

**PERCEPTIONS OF CHIROPRACTORS IN THE  
ETHEKWINI MUNICIPALITY ON THE INTEGRATION OF  
CHIROPRACTIC INTO THE PUBLIC HEALTHCARE  
SECTOR OF SOUTH AFRICA**

By

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Dissertation submitted in partial compliance with the requirements for the Master's  
Degree in Technology: Chiropractic at the Durban University of Technology

I, Natalie Davies, do declare that this dissertation is representative of my own work in  
both conception and execution (except where acknowledgements indicate to the  
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# DEDICATION

“It always seems impossible until its done” Nelson Mandela.

“I can do all things through Christ who strengthens me” Philippians 4:13.

“You my brothers and sisters, were called to be free. But do not use your freedom to indulge the flesh; rather serve one another humbly in love” Galatians 5:13.

I dedicate this thesis to my dad. Thank you for everything you have done for me and supporting me through my entire study career. Thank you for your patience and understanding and encouraging me to pursue greatness.

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# ABSTRACT

## **Background**

Currently, chiropractic is not incorporated into the South African public healthcare sector despite its emphasis on the values of wellness and health. This is due to a poor relationship with mainstream medical practitioners, the construct of chiropractic education and its long standing isolation within the healthcare system within South Africa. The public healthcare sector in South Africa is strained. Low back pain is one of the main reasons patients seek medical attention from primary medical doctors. A growing body of evidence is now emerging which supports the role of chiropractic in post-surgical rehabilitation and the treatment of extraspinal non-pathological musculoskeletal conditions. Based on the findings of these studies, an argument could be made for the transition of chiropractic from a mainly private practice base to one that would enable it to reach to the wider population in the public healthcare sector.

## **Aim**

The aim of the research study was to explore and describe the perceptions that chiropractors have about the integration of the chiropractic profession into the South African public healthcare sector.

## **Method**

A descriptive exploratory qualitative approach was used to guide the study. In-depth interviews were conducted with ten chiropractors within the eThekweni municipality. The main research question for this study was “What are the perceptions of chiropractors in the eThekweni Municipality on the integration of chiropractic into the public healthcare sector of South Africa?” The data was analysed through thematic analysis.

## Results

The main themes that emerged were the role of chiropractic in the healthcare system, the integration of chiropractic into the healthcare sector and the challenges facing chiropractors in the healthcare system. The themes and sub-themes were as follows;

- Theme 1 Role of chiropractic in the healthcare system
  - Sub-theme 1.1 Primary contact for neuromuscular medicine.
  
- Theme 2 Integration of chiropractors into the public healthcare sector
  - Sub-theme 2.1 Relief of overworked healthcare workers.
  - Sub-theme 2.2 Decrease costs in surgical and medication use.
  
  - Sub-theme 2.3 Increased learning opportunities.
  - Sub-theme 2.4 Use of chiropractic in post-surgical care.
  - Sub-theme 2.5 Need for pre-surgical assessment.
  - Sub-theme 2.6 Integration facilitated by the Chiropractic Association of South Africa (CASA).
  
- Theme 3 Challenges facing chiropractors in the public healthcare sector
  - Sub-theme 3.1 Opposition from medical doctors.
  - Sub-theme 3.2 Opposition from within the chiropractic profession.
  - Sub-theme 3.3 Inability to function as the primary practitioners.
  - Sub-theme 3.4 Unfamiliar structure of the public health care sector.

## Conclusion

A lack of clarity on the identity and role of chiropractic in the public healthcare sector emerged from the findings of this study. Individual chiropractors, the professional body (CASA) and the Allied Health Professions Council of South Africa (AHPCSA) need to engage in active roles in the integration of chiropractic into the public healthcare sector of South Africa.

**Key words:** Chiropractic, Public health, Integration, South Africa

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## **LIST OF DEFINITIONS**

### **Auxiliary**

In the context of the research auxiliary refers to the auxiliary treatment that is used in conjunction with spinal manipulative therapy. An example would be the use of heat therapy.

### **Chiropractic**

“A healthcare profession concerned with the diagnosis, treatment and prevention of disorders of the neuromusculoskeletal system and the effects of these disorders on general health. There is an emphasis on manual techniques, including joint adjustment and/or manipulation, with a particular focus on subluxations” (World Health Organisation 2005).

### **Complementary and Alternative Medicine**

The group of healthcare professions, which do not form part of a country’s main healthcare system (Carey et al. 2005).

### **Integration**

The incorporation as equals into society or an organisation of individuals of different groups (Volcabulary Dictionary 2018). Functional integration is the interdependence among parts of a social system (Prezi 2018). Structural integration is the integration into a social system based on how it is arranged or organised (Merriam-Webster 2018).

### **Joint subluxation**

A joint subluxation is a complex of functional and/or structural and/or pathological articular changes that compromise neural integrity and may influence organ system function and general health (Feuling 2001).

### **Mixer chiropractor**

Mixer chiropractors agree on the knowledge that the vertebral subluxation is one cause in the many causes of disease (Keating et al. 2004). Mixer chiropractors employ the use of a number of different modalities that are used in addition to

chiropractic adjustments (Chapman-Smith 2000) and they support the integration of chiropractic into mainstream medicine (Carey et al. 2005).

### **Primary Health Care**

A healthcare provider is the first point of access into the healthcare system for a patient. They take on a primary role for the management of the patient in a broad scope of practice and refer if necessary (Carey et al. 2005).

### **Private Health Care**

Private health care is run on commercial lines and is not part of the government. It caters to middle to high income earners that tend to be members of medical aid schemes. The majority of health professionals in South Africa work in the private sector (Healthcare in South Africa 2016).

### **Public Health Care**

Public health is defined as the science of providing protection and safety for a community through improving the health of communities by means of education, policy development and research for the prevention of disease and injury (Pitt Public Health 2016).

### **Scope of Practice**

The extent and limits of the medical interventions that a healthcare provider may perform (The Free Medical Dictionary 2016).

### **Spinal Manipulative Therapy**

Spinal manipulative therapy (SMT) is the generic term commonly given to a group of manually-applied therapeutic interventions. These interventions are usually applied with the aim of inducing intervertebral movement by directing forces to vertebrae and include spinal manipulation and mobilisation (The Free Medical Dictionary 2016).

### **Straight chiropractor**

Straight chiropractors main goal of treatment is finding and correcting the vertebral subluxation. They use little or no additional auxiliary procedures (Palmer 1910; Chapman-Smith 2000). The vertebral subluxation is believed to be the cause of all disease and that chiropractic is not part of mainstream medicine.

## LIST OF SYMBOLS AND ABBREVIATIONS

<b>%</b>	Percentage
<b>ACA</b>	American Chiropractic Association
<b>AHPCSA</b>	Allied Health Professions Council of South Africa
<b>AIDS</b>	Acquired immune deficiency syndrome
<b>CAM</b>	Complementary and Alternative Medicine
<b>CASA</b>	Chiropractic Association of South Africa
<b>DCA</b>	Danish Chiropractors' Association
<b>DSS</b>	Department of social security
<b>DUT</b>	Durban University of Technology
<b>ECCE</b>	European Council on Chiropractic Education
<b>GDP</b>	Gross domestic profit
<b>GP</b>	General Practitioner
<b>HIV</b>	Human immunodeficiency virus
<b>HPCSA</b>	Health Professions Council of South Africa
<b>IREC</b>	Institutional Research Ethics Committee
<b>LBP</b>	Low back pain
<b>MDR-TB</b>	Multi drug resistant tuberculosis
<b>MSD</b>	Musculoskeletal disease
<b>NHI</b>	National Health Insurance
<b>NHS</b>	National Health Service
<b>PCP</b>	Primary Contact Practitioner
<b>PHC</b>	Primary Health Care
<b>SMT</b>	Spinal manipulative therapy
<b>St</b>	Statement
<b>TB</b>	Tuberculosis
<b>UJ</b>	University of Johannesburg
<b>UK</b>	United Kingdom
<b>US</b>	United States
<b>USA</b>	United States of America
<b>WFC</b>	World Federation of Chiropractic
<b>WHO</b>	World Health Organisation
<b>XDR-TB</b>	Extremely drug resistant tuberculosis

# CHAPTER ONE

## INTRODUCTION

### 1.1 INTRODUCTION TO THE STUDY

The chiropractic profession dates back to 1895, when the first official chiropractic manipulation was performed (Batinic et al. 2013). Chiropractic is defined as a healthcare profession that focuses on disorders of the musculoskeletal system and the nervous system, and the effects of these disorders on general health. Chiropractic services are used most often to treat neuromusculoskeletal complaints but also non-neuromusculoskeletal complaints such as irritable bowel syndrome (American Chiropractic Association 2016). Low back pain is one of the main reasons patients seek medical attention (Goertz et al. 2013). Chiropractic is a non-invasive treatment that can be used to help patients with low back pain and other non-pathological causes of musculoskeletal discomfort (Peterson et al. 2012). Chiropractic is described as a drug-free profession devoted to the finding and amendment of the vertebral subluxation in order to eradicate nerve interference that can negatively affect health (Feuling 2001). A vertebral subluxation has been explained as “a complex of functional and/or structural and/or pathological articular changes that compromise neural integrity and may influence organ system function and general health” (Feuling 2001). The subluxation is corrected by joint manipulation or an adjustment which is achieved by applying a thrust movement to the joint involved. This produces a therapeutic effect by moving the joint past its physiological range of motion but within the joints’ anatomical range (Chapman-Smith 2000).

