Only two found out about Chiropractic through media sources. This can be compared with the results from Brown *et al.* (2014) where they highlighted that referral by others was the most influential factor for the participants to seek Chiropractic care. Word- of-mouth held high credibility in the current study's referrals, as most of these participants did not enquire much when they were being referred but mentioned that they trusted the judgement of those who were referring them. These verbal communications play a very important role in the spread of awareness about Chiropractic across different populations.

Two participants found out about the profession via the internet, which is deemed very common lately as the world seems to be dominated by media sources in terms of relaying messages across. This was like the study of Robbertze (2018) as participants in her study also mentioned media as one of the sources. It must also be taken into consideration that Chiropractic is excluded from the public health care system, resulting in limited awareness and utilization of the profession, as most of the public is still confined to conventional medicine.

The results of the current study, regarding the limited awareness of the interventions of Chiropractic treatment, are comparable to those of Cross *et al.* (2015) who conducted a study in the UK osteopathic practice about the interventions of osteopathy where most of

his participants were unaware of these interventions, which also include manipulative procedures. In the current study, when participants were asked to describe their understanding of an adjustment, results showed a lack of understanding surrounding this type of technique. Eleven participants from the study further clarified that they had never heard of the term “manipulation” or “adjustment” in relation to Chiropractic. One participant had heard of the term but was not sure of the exact meaning, and two participants had seen the term on the internet but had no definition of the term.

Allopathic medicine is commonly known as mainstream, conventional, western or orthodox medicine. Treatment is done with medication, surgery or radiation (Van Rooyen 2015). However, alternative medicine uses non-mainstream approaches only, such as Chinese medicine, acupuncture, adjustments, massage and so forth (Blum 2018). From this study, it can be concluded that most of the participants had no knowledge of the different types of alternative medicine and their indications; however, they were all aware of mainstream medicine. This is comparable to Robbertze (2018) findings which also reported most participants had no knowledge of alternative medicine approaches. These findings are like those of Wilson, Swincer and Vemulpad (2017) who reported that the Australian participants had more knowledge of orthodox medicine than alternative medicine. Two of the participants in the current study mentioned having seen the word „allopathy“ prior to the interviews, but both had no understanding of the term.

Chiropractic is a licensed healthcare profession that emphasizes the body’s ability to heal itself without the use of medicine. Treatment modalities include, but are not limited to manual therapy, typically involving spinal manipulation; and other forms of treatment include exercise programs and nutritional counselling for the patients (Jarvis 2020). The healthcare system consists of four key participants, known as the four P’s, which are the patients, providers (professionals and institutions), payers, and policy makers (health regulatory boards), which qualify a profession into the healthcare system (Jarvis 2020). The American Chiropractic Association statement defines a Chiropractor as a primary healthcare provider - a first contact gatekeeper for neuro-musculoskeletal system

conditions, characterized by direct access and integrated conservative care of patients” healthcare needs (Ismail 2021).

Three-thirds of the research participants mentioned that they had an idea of how the profession fits into the healthcare system. Some of these participants referred to Chiropractors as joint specialists. These results can be comparable to the definition by Heshemi et al. (2015) of Chiropractic, where he referred to Chiropractors as joint specialists that offer physical therapy for treatment of joint-related disorders.

Literature has shown that Chiropractors would want to be part of mainstream medicine, and involve themselves in the process of healthcare transformation, even though some may characterize that as a loss of autonomy, but it would help in growing the profession (Brown 2012). Chiropractors of all philosophies must recognize the importance of integration and a multidisciplinary approach to treating patients, for better patient management and inter-profession referrals (Brown et al. 2014b). This can be comparable to the current study, as one participant mentioned that the presence of Chiropractors in the public sector and in hospitals would enhance awareness about the profession.

Brown et al. (2014b) reported only 44% of those sampled, in their study, chose Chiropractic to be their first choice of treatment for their health conditions. It was stated that population receptivity toward Chiropractors as primary healthcare providers may greatly improve if diagnostic tools are utilized and if diagnostic ability is displayed in practice (Brown et al. 2014b). About one-third of the population felt that Chiropractic was an alternative to medication and surgery. The results from the current study are comparable to the study by Brown et al. (2014b) as most of the participants from the current study do not consider Chiropractic as their first choice of treatment, but rather as an alternative.

The use of Chiropractic terminology by an interviewer during the interviews indicated that there is a lack of understanding of the profession. Further, three participants when asked to describe Chiropractic, described the profession as a profession that breaks peoples’ bones to fix them; seven of the fourteen participants were not aware that Chiropractic

procedure involves manipulating the bones into place. The use of the term bone cracking indicated that correct term use does not necessarily reflect complete understanding.

#### **5.4 Black South Africans' experiences at the DUT Chiropractic Day Clinic**

Experience was informed by knowledge and exposure to alternative medicine treatments, and through the positive experience with the Chiropractic intern, which changed the participants' perception of Chiropractic as they were now more informed about the profession. It was noted that exposure to alternative medicine in this population group is minimal; most participants from this group could not differentiate between conventional and alternative medicine. It was also noted that more than two-thirds of the participants had no knowledge about the profession and were used to conventional medicine. One of the participants in the current study confused Chiropractic with somatology, which is supported by results from Wilson, Swincer and Vemulpad (2017) research study, who reported more understanding of massage therapy than an adjustment by the participants.

Two research participants from the current study mentioned that Chiropractors are responsible for the rehabilitation of patients after surgery. One participant also mentioned that Chiropractic treatment not only looks at the symptoms that the patient presents with, but rather looks at the patient holistically, and treats the root cause of the problem causing the symptoms. This thought is supported by Heshemi et al. (2015) who defined Chiropractic treatment as entailing treating an individual in a holistic manner.