The concept of post-surgical rehabilitation is to restore joint motion and function as well as muscular strength around a joint. These are key features of chiropractic treatment that can assist a patient that has undergone surgery. A growing body of evidence is now emerging which supports the role of chiropractic in post-surgical rehabilitation (Coulis and Lisi 2013) and the treatment of extraspinal non-pathological musculoskeletal conditions such as shoulder and ankle injuries (De Luca et al. 2011).

In South Africa, most chiropractors work in the private sector (Chiropractic Association of South Africa 2011) which largely caters for middle and high income earners who usually tend to be members of medical aid schemes. Currently, chiropractic is not incorporated into the South African public healthcare sector despite its emphasis on the values of wellness and health as there has been a long history of segregation between mainstream healthcare and chiropractic. It is, therefore, important for the scope of chiropractic in the healthcare system to be defined by chiropractors themselves; this includes how chiropractic can be integrated into the public health sector and challenges perceived by the chiropractors.

Soanes and Hawker (2006), define integration as the intermixing of peoples or groups previously segregated while perception is defined as the ability to see, hear or become aware of something through the senses; a way of understanding or interpreting something; intuitive understanding and insight". Chaffee (2015) stated that perception depends on how the subject is actively, by means of their minds, organising and interpreting what is happening. It is important to define and understand the concept of integration and perception, as this study aimed to explore and describe the perceptions of the chiropractors selected on the integration of chiropractic into the public healthcare sector of South Africa.

In a retrospective study on the management of post-surgical lumbar spine pain, all 32 cases reported an improvement in lumbar spine pain subsequent to chiropractic treatment (Kruse and Cambron 2011). These results highlight the benefit of chiropractic treatment in post operative spinal pain and the impact spinal pain has on the general public is a public health concern. Furthermore, chiropractic in the United States of America (USA) has been shown to be more cost-effective for the treatment of low back pain of non-pathological origin (Haas et al. 2005). The concept of public health is to improve the health and safety of the community through education and research on disease and injury prevention. Based on the findings of these studies, an argument could be made for the transition of chiropractic from a mainly private practice base to one that would enable it to reach to the wider population in the public healthcare sector. This will be beneficial to both patients, for example cost-effectiveness; less dependence on drugs and the chiropractic profession, for example more exposure; greater



legitimacy (Gedin et al 2017). The perceptions of chiropractors on the integration of chiropractic in the public healthcare sector would facilitate this integration as they would help in defining the role of chiropractic in such a setting (Salsbury 2017). The perceptions of the chiropractors would help establish the current status of the chiropractic profession and the knowledge the chiropractic profession has on the public healthcare sector, to determine the current strengths and weaknesses of the profession to integrate into such an environment.

## **1.2 AIM OF THE STUDY**

The aim of the research study was to explore and describe the perceptions that chiropractors have about the integration of the chiropractic profession into the South African public healthcare sector.

## **1.3 OBJECTIVES OF THE STUDY**

The objectives of the study were to:

- Explore and describe the perceptions of chiropractors about the integration of the chiropractic profession into the public health sector.
- Provide recommendations on the integration of chiropractic profession into the public healthcare sector of South Africa.

## **1.4 RESEARCH QUESTION**

What are the perceptions of chiropractors in the eThekweni Municipality on the integration of chiropractic into the public healthcare sector of South Africa?

## **1.5 SIGNIFICANCE OF THE STUDY**

In regions where chiropractic has been incorporated into the public healthcare sector viz. the USA, the United Kingdom (UK) and Europe, it has become popular

and vastly pursued by the community (American Academy of Hospital Chiropractors 2013). Chiropractic in South Africa is becoming more acknowledged by conventional medicine, due to the increase in research on chiropractic treatment but also with the use of evidence-based practices (Myburgh and Mouton 2007). In light of this it has not yet been incorporated into the public health sector, due to the long history of segregation between chiropractic and mainstream medicine. Therefore, it will be in the best interest of the profession to gain acceptance into the public health domain so that the profession can continue to grow as the government is attempting to enhance the services provided by this sector. The National Health Insurance (NHI) is a financing system that will make sure that all citizens of South Africa are provided with essential healthcare (NHI 2011). It is the intention of the government to implement it to make healthcare affordable to all citizens and bridge the gap between private and public health and ensure access to adequate healthcare facilities to all its population. The results of this study can assist in providing an understanding of the current status of chiropractic in the integration into the public healthcare sector of South Africa. The results can provide information that can start a platform from which to work. The researcher hopes to further uncover matters within the chiropractic profession that may have previously been overlooked, therefore assisting the development of the practice of chiropractic in the public health sector of South Africa.

## **1.6 DELIMITATIONS**

It was assumed that all participants of the study answered the questions honestly, correctly and openly, thereby allowing the researcher to obtain the best assessment of the perceptions held by the chiropractic participants themselves although this does not represent the entire population of chiropractors in South Africa. The participants were chiropractors from the eThekweni district.

## **1.7 SCOPE OF THE STUDY**

Semi structured interviews were conducted with ten selected chiropractors from the eThekweni municipality. The information was digitally recorded, with written

consent from the participants and then transcribed. Themes were then identified from the transcribed data and discussed in this dissertation.

## **1.8 STRUCTURE OF THE DISSERTATION**

**Chapter 1:** The background, context and research problem are described. The aim, research questions and the scope of the study are also presented in this chapter.

**Chapter 2:** The relevant literature review pertaining to the topic is extensively described in this chapter.

**Chapter 3:** The research design, methodology, collection and analysis of the data are comprehensively described in this chapter. The chapter concludes with the ethical principles followed in this study.

**Chapter 4:** The results of the data analyses are presented in this chapter in the manner relevant to qualitative research.

**Chapter 5:** The results of the study are discussed and compared to previous relevant studies. Recommendations are made for initiating the path for incorporating chiropractic in the public healthcare sector of South Africa.

**Chapter 6:** The overall conclusions and limitations of the study are presented. The chapter ends with recommendations for future studies.

# CHAPTER TWO

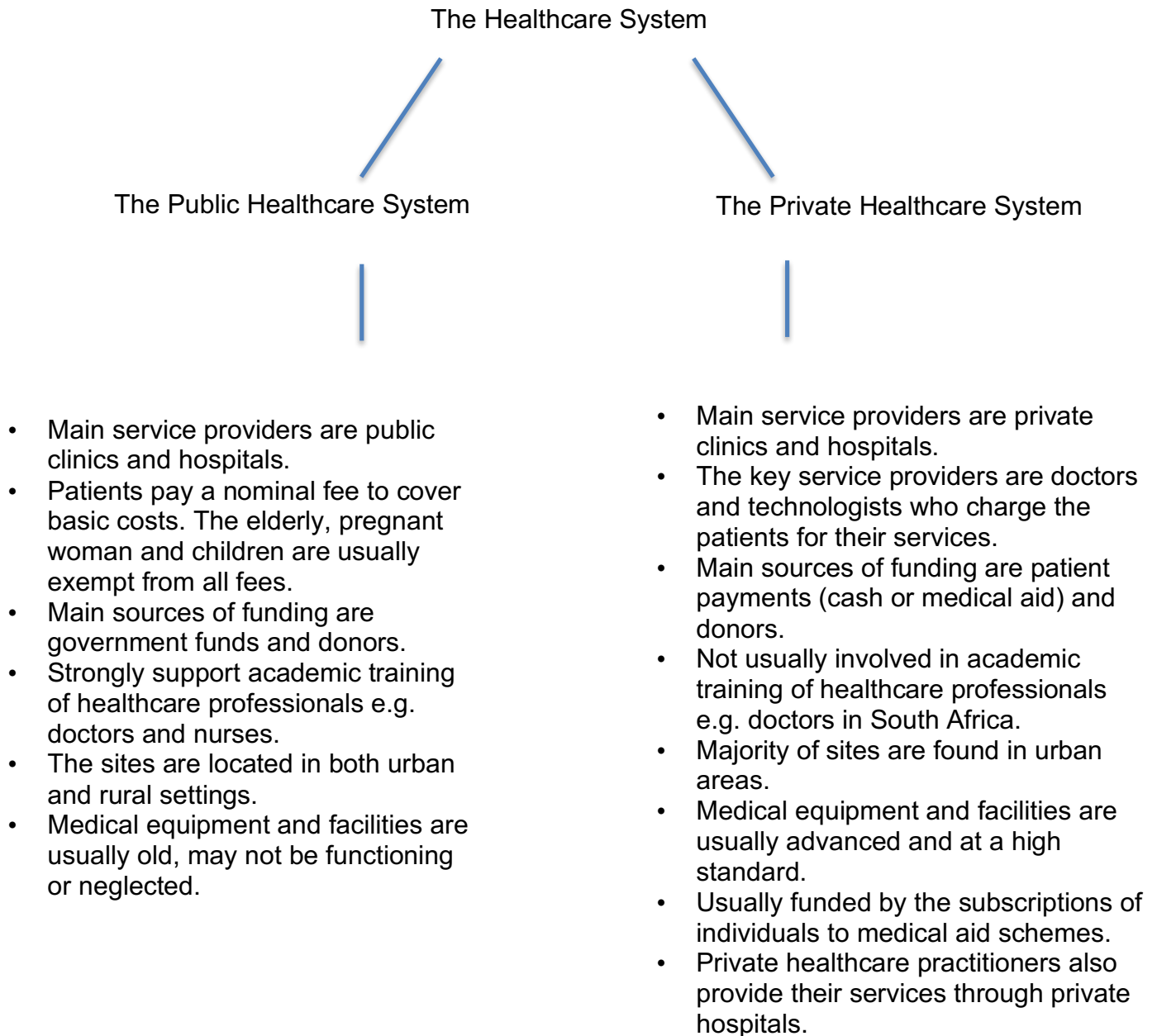
## LITERATURE REVIEW

### 2.1 INTRODUCTION

This chapter presents the relevant literature on the public health sector of South Africa and the integration of chiropractic into public health. A brief history of chiropractic and the public healthcare structure within South Africa and globally is also provided.

### 2.2 HEALTHCARE IN SOUTH AFRICA

Healthcare in South Africa is of two types viz. the public healthcare sector, that largely caters for the low-income segment of the population and the private healthcare sector that caters to the majority of the middle to high-income members of the population. A brief description of the two healthcare systems is shown in **Figure 2.1**. There is a considerable shortage of healthcare professionals and resources in the public healthcare sector which is in contrast to that of the private healthcare sector (Healthcare in South Africa 2012).



**FIGURE 2.1 Structure of the Healthcare System in South Africa**  
(Adapted from Healthcare in South Africa 2012)

The structure, funding, legislation and the strengths and weaknesses of public healthcare in South Africa are described below.

### **2.2.1 Legislation of the public healthcare system and chiropractic**

The public healthcare system of South Africa is legislated under the National Health Act, 2003 (Act 61 of 2003). This act emphasises the responsibilities and rights of the healthcare workers and patients and promotes a larger community to take part in healthcare delivery, which extends from small health facilities up to a national level. The Act makes provisions for provincial health services and enforces the functions of the provincial health departments. It also allows for patient access to medical and emergency care, knowledge of their condition and exercises their right to informed consent.

### **2.2.2 Structure of the public healthcare sector in South Africa**

The structure of the public health sector in South Africa is comprised of five components.

#### **The human resource component**

This workforce comprises either healthcare professionals, such as doctors and nurses in the clinics and hospitals or as support staff for administration, facility maintenance, health professional training, ambulance and other patient transport (Benatar et al. 2004).

#### **The cultural component**

Each health system has a cultural element, which is composed of three components. The first is a cognitive or knowledge system. This is the manner in which health professionals deliver care through knowledge, medications, opinions and discernment. The second component is a normative system exhibiting ethical codes, health rules and regulations and rules for conduct for health professionals

and other staff. Lastly it includes the technical instruments which are used by various health professionals for diagnosis or for treatment (Benatar et al. 2004).

### **The political-administrative component**

This is concerned with the ordering, regulation and organisation of the health system. It consists of policy, planning, legislation, decision-making, management, control and administrative systems. This component is closely linked with the political structure of society as it reflects the nature of the existing political or governmental administration of the country concerned (Benatar et al. 2004).

### **The financial-economic component**

This refers to the manner in which financial and economic matters are well-ordered and controlled (Benatar et al. 2004). The majority of health-sector funding comes from the South Africa's National Treasury. In 2011, the total spent on health was R248.6-billion, which was estimated to be 8.3% of the gross domestic product (GDP) of South Africa. This is above the 5% of the GDP suggested by the World Health Organisation (WHO 2005). Regardless of this high outlay, healthcare delivery to patients remain reduced when compared to comparable middle-income countries. This can be largely attributed to the inequities between the public and private sector as described earlier (Healthcare in South Africa 2012).

### **The care component**

This comprises of six modalities of prevention, diagnosis, treatment, rehabilitation, and custody and health education. It also includes the sustaining service units that are not directly connected to healthcare release but part of the service structure and mediate and facilitate care to patients; these include the pharmaceutical manufacturing and medical research organisations. Lastly it includes the tangible care contexts through which healthcare delivery takes place such as hospitals, surgeries, intensive care units, clinics and pharmacies (Benatar et al. 2004).

### **2.2.3 Funding**

The public healthcare system is funded by five main sources viz. government, households, employers, donors and non-government organisations. In South Africa, the government is the biggest provider to public health care, contributing over 8% of the GDP. The government retrieves money from income, tax from companies and sales of utilities such as electricity and water (Benatar et al. 2004). A significant portion of the funds are spent on HIV treatment as the population infected is dramatically increasing. Patients with HIV are at a greater risk of infectious diseases and this places an even larger burden on resources within the public healthcare sector (Benatar et al. 2004).

### **2.2.4 Strengths and challenges of the public healthcare system**

The strengths within the public health sector over the past fifteen years are documented below.

- Free primary healthcare is provided to the low income population of South Africa, although there is sometimes a nominal administration fee that patients may have to pay.
- Antiretroviral medications programme for patients with HIV.
- Compulsory community service for graduating health professionals, this helps to increase the number of healthcare workers as community service is done for 2 years as a doctor and 1 year as a nurse. They can then move onto the private healthcare sector or stay within the public healthcare sector, but most favour the private sector.
- Enhanced immunisation schedules for infants and children from birth to 6 years old, and greater access to vaccines of varicella, mumps, poliomyelitis, measles and rubella to name a few.
- Clinic growth and development, in an attempt to bring healthcare to the rural areas of South Africa (Harrison 2009).

The public healthcare sector in South Africa has faced considerable challenges, especially over the past fifteen years. These include:



- The emergence of multi-drug resistant tuberculosis (MDR-TB) and extremely drug resistant tuberculosis (XDR-TB). This is compounded by the co-infection with HIV infection which contributes to the increased burden that is placed on medical resources.
- Incorrect expenditure patterns in comparison to a high demand for healthcare. Funds are not correctly spent on what is needed for patients as the healthcare spending has kept up with inflation and population growth but not necessarily with the prevalence of illnesses such as HIV/AIDS among the population.
- Fewer health professionals in the public sector as the majority of health professionals serve in the private sector. The public healthcare sector needs more health professionals to achieve the same number of practitioners per person as are practicing in the private healthcare sector. This will relieve the pressure as there will be less patients per practitioner (Healthcare in South Africa 2012).
- High volume of people in relation to lack of staff and practitioners. The public healthcare sector fails to operate efficiently, therefore staff can't manage their workloads.
- Poor management and administration due to lack of staff, and high patient numbers (Harrison 2009).