When participants were asked to list the conditions that Chiropractors are known to treat, only joint conditions were listed, which was contrary to findings reported by Wilson, Swincer and Vemulpad (2017), where participants mentioned conditions not limited to: sports injuries, neuromuscular, headaches, arthritis, slipped disc and general spinal injuries. This highlighted a gap that needs to be filled in educating this group of people about the indications for Chiropractic.

Hawk (2017) mentioned that there is a lack of evidence to support Chiropractic treatment being effective in the treatment of non-neuro-muscular disorders. However, there are still Chiropractors who believe in treating those disorders by the removal of joint subluxation. None of the participants in the current study spoke about any non-neuro-muscular diseases to be included in the Chiropractic scope of practice, except that one participant believed a Chiropractor to be a general bone doctor.

The literature provided in the previous chapters, referred to general bone doctors, which included Sangomas, commonly known as traditional healers. This was not incomparable with the results obtained from the current study, as none of the participants confused Chiropractors with traditional healers; instead, participants had full knowledge of the scope of practice of traditional healers. Participants from the current study further mentioned that traditional healers throw bones to diagnose an individual, and that the concept of them being referred to as traditional doctors is derived from the use of different animal bones, when diagnosing, to connect with ones' spiritual ancestors.

The results from the current study are incomparable in that a traditional healer is a practitioner of Ngoma, with a philosophy of ancestral healing through spirituality. None of the research participants related a Chiropractor to a sangoma, as all participants were African and had full knowledge of all the different practices of traditional healers. Chiropractic philosophy allows the body to find balance in all its systems naturally, which enables all these systems to work together for healing (Brown et al. 2014a). Chiropractic philosophy states that a proper structure is vital for proper body healing, hence if one body structure is impaired by injury or stress, general body function will be adversely affected (Brown et al. 2014a).

When participants were asked to describe their experience with the Chiropractic student intern, and comment if their perceptions have changed after the treatment, it was proven that there was a lack of perception of Chiropractic initially, as one-third of the current study research participants had no perceptions or expectations at all. According to Davies (2018) the perception that Chiropractors are doctors of the back or spine, may lead to an



assumption in many that Chiropractors lack expertise in the treatment of extremity joints and other peripheral conditions.

The results from the current study were comparable to the perceptions study conducted by MacPherson et al. (2015) as the current study's participants had no further knowledge of what are the other manual therapies and modalities that Chiropractic consists of; 58% of their research participants, as determined by him, had no knowledge of what the Chiropractic treatment was and the benefits of receiving Chiropractic treatment.

All fourteen participants, when asked about their reason for visiting a Chiropractor, stated that they came for various conditions, but with one common factor, which was pain that they were experiencing. The current study's results were like those of Brown et al. (2014b) who conducted a perceptions study in the United Kingdom and indicated that all participants who took part in his study were experiencing pain when presenting to the Chiropractor.

The current study's results cannot be compared to those of Robbertze (2018) as the research participants in the study had little to no knowledge with regards to the benefits of Chiropractic treatment, and only about three participants associated it with exercise and rehabilitation therapy, with the use of the term "bone breaking" when referring to an adjustment. As previously discussed in this chapter, the use of this term can negatively affect the profession's image, as it can mean bone fracture or pain to others when used.

The current study's results regarding the correct term used when referring to Chiropractic treatment modalities cannot be compared to those of Robbertze (2018) as there was a lack of correct term use; none of the participants from the current study used terms such as adjustments, manipulation, dry needling, ultrasound and so forth, when referring to different chiropractic modalities; whereas it was noted that in Robbertze (2018) reported a generally good understanding of Chiropractic modalities, referring to an adjustment of joints as the main Chiropractic modality. About two-thirds only of her research participants failed to discuss an adjustment, as it is the main modality used by Chiropractors.

According to Heshemi et al. (2015) an adjustment is defined as a procedure, in which Chiropractors use their hands or a small instrument to apply a controlled small force to a joint, to restore the joint's normal range of motion and physical motion. It is further stated that these small joint thrust releases nitrogen bubbles to increase blood flow to the joint to reduce pain (Heshemi et al. 2015). The intervertebral disc is a known pain- generating factor and is generally the focus for spinal adjustment therapy; however, extremity joints can also be adjusted (Heshemi et al. 2015).

As discussed in chapter two by Woggon (2015) the adverse effects that may occur after receiving an adjustment, which included sometimes, but less frequently, headache, radiating pain, stiffness, and, in some cases, fatigue may occur. These were incomparable to the current study, where none of the participants reported such symptoms after receiving Chiropractic treatment; instead, thirteen participants reported instant pain relief, and an additional one did not receive treatment as they had to be referred. All participants explained that they felt lighter and pain free after the treatment and that they were more knowledgeable about Chiropractic.

Huluman (2022) published a survey on the attitudes towards limited drug prescription rights on South African Chiropractors. This survey was done to ascertain the attitudes of South African Chiropractors towards the inclusion of drug prescription in the Chiropractic scope of practice. The study was conducted on Chiropractors who are members of the AHPCSA and those that are CASA members.

### **5.5 The effect of the consultation on each individual's perception**

Results showed that 15.9 % were in favor of limited drug prescription rights for over-the-counter medication (OTC); 79% did not agree to full prescription rights for non-musculoskeletal drugs (Huluman 2022); 33.6% mentioned that they rarely recommend OTC prescription-based analgesic medication and non-steroidal anti-inflammatory drugs to their acute patients (Huluman 2022). About 60% of these participants were very confident with their pharmacological knowledge and agreed to further education and training in this expertise (Huluman 2022). Huluman (2022) further concluded from this

study that most South African Chiropractic practitioners indicated an interest in expanding their scope of practice to include limited prescription rights.

In the current study, half of the participants mentioned that they were not clear as to whether Chiropractors give out medication or prescription, or not. One elderly participant from Northern KZN expected to be given an injection or medication during her treatment procedure. Two participants highlighted how much medication is consumed and the risk that it poses on humans, and that they were happy that there are other forms of treatment that does not include prescription of medication. Three participants which two were rugby players, and one an artist mentioned that in their understanding a doctors' title in their culture means there is medication involved, not unless a person is a doctor by academia.