Healthcare in South Africa differs from the most basic primary healthcare (PHC) which is offered free by the state, to the highly specialised and modern health services that are available in both the public and private sector (NHI 2011). The public sector is strained and lacking in resources in certain parts of the country. While access has improved, the quality of healthcare has fallen due to healthcare professional shortage. The situation is compounded by public health challenges, including the burden of diseases such as HIV and TB, and a shortage of key medical personnel (Mayosi et al. 2012). There are approximately 4 200 public healthcare facilities in South Africa (Healthcare in South Africa 2012). In March 2012, 165 371 qualified health practitioners in both public and private sectors were registered with the Health Professions Council of South Africa (HPCSA), the health practitioner professional body. This includes 38 236 doctors and 5 560 dentists. About 1 200 medical students graduate annually. In some communities, medical students provide health services at clinics under supervision. Newly graduating doctors and pharmacists complete 2 years of compulsory community

service in understaffed hospitals and clinics (Healthcare in South Africa 2012). However, the South African government is responding with a broad modification plan to revitalise and reorganise the South African healthcare system by introducing the NHI.

### **2.2.5 National Health Insurance**

The intention of the NHI, which is a financing system, is to ensure that all citizens of South Africa are provided with essential healthcare (NHI 2011). The South African government seeks to implement it to make healthcare affordable to all citizens and bridge the gap between private and public health and ensure access to adequate healthcare facilities to all its population (NHI 2011). The challenges facing the implementation is that South Africa faces a huge burden of disease, HIV/AIDS and TB, maternal and childhood diseases, non-communicable diseases and violence and injuries. This is further compounded by the shortage of key medical personnel and resources in the public health sector as well as the present underperformance of the public health institutions (Naidoo, 2012).

## **2.3 THE ORIGINS OF CHIROPRACTIC AND PHILOSOPHY**

Chiropractic was developed by Daniel David (D.D) Palmer over 120 years ago (Palmer 1910). He was influenced by the founder of osteopathy, Andrew Taylor Still (Baer 2006). He went on to develop chiropractic combined with the understanding of neurology (Palmer 1910). D.D Palmer opened the first school of chiropractic in Davenport, Iowa (USA) in 1897. The principle cause of all disease was the subluxation and chiropractic students were taught to locate it on a patient. These chiropractors were called “straights” and concentrated on spinal manipulation only. Opposing schools were opened and here the vertebral subluxation was seen as one of the causes of diseases in addition to several others. A vast array of treatment methods were taught in addition to chiropractic manipulation for patient management (Palmer 1910; Chapman-Smith 2000; Keating et al. 2004). Students from the rival schools were called “mixer”

chiropractors and went on to seek the integration of chiropractic into mainstream medicine (Carey et al. 2005).

## **2.4 CHIROPRACTIC LEGISLATION**

For many years chiropractic was predominantly practiced in the USA (Chapman-Smith 2000). The development and progression of the profession was reliant on the increase in the number of chiropractors in the USA, as there were a small number of countries that recognised the practice of chiropractic (Chapman-Smith and Cleveland 2005; Phillips 2013). Today, the regulation and licensing of the chiropractic profession has become extensive and spread globally. Licensing of a profession contributes to its validity (Sandefur and Coulter 1997).

The practice of chiropractic is acknowledged and overseen by law, or recognised by the national authorities in more than 40 national jurisdictions, where the right to practice is legislated (Phillips 2012). The majority of legislation establishes the scope of practice for chiropractors as primary care physicians. The scope of practice for chiropractors according to the Allied Health Professions Council of South Africa (AHPCSA) is:

- The physical examination of any person, with or without taking, reading and interpreting of x-rays, for the purpose of diagnosing any physical defect, illness or deficiency in such person
- The treatment and prevention of any physical defect, illness or deficiency related to spinal, pelvic, spinovisceral and general neuromusculoskeletal in any person by
  - Manipulation or adjustment
  - Electrotherapy
  - Exercise therapy
  - Hydrotherapy
  - Traction therapy
  - Thermal therapy
  - Vibration therapy
  - Immobilisation therapy

- Neuro-muscular reflex therapy
- Message therapy
- Acupuncture or acupressure therapy
- Remedies, dietary advice or dietary supplementation (South Africa, AHPCSA 2015:7-8).

The AHPCSA is a statutory health body established in terms of the Allied Health Professions Act (Act 63 of 1982), in order to control all allied health professions, which includes chiropractic (AHPCSA 2010). Legislation internationally varies but normally provides for direct patient contact without medical referral. The legislation in each country defines the scope of practice of chiropractic, which includes the ability to diagnose. It also allows for the establishment of a regulatory body for chiropractic, and restricts use of the title chiropractor to persons who meet precise educational requirements and are registered or licensed according to legislation. Chiropractors rights to perform or order diagnostic tests, which include spinal imaging and laboratory tests, differ by country. With respect to responses in the World Federation of Chiropractic (WFC) survey from countries with chiropractic legislation, the majority allowed the taking or ordering of plain film imaging (20 of 29 or 69%) and laboratory tests (18 of 29 or 62%), and the ordering and reading of magnetic resonance imaging (11 of 29 or 38%) (World Federation of Chiropractic 2012).

In South Africa, there is legislation preventing mainstream healthcare providers who are registered with the HPCSA from sharing a room with complimentary alternative medicine (CAM) providers registered with the AHPCSA as documented in the Health Professions Act 56 of 1974 (AHPCSA 2010). The implications of this legislation will hinder the integration of chiropractic into the public healthcare sector in South Africa. The profession will need to make a strong case for this legislation to be altered.

## **2.5 TREATMENT PROVIDED BY CHIROPRACTORS**

Chiropractors mainly provide treatment for neuromusculoskeletal disorders (Salehi et al. 2015). Most patients, as well as members of the general public,

acknowledge chiropractors to be spinal experts (Schneider et al. 2016). Chiropractic treatment employs the use of short lever, high velocity, low amplitude manipulative techniques to restore normal vertebral motion and alignment (Christensen et al. 2010). Chiropractors also employ the use of adjunctive auxiliary procedures in addition to spinal manipulation for successful treatment of neuromusculoskeletal disorders. The philosophical orientation of the practitioner as “straights”, where a more classical approach to treatment is taken, would result in the focus being on spinal manipulation with limited or no use of adjunctive procedures; whilst “mixers” would integrate a variety of modalities in combination with adjustments (Palmer 1910; Chapman-Smith 2000; Dagenais et al. 2015). Commonly used adjunctive auxiliary techniques include active procedures such as rehabilitation and corrective exercises to passive techniques including trigger point therapy, cryotherapy, therapeutic ultrasound, electrical stimulation and thermal modalities. Chiropractic care can also involve wellness care and health promotion through nutritional advice and exercise information (Mootz et al. 2007; Christensen et al. 2010; Keyter 2010).

The basic treatment offered by chiropractors is relatively quick and inexpensive (Passmore et al. 2015) and patients report high levels of satisfaction with the treatment they receive (Passmore et al. 2015; Dagenais et al. 2015). Studies have also reported that chiropractors show more confidence when treating spine pain as compared to medical physicians (Dagenais et al. 2015). Chiropractic care is considered cost effective and safe (Passmore et al. 2015; Dagenais et al. 2015) as there is a low percentage of adverse reactions that arise due to chiropractic treatment (Passmore et al. 2015). Chiropractors employ the use of diagnostic imaging such as x-rays, also laboratory tests such as routine blood tests (Dagenais et al. 2015). In South Africa, the majority of medical schemes make provision for reimbursement of chiropractic services. The Compensation for Occupational Injuries and Diseases Act, (Act 130 of 1993) provides for complete reimbursement of cases treated by registered chiropractors. The typical use of chiropractic care by knowledgeable patients is to seek care during flare-ups of pain and limiting the care to a few treatments per episode. Using this level of restraint, chiropractic care is less expensive than other treatment options where a series of examinations, medication and diagnostic procedures are often routinely utilised (AHPCSA 2010).

## **2.6 CHIROPRACTIC AND INTERNATIONAL TRENDS ON INTEGRATION**

Chiropractic care has long been considered marginal to the mainstream healthcare system (Manga, 2000). In South Africa, most chiropractors work in the private sector (CASA 2011) which caters for middle and high income earners who tend to be members of medical aid schemes. Recently, the situation in the United Kingdom (UK) has changed, with opportunities arising for chiropractic services to be offered within the National Health Service (NHS) (Pollentier and Langworthy 2007). In the UK, a government committee was tasked to report to ministers on standards of care, access and availability of services for NHS patients. It was stated that general practitioners (GPs) should be referring patients to qualified chiropractors, osteopaths or physiotherapists for acute back and neck pain that does not resolve in a few weeks. This means that there is a shift of resources to primary care for the treatment of back pain. The reason for this was to decrease costs for both the NHS and the Department of Social Security (DSS) by prevention of chronic disability and work loss. The referrals led to fewer sick notes, fewer GP consultations per patient, fewer referrals for specialist care, lower drug costs, faster access to treatment and faster recovery times. (Langworthy et al. 2002).