These results in this section cannot be compared to those of Robbertze (2018) as all her participants had an understanding that Chiropractic treatment procedures fall under alternative medicine and does not involve prescription of drugs or injection. The results also differ to those of Brown et al. (2014a) as there was no confusion between conventional and alternative medicine in his study's participants. With this ongoing discussion on whether Chiropractors should be licensed to prescribe drugs, Chiropractors still strongly believe that medication can cause life-threatening effects such heart failure and liver failure leading to death (Huluman, 2022).

About a third of the current study's research participants were able to differentiate between a medical doctor and a Chiropractor or had an idea of how the two differ in their scope of practice. Most of these participants referred to medication and surgery for medical doctors and joint specialists, and manual therapy for Chiropractors. Participants were further asked if they then understood the difference between medical doctors and Chiropractors after their appointment with the Chiropractor, and it was noted that all participants gave positive feedback, in that they understood how the two differ.

According to Cross et al. (2015), these two professions differ, in that a Chiropractor uses at least twenty types of procedures to treat the human body; they often manipulate the spine and other joints during these treatments, under the notion that doing so will cure

the initial cause of pain and discomfort. Whereas medical doctors can specialize in different areas and treatments that differ, depending on the type of disease and age group, they consist of specialists such as pediatricians, internists, dermatologists, oncologists, and so on (Cross et al. 2015). Medical treatments include, but are not limited to, diagnosing patients and drug prescriptions, and using surgical treatments and other therapies to treat different diseases (Cross et al. 2015).

Atlas et al. (2021) conducted a comparative analysis study between care seekers of Chiropractic and general practitioner patients in Canada and the United States, with the purpose to identify health-related variables and the quality of life between these participants. A random sample, of adults in Canada of 3505 participants and 5183 in the US, was selected. Categories were identified according to the patient healthcare use in the previous year (Atlas et al. 2021). Results from this study showed that nearly 80% of these participants sought care from general practitioners; and 12% from Chiropractors; within this, 12% in both countries. These patients tend to be patients under sixty-five, and white patients with arthritis and disabling neck or back pain (Atlas et al. 2021).

Most of the US patients were obese female patients, and Canadian Chiropractic patients were college educated, with higher incomes, and mentioned that they were dissatisfied with medical care (Atlas et al. 2021). It was then concluded by Atlas et al. (2021) study that Chiropractic and general practitioner patients were not similar in both countries, with key differences being that Chiropractic patients mostly lacked chronic conditions and took fewer drugs, had no regular medical doctor, were under forty, and more educated than patients that seek care from general practitioners.

Mothibi (2011) conducted a survey to determine the awareness of the Chiropractic population, which was about the knowledge, usage, and attitude towards the Black population group of people living in Daveyton on the East Rand in South Africa. The main aim of the study was to determine the awareness of the profession amongst this population group. Two hundred and fifty questionnaires were distributed, with a response rate of 99.9%, as only one questionnaire was not completed (Mothibi, 2011). This study included individuals over the ages of eighteen, residing in Daveyton on the East Rand,

and of Black ethnicity. The project consisted of two sections: section A, which only tested participants' biographic information, and section B, which tested the knowledge of these participants about Chiropractic and the services that it renders. Mothibi (2011) found that only 17.1% of her population study was aware of Chiropractic, and about 68.4% had not been exposed to Chiropractic and had no information about it.

Mothibi (2011) further stated that only 32.9% were employed individuals, with the rest being unemployed and seeking employment. Most of these participants were not certain of what job description Chiropractic was, with 42% describing it to be the same as the medical practitioner, and 22% describing it as a massage therapist. 88% of the total population group were referred to by friends or colleagues and stated their reason for not visiting a Chiropractor to be the unavailability of Chiropractic practitioners in their living areas or working environments (Mothibi 2011).

Conclusions that were drawn from the study were that the Black South African population living on the East Rand in Daveyton had very little knowledge of Chiropractic as a profession, and that more educational efforts need to be carried out to educate this group about the profession, and further research studies needed to check the availability of Chiropractic practitioners in Daveyton (Mothibi 2011). These conclusions can further be compared to the results from the current study, in that participants showed very little knowledge about the profession and the knowledge about services that Chiropractors offer. Mothibi (2011) further stated that no research studies have been done regarding an ethnic group's awareness of the Chiropractic profession, in South Africa. However, the profession has made means available to educate people about the profession around the world, in initiatives such as the World Spine Day, held annually on the 16th of October, which is an initiative by the World Federation of Chiropractic (Ismail, 2021). This initiative aims to highlight and raise awareness around spinal health and disabilities associated with spinal injuries. There are other initiatives carried out particularly by the Durban University of Technology, such as careers fair day and awareness at sports events that aim to educate the public about the profession. None of the participants from the current

study had been exposed to such events, and they mentioned that more can still be done to educate the public about the profession.

Chapter one of this study discussed how the profession originated and evolved around the world to the public. Section A of the interview guide asked participants to give their brief understanding of the profession, and its definition, in their own terms; only one participant was able to define and had done her research on the profession.

Chiropractic treatment has been proven to be more effective in the treatment and prevention of acute low back pain, preventing the need for surgery, and improving mobility in patients, than standard medical care (Heshemi et al. 2015). Spinal manipulation and other Chiropractic modalities are considered very safe, and generally to be very effective. Previous research studies have shown it to be effective in the treatment of headaches and general neck pain, therefore, osteoarthritis and fibromyalgia respond very well to the moderate pressure applied by Chiropractors to deep tissue (Heshemi et al. 2015).

Chiropractic has been proven to be effective in the treatment of the following, but not limited to these conditions: neck pain, whiplash, lower back pain, headaches and migraines, sciatica, scoliosis, spinal disc injuries, sports-related injuries, tendinitis, pregnancy-related pain, arthritis, sprains, joint pains and so forth (Heshemi et al. 2015). From the current study, it was concluded that all participants who received treatment from their Chiropractic intern had positive feedback, and mentioned the procedures to be effective in the treatment of their conditions as they were all pain free after treatment.

According to Heshemi et al. (2015) study, it is said that anyone can benefit from Chiropractic care, including babies and children with spinal problems, office workers, factory workers, elderly patients with wear and tear conditions, and athletes with varying sports injuries.

Silins (2015) conducted a study on the effect of experience on the perception and representation of dialect variants, where it was stated that one's perception of the world is influenced by their expectation; those expectations help them to make sense of what

they perceive in the present, based on past experiences. Experience happens within one person, which then puts them in charge of their perception of that experience (Silins 2015). In this study, the participants' experience with the Chiropractic intern changed the way they view the profession at large and developed perceptions in those that had none before their experience with the Chiropractor. It can be concluded that the experience triggered these individuals to have certain interests and questions about the profession. As stated in chapter two, a good experience of something yields great perceptions of that thing; the statement can be compared to the results from the study.

It was evident from the results of the study that there was a lack of perception of Chiropractic prior to each participants' consultation, which may come from a general misunderstanding of the profession. According to MacPherson et al. (2015), it was stated that it is important for practitioners to communicate with patients to close the gap between expectations and care delivery, to prevent negative treatment outcomes.

In conclusion from the current study's results, it can be stated that all participants had an improved understanding of the profession, regarding its diagnostic ability following their consultation, although some experienced some confusion between the different types of Chiropractic treatment modalities. It was beneficial for the patients, considering that their experience broadened their perceptions of the Chiropractic scope of practice. However, some still referred to manipulation as "bone breaking or clicking" after their experience. This indicated the necessity of more research or awareness to be done on the emphasis of more fitting terminology when referring to Chiropractic treatment modalities.

All participants that received treatment felt that they would return for follow-up consultations due to their favorable treatment outcomes. About eight participants mentioned that they would also recommend Chiropractic to others. According to Jones (2014) it is stated that whether one recommends, returns, or advises against a business is highly dependent on their experiences with the business.

## **5.6 Researcher positioning**

The qualitative researcher's involvement is vital in this type of research; they play the role of the instrument of data collection; thus, the researcher needs to be highly involved. The researcher is a chiropractic student during the duration of the study, therefore was aware of many aspects of the chiropractic profession and was very involved in the CDC. To understand the perspectives of the participants, the researcher interprets the participants' responses. Through this, the researcher tends to reflect the interpretations from the data collected by viewing the situation through their lenses.

Effort was made to ensure trustworthiness and a confidential environment for participants; part of this was not disclosing patients' confidential information, such as the patients' personal details. This was done to enable participants in the study to be comfortable, and not to withhold any information, during data collection, regarding their perceptions about chiropractic and experiences after their first consultation with the chiropractic student intern.

In this chapter, patient demographic characteristics were discussed and compared with the others from the previous Chiropractic perceptions study, and responses were compared with those from existing literature. A room for improvement remains in future research studies on patient perceptions in different ethnic groups to get to the core of population's understanding of the Chiropractic scope of practice. The above indicates a necessity for practitioners to educate patients about their scope of practice to ensure that patients' expectations are met, and for better practitioner-patient relations.

The indigenous Black South Africans had little knowledge about the Chiropractic profession. However, they all reported good experience of their Chiropractic treatment with the student intern. It can be concluded that the experience generally had a positive effect on each participants' perception of the profession. The next chapter will discuss more detailed conclusions from the study, recommendations that can be drawn from the current research, study limitations and possibly further education for further perception studies.



## **CHAPTER SIX: CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS**

### **6.1 Conclusion of the study**

Public perceptions of Chiropractic continue to evolve over the years, and the profession continues to gain popularity around the globe (Hawk 2017). Literature has shown that, because of this, the Chiropractic profession is leading amongst complementary medicine.

In this study, a qualitative, descriptive, and exploratory method was utilized. A qualitative approach was suitable to gain an in-depth understanding of the participants' perceptions and their experiences with the Chiropractic student intern. An exploratory approach was adopted, as the researcher needed to get to the core of these participants' perceptions and expectations of the treatment.

Data was collected at the Durban University of Technology Chiropractic Day Clinic private treatment rooms, through individual semi-structured interviews. The study recruited fourteen indigenous Black South Africans, who were visiting a Chiropractor for the first time. The researcher had discussions with the participants, using the interview questions, to fulfil the aims and objectives of the study.

Chapter one has provided an introduction and origin of the profession; whereas Chapter two followed with a brief introduction of the profession, which was supported by background literature of studies done previously around the utilization, perceptions, expectations and experiences of Chiropractic globally. Chapter two also provided an in-depth correlation between perception and experiences and the factors that can affect these two; it further discussed the confusion around different types of medicine utilized by the public, and touched on the use of traditional medicine, its evolution and utilization, and how different bone doctors can be confused with each other.

Chapter three then went on to discuss the methods used to accumulate data used for the current study, and methods to analyze it to determine different themes that may arise from it and for further data discussion to provide conclusions from the study. Chapter four provided results from the fourteen interviews that were done. Chapter five was an in-

depth discussion of the data provided in chapter four. As a result, it was concluded that most participants sought chiropractic care because of recommendations from others.

Frequently these recommendations came from people who had previously experienced the benefits of chiropractic treatment, some of whom received care at the DUT CDC, which indicates positive word-of-mouth advice which is desirable. Most participants believed Chiropractic to function as an alternative to conventional medicine, although some perceived Chiropractors to prescribe medication to people. Informing patients about Chiropractic scope of practice could work to the professions' advantage, ensuring that people understand the professions limitations to avoid unrealistic expectations. Chiropractic treatment, as stated previously, can be used in conjunction with conventional medicine, if necessary, this should be explained to patients.