Chiropractic in the USA has a strong political base, and it enjoys a high degree of patient satisfaction. It is also the best established of the alternative healthcare professions in the USA (Cooper and McKee 2003). The positive changes that came about in the USA included the expansion of the acts and rules affecting its scope of practice, repayments, a better acceptance by both physicians and health plans and a sustained request for chiropractic treatment (Cooper and McKee 2003). Konrad et al. (2004) observed that there was a low relationship satisfaction that exists between chiropractors and GPs. This was due to the poor amount of referrals from GPs to chiropractors. A reason for this can be the uncertainty of GPs on the safety and education of chiropractors as well as the role of chiropractic in healthcare is not clearly defined (Engel et al. 2016). However, there has been an improvement with regards to inter-professional relations in a clinical setting mostly due to patient requests. Chiropractic in Denmark has been acknowledged and accepted as part of the official Danish healthcare system for many years and chiropractors practice as primary care practitioners (Nielsen 2015). Chiropractors that are part of the Danish chiropractors' association (DCA), receive partial

reimbursement from the Danish NHI as the DCA negotiates with the Danish health authorities for this agreement. Chiropractors in Denmark receive referrals from GPs or are self-referrals (Nielsen 2015). Chiropractors in Norway receive partial reimbursement from the Norwegian national health insurance scheme regardless of whether it is a GP referral or self-referral (Westin et al. 2013). The referral rate to chiropractors in Norway is high as the GPs in Norway have a greater knowledge on the chiropractic profession, acute and chronic back pain being the most common reason (Westin et al. 2013).

## **2.7 CHIROPRACTIC EDUCATION IN SOUTH AFRICA**

In South Africa, there are two institutions that offer the chiropractic qualification; Durban University of Technology (DUT) and University of Johannesburg (UJ). (Durban University of Technology Chiropractic Handbook 2014, University of Johannesburg Chiropractic Handbook 2014). The training at these institutions comprises of a grounding in basic medical sciences, chiropractic philosophy and then moving onto more specific fields of human diagnostics and diagnostic imaging. Training also involves a clinical component where students provide treatment for patients that attend the day clinics at both DUT and UJ. However, this is not a hospital environment and the chiropractic clinics follow different procedures and protocols and have a different administration. In the chiropractic clinics, only chiropractic treatment is utilised and there is no interaction with other medical departments or working in a multidisciplinary team. This training does not prepare the chiropractor for work in the public healthcare sector of South Africa in a hospital environment as students receive very minimal exposure to hospital environments. Students also participate in community service where members of the public can receive chiropractic care at no charge. Students are also offered the opportunity to treat patients at sports events, under supervision of a clinician, and within a multidisciplinary team. Exposure to a hospital environment is minimal for a chiropractor training in South Africa. The research component is a project an individual student carries out to obtain a master's degree in chiropractic which is mandatory for registration as a chiropractor in South Africa. This research contributes to the knowledge on chiropractic and for the development of the profession.

In Switzerland and southern Denmark, chiropractors study with the medical students for the first three years before moving onto their own professional courses for their clinical training (WFC 2012). These early educational relationships in these countries help to decrease the barrier between chiropractic and mainstream medicine and allow for improved and well integrated healthcare practitioners and improved communication skills to provide high quality patient care (Puhl et al. 2014).

## **2.8 THE ROLE OF CHIROPRACTIC IN HEALTHCARE**

Every year, 15% of Americans will visit their doctor for back pain and this number has been rising over the past decade (Haneline and Meeker 2011). There is a high burden of musculoskeletal disease (MSD) to society and public health. Musculoskeletal diseases (MSDs) have been reported to account for the primary cause of disability and are liable for more than half of all chronic conditions in people over 50 years of age in developed countries (Haneline and Meeker 2011). The estimated cost of all spine related conditions in 2011 was \$190 billion in the USA and an indirect cost of \$14 billion due to lost salaries as a result of spinal conditions. The total direct and indirect costs associated with all bone and joint health in the USA was projected to be \$849 billion, which accounted for 7.7% of the GDP for that year (Haneline and Meeker 2011). The incidence of low back pain (LBP) has not increased significantly in the last 40 years, but the number of certificates of illness and the benefits paid for disabilities that are caused by LBP has increased drastically (Blanchette et al. 2015). This increase has had a significant impact on the costs due to; salary replacements, healthcare use and a decrease in productivity (Blanchette et al. 2015).

Chiropractic is a healthcare profession concerned with the diagnosis, treatment and prevention of disorders of the musculoskeletal system, and the effects of these disorders on the nervous system and general health (Jones-Harris 2010). Chiropractic has a philosophy on healing that differs from the views of traditional and mainstream medicine in that it does not employ the use of pharmaceutical drugs or surgery. The chiropractic approach to health is holistic as opposed to mainstream medicine that generally does not take a holistic approach to a patient.



This is done by evaluating the patient entirely when assessing and treating a patient's condition or disease. Chiropractic subscribes to the belief that the body has the ability to heal itself in the majority of cases, and that good health does not require the need for pharmaceutical drugs or surgery.

Chiropractors rely primarily upon non-invasive treatment methods and refer patients to medical practitioners should medication or surgery be necessary. Chiropractic treatment focuses on the muscles and joints by employing the use of manual and physical treatments, mostly the use of spinal manipulative therapy (SMT), massage, exercise and nutritional advice (Passmore et al. 2015). Back pain, neck pain and headaches are common debilitating conditions seen by chiropractors (Passmore et al. 2015). In South Africa, Wise (2010) found that the most notable reasons why patients seek chiropractic treatment were musculoskeletal conditions, headaches, pain in general, sports injuries, stress and trauma. Low back pain also is among the most common reasons people, including older adults, seek healthcare, either from primary care medical providers or from complementary and alternative practitioners, including chiropractors (Goertz 2013). In the United States, 31% of Americans reported to have had neck or back pain in the last three months according to the National Health Interview survey done in 2007 (Haneline and Meeker 2011). This was one of the initial attempts to examine the prevalence of lower back and neck pain and co-morbid pathologies. Back pain is the most frequent condition seen by medical doctors and account for 15% of the annual visits to doctors, emergency departments in hospitals, outpatient clinics and hospitalised patients (Haneline and Meeker 2011).

The majority of those in the chiropractic profession have adopted evidence-based practice which is the combination of individual clinical expertise, the best research evidence and taking into consideration the individual patient values. Evidence based practice is important because it provides the most effective treatment that is available and aims to improve the outcomes for the patients. With the move by mainstream and complementary professions to adopt evidence-based practice, there are now extended opportunities for practice for chiropractors globally. These are found in various forms of fully integrated care in primary practice and hospital settings. Chiropractors are now found in multidisciplinary spine care clinics in the Middle East and Latin America. In Denmark, chiropractors are entirely

incorporated into the spine care departments in hospitals and the government and health system authorities view their services as mainstream care. In the USA, chiropractors have been included into the federally-funded veterans' organisation and military hospital systems since the year 2000 (WFC 2012).

In a study of North Carolina patients seeking treatment for acute low back pain from chiropractors, general practitioners and orthopaedic surgeons, it was found that the patients that sought chiropractic treatment reported a higher degree of satisfaction in the treatment and care they received. According to the American Chiropractic Association, chiropractic is now the conservative first choice for pain and a considerable number of the American population choose chiropractic instead of prescription medicine and surgery when managing their pain (Schroeder 2017). Where chiropractic has been fully integrated into the respective country's healthcare system and achieved greatest success is where there is use of evidence-based practice and education, high level of scientific research, and a willingness to work in a collaborative model of care. Working with other healthcare providers in the best interest of patients creates trust and acknowledgement of the value that chiropractors can contribute within the healthcare system. Where chiropractic has been integrated there has been significant improvement in the number of spinal surgeries, decrease in patient visits to general practitioners and hospital admittance rates have decreased due to spinal pain (Brown 2016).