Most participants lacked an understanding of an adjustment which is the main treatment modality of Chiropractic, some participants used an atypical terminology "cracking or popping" and misunderstood the execution of the adjustment and its outcome effect. There was limited understanding of other treatment modalities that chiropractors use. Most participants associated Chiropractic with the back, which is often emphasized in the Chiropractic profession using the term "spine specialists".

Following participants' first experience with the Chiropractor, their perceptions had expanded, however, there remained room for improvement. Patients should be educated to ensure formation of a well-informed perceptions regarding Chiropractic and its scope of practice, to allow for valuable word-of-mouth, ensuring that the public are well informed which could positively affect its utilization by the public.

Most participants had realistic treatment outcomes which could positively affect experiences due to disappointment prevention associated with the treatment. These expectations highlight the necessity for patient-practitioner communication, understanding and communicating with patients is necessary as inconsistencies may arise and may negatively affect treatment outcomes.

From the research study it is evident that the Chiropractic interns' willingness to inform and reassure patients assisted to produce perceptions of competence regarding the profession, this induced feelings of trust and comfort and lessened anxiety in patients. Patients should be provided with explanations and care must be taken to ensure that they comprehend these explanations as misunderstandings could inhibit beneficial outcomes of patient education. Most participants expressed that their expectations were met or exceeded, which is beneficial as the decision to return and recommend Chiropractic depends on the extent to which expectations are met.

#### **6.1.1 List of objectives that were fulfilled from the study:**

- Perceptions of indigenous Black South Africans receiving Chiropractic treatment for the first time were explored.
- Experiences of these participants were described, and the effect of these experiences on the participants' perceptions was determined.
- The effect of the consultation with the Chiropractic intern on each participant was explored.

#### **6.2 Limitations of the study**

The factors that might have affected the in-depth information obtained from these participants are firstly, the interviewer is inexperienced in the interviewing skill, which may have limited the participants from giving out more information. Secondly, a small sample was used, which is the nature of the type of research used and means the findings from the study are not generalizable. None of the research participants made negative remarks about the profession, which might have been due to their awareness of the interviewer being an intern at the DUT CDC, causing them to withhold some information.

Given that the interview was held after the experience with the Chiropractic student intern to try and cater for the participants' time, since the first appointment takes a long time; with participants not showing up on time for their appointments, it is taken into

consideration that they may have had difficulty recalling their initial perceptions of the profession before the experience with the student intern.

### **6.3 Recommendations from the study**

The current study explored the perceptions of indigenous Black South Africans on Chiropractic, their reflection on their experience with the Chiropractor, and whether the experience changed their perception of Chiropractic. Further research studies could be done on other ethnic groups, to determine the gap for further awareness and education in different ethnic groups. Participants from the current study had a lack of understanding of different Chiropractic treatment modalities and its' effectiveness; for example, the word "break bones" was used when referring to an adjustment. Further research can be done to explore an understanding of different modalities by patients.

These perceptions and experiences can be re-evaluated after several years to do a comparative study on the perceptions studies done at the DUT CDC. However, the interview process can be split into two sections: one before the appointment and one after, to ensure that the experience does not alter the participants' initial perception of Chiropractic.

Further studies can be done to explore the demographic characteristics of participants attending the DUT CDC - focusing on participants' level of education, marital status, level of income, and the type of employment. Additionally, recommendations for the DUT CDC are that they make means to improve efficiency, as the long duration of the appointment has been proven to be unfavorable to some.

A recommendation to the profession is that they ensure that more effort is put in place for the awareness of the profession, to educate the public about the profession, especially in rural areas. More effort also needs to be put into the integration of Chiropractic into the public healthcare system. Chiropractors can also ensure that they practice as primary care providers for musculoskeletal conditions, ensuring that diagnostic tests are utilized.

Practitioners should put more effort into practitioner-patient communication, and word-of-mouth advice, so that the information reaches as many people as possible about Chiropractic, and so that patients will recommend Chiropractic to others. The above can also be beneficial to patients in that there will be fewer hospital admissions, less spending on drugs and reduced need for surgery.

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## APPENDIX A: PROVISSIONAL APPROVAL.



Email: lavishad@dut.ac.za

[http://www.dut.ac.za/research/institutional\\_research\\_ethics](http://www.dut.ac.za/research/institutional_research_ethics)

**Institutional Research Ethics Committee**  
Research and Postgraduate Support Directorate  
2<sup>nd</sup> Floor, Berwyn Court  
Gate 1, Steve Biko Campus  
Durban University of Technology  
  
P O Box 1334, Durban, South Africa, 4001

Tel: 031 373 2375

[www.dut.ac.za](http://www.dut.ac.za)

2 June 2022

Ms G Magwaza  
37 Gurnard Grove  
Newlands East  
4037

Dear Ms Magwaza

**Perceptions and experiences of indigenous Black South Africans receiving chiropractic treatment at a university of technology teaching clinic in Durban.**

I am pleased to inform you that **PROVISIONAL APPROVAL** has been granted to your proposal subject to:

- Obtaining and submitting the necessary gatekeeper permission/s to Institutional Research Ethics Committee (IREC).

**PLEASE NOTE THAT THIS IS NOT A FINAL APPROVAL LETTER. KINDLY SUBMIT THE ABOVE MENTIONED DOCUMENTS WITHIN THREE MONTHS TO THE IREC OFFICE. DATA COLLECTION CAN ONLY COMMENCE WHEN IREC ISSUES FULL APPROVAL**

The Proposal has been allocated the following Ethical Clearance number **IREC 093/22**. Please use this number in all communication with this office.