Concerning the status of chiropractic in South Africa, issues such as the absence of a coherent, marketable model of chiropractic practice and poor inter-professional relationships with mainstream healthcare stakeholders were observed (Myburgh and Mouton 2007). The issue of integrated public healthcare practices as part of the education process and the concomitant perceived lack of exposure especially to black South Africans emerged as interesting and pertinent developmental themes in the local context. The patients interviewed responded that the strengths of the chiropractic profession lie in its social desirability and its healthcare utility (Myburgh and Mouton 2007). Two factors seem important in endorsing chiropractic, namely, on the grounds of patient beliefs and philosophical views with respect to healthcare and the model of practice encountered in the chiropractor's office. However, some patients seem confused by the lack of healthcare system integration and consequently display uncertainty of the status

the chiropractor can claim professionally and educationally (Myburgh and Mouton 2007).

The chiropractic profession commenced in 1920 in South Africa, and by 1928 there was conflict between chiropractic and the medical fraternity. This lasted almost 40 years and the development of the profession was delayed due to legal restraints (Myburgh and Mouton 2007). In 1971, a bill was passed that closed the register to chiropractors and chiropractic students which ended the prospect of further growth of the profession in South Africa (Brantingham and Snyder 1999). However, the registers were reopened in 1982 but by then the number of chiropractors in South Africa had decreased substantially (Till 1997). The Allied Health Professions Act No. 63 of 1982 was established by the AHPCSA (AHPCSA 2017) which wrote chiropractic into law and allowed for new chiropractors to register and developed a teaching program for chiropractic (Brantingham and Snyder 1999).

With integration into the public healthcare sector comes a wealth of learning experiences for the chiropractic practitioner. Chiropractic students have minimal exposure to hospital settings because there are limited opportunities for chiropractors to train in integrated medical systems, either as students or postgraduates, there are educational deficits that may exist among these providers (Bronston et al. 2015). The public healthcare sector will offer chiropractors the benefit of identifying conditions not often seen in private practice. Chiropractors can make use of their diagnostic training and improve their own skills and patient communication, these two factors being vital for the profession (Hecimovich and Volet 2009). Patients will benefit from chiropractic integration by having access to primary care for acute and chronic back pain and other musculoskeletal complaints as the prevalence of these conditions is high and their complaint can be seen too instead of waiting to go through the GP route. The government will benefit from chiropractic integration by increasing the number of healthcare professionals available and chiropractic treatment is relatively inexpensive. Chiropractic treatment can also prevent unnecessary surgery thereby saving funds to be used elsewhere. In a study done by (Kruse and Cambron (2011), it was found that chiropractic manipulation for post-surgical lumbar spine pain was successful and it was reported that there were no adverse events that

occurred due to the treatment. Patients experienced a significant reduction in pain over their treatment period. Similar findings were found in a study by (Gudavalli et al. 2016) where patients reported a 50% reduction in their pain after low back surgery. The chiropractic programme in South Africa does include a rehabilitation component but is not extensive. Therefore, chiropractic would be more effective in a multidisciplinary setting working with other healthcare practitioners involved in rehabilitation.

There is an overlap when it comes to treatment as previously stated; SMT is practiced in osteopathy, physical therapy and medicine and other modalities such as heat, cold, electrotherapy, lifestyle and rehabilitation are practiced in both chiropractic and other professions (Hecimovich and Volet 2009). Therefore, to be an effective healthcare provider, the skills of successful communication and clinical competency are required (Hecimovich and Volet 2009).

## **2.9 INTERPROFESSIONAL RELATIONSHIPS AND REFFERAL PATTERNS**

Since the chiropractic profession has for a long period been isolated from mainstream medicine, there are few opportunities for multidisciplinary practices (Westin et al. 2013). A patients healthcare choices can be influenced by their GPs. Their perceptions of chiropractic would play an important role in what the public thought about chiropractic (Westin et al. 2013). It was found that the attitudes of a team of medical practitioners showed positive change when a chiropractor was incorporated into their practice (Garner et al. 2008, Branson 2009). Despite the initial negativity, they reported positive experiences and their attitude improved towards the safety of chiropractic and treatment provided by chiropractors. It was also found that patients responded favourably to chiropractic treatment and there was an overall improvement to their practice. This furthermore expanded the understanding of the chiropractic profession and scope of practice (Garner et al. 2008, Branson 2009).

In Switzerland, referral to chiropractors from GPs is more common than in both the USA and the UK combined (Humphreys et al. 2010). The percentage of referrals to chiropractors in Denmark more than doubled from 1999 (23%) to 2002 (51%).

Out of this the number of referrals increased from medical practitioners from 11% in 1999 to 17% in 2002. The remaining referrals were from family, friends and other healthcare professionals (Sorenson et al. 2006).

Improved communication and exchange of information between practitioners from different disciplines may help to improve patient management and increase public confidence in the chiropractic profession (Sorenson et al. 2006). A vast difference in methods of practice and a wide variety of philosophical beliefs may contribute to the misunderstanding of the chiropractic profession within the healthcare system and lead to negative professional relationships with other healthcare professionals. (Brussee et al. 2001).

## **2.10 CONCLUSION**

Improved communication and exchange of information between practitioners from different disciplines may help to improve patient management and increase public confidence in the chiropractic profession (Sorensen et al. 2006). A vast difference in methods of practice and a wide variety of philosophical beliefs may contribute to the misunderstanding of the chiropractic profession within the healthcare system and lead to negative professional relationships with other healthcare professionals (Brussee et al. 2001). The chiropractic profession has expanded internationally from private healthcare to be incorporated into many countries public healthcare sectors. In South Africa, chiropractic is not incorporated into the public healthcare sector. However, in order for the profession to expand and provide quality conservative care to the majority of South Africa's population for back pain and other musculoskeletal complaints, the profession needs to enter the public healthcare domain. It is not known if South African chiropractors are aware of their role in a public healthcare setting. Therefore, the main research question of the study was "What are the perceptions of chiropractors in the eThekweni Municipality on the integration of chiropractic into the public healthcare sector of South Africa?"

# **CHAPTER THREE**

## **RESEARCH DESIGN AND METHODOLOGY**

### **3.1 INTRODUCTION**

This chapter covers the study design, methodology used, sampling procedures employed, inclusion and exclusion criteria, methods employed and data analysis.

### **3.2 STUDY DESIGN**

This study was qualitative, exploratory and descriptive in nature using semi-structured interviews.

#### **3.2.1 Qualitative research**

Qualitative research is constructed to expose a target audience's range of behaviour towards a specific topic or issue and the perceptions that drive it. Qualitative research uses in-depth study methods of small groups of people to guide and support the development of hypotheses. The results of qualitative research are descriptive rather than predictive (Qualitative Research Consultants Association 2016). This method was used in this research as the dynamic nature of the interview allowed the researcher to engage with the participants more actively than would be possible in more structured interview designs and surveys. The qualitative design also allowed for the use of the probe, which allowed the researcher to gather more information than what was given on their initial responses.

### **3.2.2 Exploratory research**

Exploratory research is defined as the initial research into a theoretical idea. This is where a researcher has an idea or has observed a phenomenon and attempts to understand more about it. Exploratory research can explain what is being observed by the researcher by a currently existing theory or it can lay the foundation for future research (Purposes of research: Exploratory, descriptive and explanatory 2016).

### **3.2.3 Descriptive research**

A descriptive study attempts to illustrate methodically a problem, situation, service or an experience. The main function of such a study is to explain what is prevalent with respect to the problem under investigation (Kumar 2011). This research design was chosen to permit the chance to investigate the experiences of the participants that were studied.

## **3.3 RESEARCH SETTING**

The research was conducted in the eThekweni Municipality. Data were collected from chiropractors that were in practice for three years or more. The interviews were done in the natural environment in which the chiropractors worked i.e. their private practice. The study population was all chiropractors who are registered with the AHCSA and who are practicing in the eThekweni district of KwaZulu-Natal. This totalled 110 chiropractors ( AHPCSA 2017).

## **3.4 SAMPLING PROCESS**

Purposive sampling was used, as individuals were specifically targeted for being a chiropractor in the eThekweni municipality. In purposive sampling the researcher selected participants based on personal judgement about which participant would most benefit the study (Polit and Beck 2012). In quantitative research, the researcher decides in advance how many subjects to include in the study. Qualitative research uses the principle of saturation, which occurs when themes in

the data become repetitive and unnecessary, in such a way that no new information can be gathered by further data collection (Polit and Beck 2010). When additional data collection provides no new information, but only a repeat of the previous data, this is the point at which the researcher will know that data saturation has been achieved. In this study, data collection continued until data saturation was reached after interviewing ten participants.

### **3.5 INCLUSION AND EXCLUSION CRITERIA**

#### **3.5.1 Inclusion criteria**

- Chiropractors who practiced within the eThekweni Municipality for three years or more. This was to ensure chiropractors had sufficient clinical experience and knowledge.

#### **3.5.2 Exclusion criteria**

- Failure to obtain informed consent.

### **3.6 DATA COLLECTION PROCESS**

Data collection is the method of obtaining the participants and gathering the information for the study (Burns and Groves 2007). The gathered or collected data is the primary data as it is the direct information collected from participants and the data already available is the secondary data (Kumar 2011). The most frequently used data collection approach in qualitative research is an interview. An interaction between two people that is face-to-face or other in order to obtain information is called an interview. In-depth interviews were used for this study (**Appendix 1**). In this situation, it is possible for the researcher to gather in-depth data by use of probes (Kumar 2011). The researcher obtained permission from the AHPCSA to interview the chiropractors (**Appendix 2**). The participants were approached by the researcher either by telephone or electronically. Interviews were conducted at the participants preferred location and time. The interviews



were recorded electronically by a digital voice recorder. Permission was obtained from the participants for the use of a digital voice recorder in the informed consent. The point of saturation was reached after eight participants and a further two were interviewed to confirm saturation. The set of topics discussed were:

- Questions related to the role and scope of chiropractic
- Questions related to the key developmental issues affecting integration
- Questions related to the future of chiropractic

These questions show the importance of highlighting the issues in the chiropractic field that may not have been considered previously in order to facilitate the development of chiropractic. The same questions were asked to each participant but the responses of the participants were not fixed. An interview guide was used by the researcher at each interview to ensure the same set questions were asked of the participants. The participants were free to disclose their own personal opinions and experiences. Each interview lasted approximately 30 minutes.

### **3.7 PRE-TESTING OF THE DATA COLLECTION TOOLS**

A pre-test study was conducted to test facets of the interview guide and to allow for the necessary alterations before the final obligation to the interview guide. Three chiropractors that are employed in the Department of Chiropractic at the Durban University of Technology (DUT) as part time lecturers were selected as pilot participants. These participants did not participate in the main study. The findings of this pre-test was that the participants found the questions to be too long and they could not remember the entire question; therefore, they had to ask for questions to be repeated a number of times. This was taken into consideration and the questions were shortened and made into manageable question lengths. The voice recorder device was also tested by the researcher by performing an informal conversation with a colleague to ensure the interviews were recorded accurately and clearly.

### **3.8 DATA ANALYSIS**

The interviews were conducted in English. The data was recorded electronically by the researcher and then transcribed into a Microsoft document. The researcher then analysed the data using thematic analysis. The steps in thematic analysis are:

- Familiarisation with the data.
- Generation of codes.
- Search for themes.
- Reviewing the themes.
- Naming the themes.
- Production of the report (Thomas and Harden 2005).

During the data analysis, the researcher focused on identifying themes from the interview data that were collected. As themes began to emerge the researcher was then able to code for the data. A narrative was then constructed which was a description of all the data collected. Through the narrative the researcher was able to gather the data and provide interpretations of the data that allowed for insight into the topic under investigation.

### **3.9 TRUSTWORTHINESS**

To ensure trustworthiness in this study the following criteria were used; credibility, dependability, confirmability and transferability.

#### **3.9.1 Credibility**

Credibility refers to the confidence in the truth of the data and the interpretations of them (Polit and Beck 2006). There are various techniques for improving and documenting the credibility of qualitative data. The first is prolonged engagement, which is the investment of sufficient time in the data collection process and by building trust and rapport with the participants. Information was probed during the

interviews to ensure that data saturation was obtained. To create assurance in the findings, during the transcription, the voice recordings were repeated numerous times to ensure that all information was included. Member checks were used to determine if the data received by the researcher, once interpreted, was in keeping with participants' views.

### **3.9.2 Dependability**

Dependability refers to data stability over time and over situations (Polit and Beck 2012). Therefore, the interviews need to be consistent and the same questions need to be asked to each participant. This was done with the use of a questionnaire that the interviewer used at each interview with each participant. The data from the recorded voice interviews and supporting documentation were retained for safe keeping and future reference.

### **3.9.3 Confirmability**

Confirmability refers to the objectivity or impartiality of the data i.e. the possibility for the correspondence between two or more independent people about the data's accurateness, significance or importance (Polit and Beck 2012). Subsequent to the transcription of the voice recorded interviews, participants were given a chance to evaluate the transcribed interview and questioned whether it was an accurate expression of his or her opinions regarding the integration of chiropractic into public health. The researcher's analysis was reviewed by the research co-supervisor who participated as an autonomous coder. The themes and sub-themes identified by the researcher were compared to those of the research supervisor. There were no significant differences identified between the evaluations of the data.

### **3.9.4 Transferability**

Transferability refers to the extent to which the findings from the data can be conveyed to other situations or groups. It can also be equated to generalisability (Polit and Beck 2012). Transferability was ensured by the researcher by providing adequate descriptive data in the research report for readers to evaluate the applicability of the data to other settings.

### **3.10 ETHICAL CONSIDERATIONS**

The Belmont Report is one of the leading works concerning ethics and healthcare research. Its main purpose is to protect subjects in research studies. The report consist of three principles; beneficence, justice and respect for persons . Any qualitative study, like all the forms of research, is subject to Codes of Ethics and good practice for the protection of the participants (Polit and Beck 2012). Ethical codes are based upon generally accepted moral values of respect for individual beneficence, respect for human dignity and justice. To ensure ethical consideration, these three broad principles on which standards of ethical conduct research are based were used (Polit and Beck 2012). The protection of human rights was important and the research was guided by the principles of respect for people, beneficence, and justice. Participants had the right to be informed about the study, the right to freely decide whether to participate in the study, and the right to withdraw at any time without consequence. Based on this study design this research was approved by the Faculty of Health Sciences Research and Ethics Committee (**Appendix 3**) indicating that the research protocol satisfied the ethical requirements set out by the Faculty of Health Sciences. Permission was granted by the Registrar of the AHPCSA for the chiropractors to be interviewed (**Appendix 2**).

### **3.10.1 Beneficence**

According to Polit and Beck (2010) beneficence imposes a duty on a researcher to minimise harm and maximise benefits. The well-being of the participants need to be protected whether it is physical, emotional, social, financial or legal. The right to be protected from harm and uneasiness was ensured as participants were not put at any risk of impairment or injury. This research was approved by the DUT Institutional Research and Ethics Committee (IREC), **Reference:REC 94/14**, before it was conducted (**Appendix 3**). The study, its significance and the manner in which it would be conducted was explained to the participants (**Appendix 4**). The reason, procedure of data collection and analysis and how the results would be distributed were explained to the participants. The participants were given the opportunity to question the research process before providing consent to participate in the research and they were informed that they could withdraw from the study at any time without consequence (**Appendix 4**). The researcher ensured the participants of privacy of the conducted interviews by meeting at a location that was comfortable for the participants.

### **3.10.2 Respect for human dignity**

The participants were given the opportunity to make an educated choice on whether to participate in the study or not. This was done by the researcher providing the participant with detailed information regarding the nature of the study, including the purpose of the study as well as the consequences of participation or denial to participate (**Appendix 4**). The possible benefits and risks involved were also explained. Following this explanation, the participants were requested to voluntarily sign a written informed consent; this was witnessed by the researcher and countersigned as a witness.

### **3.10.3 Justice**

Justice refers to the right of the participant to fair treatment and the right to privacy (Polit and Beck 2010). The interviews were conducted at a location that was selected by the participant at a time that was suitable for them. The participants'

details were not made available on the transcription documents and the participants had the right to provide information or withhold information. The participants had the right to ask questions at any time and withdraw from the study if they wished to.

# CHAPTER FOUR

## PRESENTATION OF THE FINDINGS

### 4.1 SELECTED DEMOGRAPHIC DATA OF THE PARTICIPANTS

A total of 10 participants were interviewed. Four participants had some experience in the public healthcare sector; of these, three previously worked in the public healthcare sector before moving to private practice and one was currently involved in both the private and public healthcare. The gender, number of years of experience and area practice of participants are shown in **Table 4.1**.

**Table 4.1: Selected demographic data of the participants**

Participant	Gender	Years of experience	Area of practice
1	Male	18	Westville
2	Female	10	Durban Berea
3	Male	10	Morningside
4	Male	12	Durban North
5	Female	6	Reservoir Hills
6	Female	15	Hillcrest
7	Male	18	Durban North
8	Female	7	Westville
9	Male	19	Umhlanga
10	Female	16	Durban Berea

### 4.2 MAJOR THEMES

After analysing the data, the following three themes were identified:

**Theme 1:** Role of chiropractic in the public healthcare system.

**Theme 2:** Integration of chiropractic to public healthcare system.

**Theme 3:** Challenges facing chiropractors in the public healthcare system.

These are shown in **Table 4.2**.