Approval has been granted for a period of **ONE YEAR**, before the expiry of which you are required to apply for safety monitoring and annual recertification. Please use the Safety Monitoring and Annual Recertification Report form which can be found in the Standard Operating Procedures [SOP's] of the IREC. This form must be submitted to the IREC at least 3 months before the ethics approval for the study expires.



Yours Sincerely



---

Prof J K Adam  
Chairperson: IREC



**Institutional Research Ethics Committee**  
Research and Postgraduate Support Directorate

2<sup>nd</sup> Floor, Berwyn Court  
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[www.dut.ac.za](http://www.dut.ac.za)

## **APPENDIX B: FULL ETHICAL CLEARANCE.**

10 June 2022

Ms G Magwaza  
37 Gurnard Grove  
Newlands East  
4037

Dear Ms Magwaza

**Perceptions and experiences of indigenous Black South Africans receiving chiropractic treatment at a university of technology teaching clinic in Durban. Ethical Clearance Number: IREC 093/22**

The Institutional Research Ethics Committee acknowledges receipt of your gatekeeper permission letters.

Please note that FULL APPROVAL is granted to your research proposal. You may proceed with data collection.

Any adverse events [serious or minor] which occur in connection with this study and/or which may alter its ethical consideration must be reported to the IREC according to the IREC Standard Operating Procedures (SOP's).

Please note that any deviations from the approved proposal require the approval of the IREC as outlined in the IREC SOP's.

Yours Sincerely

\_\_\_\_\_  
Prof J K Adam  
Chairperson: IREC



*Directorate for Research and Postgraduate Support  
Durban University of Technology  
Tromso Annexe, Steve Biko Campus  
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## **APPENDIX C: GATEKEEPER**

5<sup>th</sup> June 2022

Ms Gugu Magwaza  
c/o Department of Chiropractic  
Faculty of Health Sciences

Dear Ms Magwaza

### **PERMISSION TO CONDUCT RESEARCH AT THE DUT**

Your email correspondence in respect of the above refers. I am pleased to inform you that the Institutional Research and Innovation Committee (IRIC) has granted **Gatekeeper Permission** for you to conduct your research “Preconceptions and experiences of indigenous black South Africans receiving Chiropractic treatment at a university of technology teaching clinic in Durban.” at the Durban University of Technology. **Kindly note that this letter must be issued to the IREC for approval before you commence data collection.**

The DUT may impose any other condition it deems appropriate in the circumstances having regard to nature and extent of access to and use of information requested.

We would be grateful if a summary of your key research findings would be submitted to the IRIC on completion of your studies.

Kind regards.  
Yours sincerely

\_\_\_\_\_  
PROF. KEO MOTAUNG  
ACTING-DIRECTOR: RESEARCH AND POSTGRADUATE SUPPORT DIRECTORATE

## MEMORANDUM

### APPENDIX D: DEPARTMENT GATEKEEPER

To : Prof Adam  
Chair: IREC

From : Dr Desiree Varatharajullu  
Head of Department: Chiropractic  
Clinic Director: Chiropractic Day Clinic: Chiropractic

Date : 04.06.2022

Re : Request for permission to use the Chiropractic Day Clinic for research purposes

Permission is hereby granted to:

**Ms Gugu Magwaza (Student Number: 21501989)**

**Research title:** "Perceptions and experiences of indigenous Black South Africans receiving chiropractic treatment at a university of technology teaching clinic in Durban."

Ms Magwaza, is requested to submit a copy of her FRC/IREC approved proposal along with proof of her M.Tech: Chiropractic registration to the Clinic Administrator/s before she starts with her research in order that any special procedures with regards to her research can be implemented prior to the commencement of her seeing patients.

Thank you for your time.

Kind regards

Dr D Varatharajullu

Head of Department: Chiropractic

Clinic Director: Chiropractic Day Clinic: Chiropractic

Cc: Mrs Linda Twiggs: Chiropractic Day Clinic

Dr P. Ortan: Supervisor

Dr I. Couchman: Collaborator



## APPENDIX E: LETTER OF INFORMATION (MAIN STUDY)

**Title of the Research Study:** Perceptions and experiences of indigenous Black South Africans receiving Chiropractic treatment at a university of technology teaching clinic in Durban.

**Principal Investigator/s/researcher:** Gugu Magwaza, B.Tech.

**Co-Investigator/s/supervisor/s:** Dr P Orton, PhD Nursing.

**Collaborator:** Dr I Couchman, M.Tech Homeopath

**Brief Introduction and Purpose of the Study:** Chiropractic treatment is not well known in the African culture and may be seen as only for certain people. This research will assess your perceptions and experiences of Chiropractic treatment. This will then show if there are any misconceptions about the profession and these can then be addressed by the Chiropractic profession.

The aim of the pilot study is to test the concepts that will be used in the main study, ask similar questions to give an overview and make amendments where necessary before the main study is carried out.

I am doing my masters' degree in Chiropractic at the Durban University of Technology, and I would like to ask you to participate in my study. My study explores the perceptions and experiences of Black South Africans receiving treatment at the clinic.

### **Outline of the Procedures: Outline of the Procedures:**

Chiropractic treatment is not well known in the African culture and may be seen as only for certain people. This research will assess your perceptions and experiences of Chiropractic treatment. This will then show if there are any misconceptions about the profession and these can then be addressed by the Chiropractic profession.

The aim of the study is to investigate your perceptions and experiences before and after receiving treatment at the Durban University of Technology Chiropractic Day Clinic. The study will look at your beliefs regarding how a Chiropractor is going to assist you with treatment, to assess your subsequent experience of the treatment, and lastly to compare the pre-treatment and post-treatment experiences.

### **Outline of the Procedures:**

The first step I have put in place for you to participate in my study is for you to first read the letter of information in order to ask questions and give full informed consent. After you have given consent, you will go through the interview process at the Durban University of Technology, Chiropractic department research room.

**Recruitment procedure and interview guide:**

- The researcher will directly approach you in order to schedule an interview with you.
- **The interview will take approximately 20-minutes, 10-minutes prior to the appointment and 10 minutes after consultation.**
- You will be asked to read the letter of information (appendix C) and sign the informed consent forms (appendix E) before proceeding with the interview process.
- You will then be interviewed in the department of Chiropractic research room before and after the consultation with the Chiropractic intern.
- You will be interviewed on your perceptions of Chiropractic before the consult, and your experiences, and if your perceptions have changed after the experience with the Chiropractic student after consultation.
- Both interviews will be audio recorded using two recording devices to ensure the data is captured. This will be done with your permission.

**Inclusion criteria:**

- You have to be Indigenous Black South African – male and female over the age of 18 years.
- You have to sign the letter of information and consent form.
- You have to be a new participant.

**Exclusion Criteria:**

- If you do not read and sign the informed consent.
- If you have been to the Chiropractor before (in private practice or at the DUT Clinic).

**Risks or Discomforts to the Participant:**

The research process will not impose any risks or side effects to you, participation is completely voluntary.

**Benefits:**

You will benefit indirectly from the study, any misconceptions that you might have will be addressed and more education about Chiropractic will be provided to you.

**Reason/s why the participant may be withdrawn from the study:**

Should you choose to withdraw there will be no adverse consequences.

**Remuneration:** No remuneration will be given to you.

**Costs of the Study:**

There are no costs involved for you.

**Research-related Injury:** None.

**Persons to contact in the Event of Any Problems or Queries:** Please contact the researcher (0672415840), my supervisor (082 453 8442) or the Institutional Research Ethics Administrator on 031 373 2375. Complaints can be reported to the Director: Research and Postgraduate Support Dr L Lingano on 031 373 2577 or [researchdirector@dut.ac.za](mailto:researchdirector@dut.ac.za).

**Researcher:** Gugu Magwaza



## **CONSENT (MAIN STUDY)**

### **APPENDIX F**

**Full Title of the Study:** Perceptions and experiences of indigenous Black South Africans receiving Chiropractic treatment at a university of technology teaching clinic in Durban.

**Names of Researcher:** Gugu Magwaza

#### **Statement of Agreement to Participate in the Research Study:**

- I hereby confirm that, I have been informed by the researcher, Gugu Magwaza, about the nature, conduct, benefits and risks of this study - Research Ethics Clearance Number **093/22**.
- I have also received, read and understood the above written information (Participant Letter of Information) regarding the study.
- I am aware that the results of the study, including personal details regarding my sex, age, date of birth, initials and diagnosis will be anonymously processed into a study report.
- In view of the requirements of research, I agree that the data collected during this study can be processed in a computerised system by the researcher.
- I may, at any stage, without prejudice, withdraw my consent and participation in the study.
- I have had sufficient opportunity to ask questions and (of my own free will) declare myself prepared to participate in the study.
- I understand that significant new findings developed during the course of this research which may relate to my participation will be made available to me.

---

<b>Full Name of Participant</b>	<b>Date</b>	<b>Time</b>	<b>Signature</b>	<b>/</b>	<b>Right</b>
<b>Thumbprint</b>					

I, Gugu Magwaza herewith confirm that the above participant has been fully informed about the nature, conduct and risks of the above study.

_____	_____	_____
<b>Full Name of Researcher</b>	<b>Date</b>	<b>Signature</b>

_____	_____	_____
<b>Full Name of Witness (If applicable)</b>	<b>Date</b>	<b>Signature</b>

_____	_____	_____
<b>Full Name of Legal Guardian (If applicable)</b>	<b>Date</b>	<b>Signature</b>



## APPENDIX G: INTERVIEW GUIDE

This interview process is carried as a two-step interview process, the first part will take place before the consultation and the second part after the consultation has taken place (Approximately 10 minutes each).

Please fill out Demographic information:

- ☐ Age: \_\_\_\_\_
- ☐ Gender: \_\_\_\_\_
- ☐ Race: \_\_\_\_\_
- ☐ Occupation: \_\_\_\_\_

- After you have read the letter of information and signed the letter of informed consent, the interview will be carried out in the following manner:
- The interview will take approximately 20-minute, 10-minutes prior to your appointment and 10 minutes after consultation.
- The interviews-semi-structured. Patients' perceptions of chiropractic before the consult:
  - ☐ What did you think the Chiropractic profession was when you first heard of it?
  - ☐ What are your perceptions of the Chiropractic profession and what are you expecting the chiropractor will assist you with today?
  - ☐ How did you find out about Chiropractic?
  - ☐ How do you think the chiropractic profession differs from the medical health care profession?
  - ☐ Have you ever heard of the term allopathic care and what is your understanding of this term? How does it fit into health care?
  - ☐ How do you see Chiropractic fitting in the healthcare sector?

Post-consult (10 minutes): After the experience with the chiropractor:

- ☐ What was your experience of the Chiropractic treatment? Was it what you had expected from the Chiropractor, please explain?
- ☐ How did your experience match your perceptions? Explain.
- ☐ Have your perceptions changed after the experience with the Chiropractor? If yes, explain why and how they have changed?
- ☐ Do you understand the role of Chiropractic in the healthcare sector after your consultation? How do you think that the Chiropractic profession is different from the medical health care profession after your consultation with the Chiropractor?

- Both interviews will be audio recorded using one recording device to ensure the data is captured. This will be done with the participant's permission. The data will be stored in a password secured document on the researcher's computer and only she will have access to this data.

THANK YOU.



#### **APPENDIX H: ADVERTISEMENT OF THE STUDY.**

**ARE YOU OVER THE AGES OF 18? AN INDIGENOUS BLACK SOUTH AFRICAN? NEVER BEEN TO A CHIROPRACTOR BEFORE AND WOULD LIKE TO HAVE A FEEL OF IT? VISIT THE DUT CHIROPRACTIC DAY CLINIC FOR YOUR VERY FIRST APPOINTMENT!!!!!!**

**LET US KNOW WHEN YOU DO SO YOU CAN HAVE SOME TEA WITH US AND CHAT BEFORE AND AFTER YOUR APPOINTMENT. MESSAGE THE RESEARCHER ON 0672415840 AND SHE WILL CALL YOU BACK TO BOOKYOUR SPOT!**

**TO QUALIFY YOU NEED TO BE:**

- **An Indigenous Black South African – male or female over the age of 18 years.**
- **A New participant at the DUT Chiropractic day clinic who has not been to a Chiropractor before.**
- **Willing to go through a short interview process**

**INTERESTED IN SHARING YOUR PERCEPTIONS ABOUT CHIROPRACTIC WITH US, AND TELLING US MORE ABOUT YOUR EXPERIENCE WITH YOUR CHIROPRACTOR? CONTACT THE RESEACHER, GUGU MAGWAZA ON 0672415840 OR INFORM THE CHIROPRACTIC RECEPTIONIST THAT YOU WOULD LIKE TO PARTICIPATE.**

**THANK YOU.**



**Zertifikat  
Certificat**

**Certificado  
Certificate**

Promouvoir les plus hauts standards éthiques dans la protection des participants à la recherche biomédicale  
Promoting the highest ethical standards in the protection of biomedical research participants

**Certificat de formation - Training Certificate**

Ce document atteste que - this document certifies that



**Gugu Magwaza**

a complété avec succès - has successfully completed

**Informed Consent**

du programme de formation TRREE en évaluation éthique de la recherche  
of the TRREE training programme in research ethics evaluation

Release Date: 2022/05/19  
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[R15V - 20220517]

Please Return To: The Faculty Research Officer  
Health Sciences  
Sugen Reddy  
P O Box 1334  
Durban  
4001

**REFERENCE DECLARATION IN RESPECT OF A  
MASTER'S/DOCTOR'S/LAUREATUS DISSERTATION/THESIS**

I, Gugu Magwaza  
Full Names of Student

I, Dr Penny Orton  
Full Names of Supervisor/Promoter

Dr Ingrid Couchman  
Full Names of Joint-Supervisor/Promoter

Do hereby declare that in respect of the following dissertation/thesis:  
**Perceptions and experiences of indigenous Black South Africans receiving  
Chiropractic treatment at a teaching Chiropractic clinic at a university of technology  
in Durban.**

- (1) as far as we know and can ascertain:
- (a) no other similar dissertation / thesis exists;
  - (b) the only similar dissertation (s) / thesis (es) that exist(s) is/have been referenced in my dissertation as follows:

\_\_\_\_\_  
\_\_\_\_\_

Delete which is inapplicable

- (2) all references as detailed in the dissertation are complete in terms of all personal communications engaged in and published works consulted.

\_\_\_\_\_  
Signature of Student

24/01/2023  
Date

P.M. Orton  
Signature of Supervisor/Promoter

25/01/2023  
Date

\_\_\_\_\_  
Signature of Joint-Supervisor/Promoter

24/01/2023  
Date

# Perceptions and experiences of indigenous Black South Africans receiving Chiropractic treatment at a teaching Chiropractic clinic at a university of technology in Durban

## ORIGINALITY REPORT

10%	9%	7%	%
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## Submission of Dissertation/Thesis for Examination

<b>Faculty</b>	Health Science		
<b>Department</b>	Chiropractic		
<b>Qualification for which registered</b>	M.Tech Chiropractic		
<b>Offering type</b>	<b>Full time registration</b>	X	<b>Part time registration</b>
<b>Prior qualification</b>			

<b>Student Surname</b>	Magwaza		<b>Student No.</b>	21501989
<b>First Names</b>	Gugu		<b>Title (Mr, Ms)</b>	Ms
<b>Postal Address</b>	37 Gurnard Grove Newlands East 4037			
<b>Tel (W)</b>	<b>Tel (H)</b>	<b>Cell</b>	<b>Fax</b>	<b>e-Mail</b>
		0794336252		gugumagwaza72@gmail.com
<b>Title of Dissertation/ Thesis</b>	Perceptions and experiences of indigenous Black South Africans receiving Chiropractic treatment at a teaching Chiropractic clinic at a university of technology in Durban.			<b>Full</b>
				<b>Partial</b>
				<b>Dissertation/Thesis</b>

<b>Supervisor</b>	Dr P Orton			
<b>Position</b>	Honorary Research Fellow Faculty of Health Sciences		<b>Present Qualifications</b>	PhD Nursing
<b>Tel (W)</b>	<b>Tel (H)</b>	<b>Cell</b>	<b>Fax</b>	<b>e-Mail</b>
N/A	N/A	0824538442	N/A	penny@dut.ac.za
<b>Co-Supervisor</b>	Dr I Couchman			
<b>Position</b>	Lecturer		<b>Present Qualifications</b>	M.Tech Homeopath
<b>Tel (W)</b>	<b>Tel (H)</b>	<b>Cell</b>	<b>Fax</b>	<b>e-Mail</b>
0313732482		0829256796		ingridc@dut.ac.za
<b>I hereby grant the abovementioned student permission to submit her dissertation for examination.</b>				

Signed: P.M. Orton  
(Supervisor)

Date: 24 January 2023

YES	X	NO	
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Signed: \_\_\_\_\_  
(Co-Supervisor)

Date: 24 January 2023

YES	X	NO	
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Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
(HoD)

<b>Routing</b>	<b>Student</b>		<b>Supervisor</b>		<b>HoD</b>		<b>Faculty Officer</b>	
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*Faculty of Humanities*


*We certify that*

*Paula Ann Dwyer*


*completed a short course with an estimated learning time of 100 hours, start  
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*20 January 2021*

  
Dean of Faculty



  
Course Convenor

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