**Table 4.2: Overview of the themes and sub-themes**

<b>Theme 1</b>	<b>Role of chiropractic in the healthcare system</b>
Sub-theme 1.1	Primary contact for neuromuscular medicine.
<b>Theme 2</b>	<b>Integration of chiropractors into the public healthcare sector</b>
Sub-theme 2.1	Relief of overworked healthcare workers.
Sub-theme 2.2	Decrease costs in surgical and medication use.
Sub-theme 2.3	Increased learning opportunities.
Sub-theme 2.4	Use of chiropractic in post-surgical care.
Sub-theme 2.5	Need for pre-surgical assessment.
Sub-theme 2.6	Integration facilitated by CASA.
<b>Theme 3</b>	<b>Challenges facing chiropractors in the public healthcare sector</b>
Sub-theme 3.1	Opposition from medical doctors.
Sub-theme 3.2	Opposition from within the chiropractic profession.
Sub-theme 3.3	Inability to function as the primary practitioners.
Sub-theme 3.4	Unfamiliar structure of the public health care sector.

CASA = Chiropractic Association of South Africa

### **4.3 PRESENTATION OF THEMES AND SUB-THEMES**

The results of this study are presented along the themes and sub-themes that were derived from the analysis of the interviews. Three themes that emerged from this study are presented in **Table 4.2**. Relevant direct quotes are provided to substantiate the results.

#### **4.3.1 Role of chiropractic in the healthcare system**

The role of chiropractic in the healthcare system was described by the participants as treating neuromuscular conditions without medicine or surgery and providing diagnostic skills to patients. This is evident in the following statements (St):

*St1 "...musculoskeletal specialisation, treating people with mainly mechanical and neurological back and neck pain, who can diagnose and refer appropriately". (Participant 1).*

*St2 "...our main role is treating neuromusculoskeletal conditions that don't require surgery or medication". (Participant 2).*

*St3 "...our role encompasses all aspects of patient care from working with specialists to general practitioners". (Participant 3).*



*St4“...most of us are fulfilling a role as mainly a tertiary type level”.  
(Participant 4).*

*St5 “...being first line healthcare professionals, who are trained in  
diagnostics. We function more as spinal and musculoskeletal specialists”.  
(Participant 5).*

*St6 “...most people use chiropractic for musculoskeletal injuries and pain  
management”. (Participant 7).*

The participants reported that chiropractic is considered as a last resort for treatment of neuromuscular and skeletal conditions. Patients utilise chiropractic care when other medical treatments have failed. The following statements support this:

*St7“...at the moment we are a third choice once other professions fail’.  
(Participant 4).*

*St8“...often when patients have back pain they will consult with an  
orthopaedic surgeon first rather than going to see a chiropractor”.  
(Participant 3).*

The participants stated the role of chiropractic in the public healthcare sector would mostly be on an outpatient basis whereby patients with musculoskeletal conditions would be assessed and then referred if necessary. This would take the strain off the surgical staff and resources if patients can be treated conservatively. This is verbalised in the following voices:

*St 12“...having worked in the public healthcare sector, chiropractic fits into a  
hospital as an outpatients department that requires referral from other  
departments, so there was a bit of triaging of patients. Ideally what I think  
would work best is if all musculoskeletal problems be sent to the  
chiropractic department and then triaged to where they are meant to be,  
World Federation of Chiropractic (WFC) has shown that there are fantastic  
systems within hospitals where they triage in the United States and other  
African countries and that works really well”. (Participant 2).*

*St13“...taking the load off the surgical component of the public healthcare sector and provide adequate conservative care where it is needed”.* (Participant 3).

*St14 “The role that chiropractic would play would be consulting on pre-surgical cases, so deciding whether those cases are actually surgically relevant or not, and where they are not, then managing them accordingly and/or in conjunction with a physiotherapist and biokineticist in a hospital environment”.* (Participant 9).

*St15“...we could effectively become managers of medical outpatients, to screen patients, treat those who need treatment, refer those that need other medication or further evaluation into the system”.* (Participant 10).

#### **4.3.2 Integration of chiropractors into the public healthcare sector**

The participants reported that the integration of chiropractic into the public healthcare sector would contribute to decreasing the workload for healthcare workers in the public healthcare sector. The number of healthcare workers within the public healthcare system would also increase. The following statements support this:

*St1“...public healthcare sector is understaffed, over utilised, under equipped and there is a massive shortfall in supply versus demand”.* (Participant 6).

*St2“...if chiropractors were integrated into the emergency rooms, there would be primary healthcare practitioners that are in the frontline and able to assess and treat conservative cases immediately without referral”.* (Participant 3)

*St3“...the public healthcare system is overburdened as it is. The more practitioners able to assist with diagnostic and referral, the more the better”.* (Participant 5)

*St4“...it would definitely ease the burden that currently physiotherapy departments are experiencing”.* (Participant 9).

The integration of chiropractic in the public health sector would result in decreased cost by reducing pain medication and surgical costs. This is evident in the following statements:

*St5“...I think that it has a multi-faceted approach; it can help save money; it can help educate people; it can actually help treat people”. (Participant 10).*

*St6“...adding to that can actually help in preventing some of the long-term costs that occur”. (Participant 2).*

*St7“...without the time delay and the extra cost that will be incurred with multiple referrals and surgical procedures that are more expensive than a few treatments with chiropractic, there have been many studies done showing the cost effectiveness of chiropractic against orthopaedic and surgical care ”. (Participant 3).*

With integration, comes a wealth of learning experience for chiropractic practitioners as well as an increase in chiropractic awareness within the public community. This is reflected in the excerpts below:

*St8“...I learnt so much from working in the public healthcare system that I would want that for every chiropractor, you really have a broader scope within the public healthcare sector and it improves your own skills”. (Participant 2).*

*St9“...we have a team of competent chiropractors as we stand, and what it is we don't know will be learnt easily”. (Participant 5).*

*St10“...there is a lot that we can learn in public healthcare facilities because you see conditions that we don't see too often in private practice so it makes you a better clinician”. (Participant 7).*

Some participants reported that they are involved in different stages of post-surgical care. These participants stated that post-surgical patients presented on their own account and not by referrals from surgeons. Some participants also stated their involvement in pre-surgical management. This is evident in the following statements:

*St11“...I don't receive patients that have recently had surgery being referred to me, that doesn't happen, however I do see patients that have had surgery in the past but also recently”. (Participant 3).*

*St12“...I see patients for post-surgical care with two weeks once the post-surgical, neurology or orthopaedic consult has taken place, then yes”. (Participant 4).*

*St13“...Yes, post-surgical, on a daily basis. I also refer for surgeries so am involved with both pre-surgical and post-surgical treatments”. (Participant 5).*

*St14“...I have been involved in pre-surgical management and have been approached by at least one medical aid administrator and I am involved with another one at present in terms of pre-surgical management”. (Participant 9).*

Participants were of the opinion that CASA should facilitate the integration of chiropractic into the public healthcare sector. The reason provided by the participants was that CASA has the interest of the chiropractors of South Africa, while the AHPCSA has the interest of the patients and regulates the scope practice of chiropractic in South Africa. This is noted in the quotes below.

*St15“...CASA and the interested chiropractors should initiate this”. (Participant1).*

*St16“...yes definitely at the level of CASA, not at council level, council have the interest of the public whereas CASA has the interest of the chiropractors”. (Participant 6).*

*St17“...CASA, because CASA has the practitioners interest at heart, whereas council has the interests of the public at heart”. (Participant 9).*

#### **4.3.3 Challenges facing chiropractic in the public healthcare sector**

Participants reported that one of the challenges facing chiropractic would be the opposition from medical doctors. This is due to the historical antagonism between medical doctors and chiropractors. Those that were in private practice but had previously worked in the public health sector reported that medical doctors were often ignorant of chiropractic treatment. Participants also perceived that there was a general lack of knowledge about chiropractic in the public healthcare sector and amongst the majority of South Africans. This is evident in the following statements:

St1“...at the moment its more walk-in patients, self-referrals and family”  
(Participant 1)

St2“...when I was at Kimberley hospital, there were some people that had a bigoted opinion about chiropractic”. (Participant 2).

St3“...I feel that South Africa doesn't have the knowledge of chiropractic, there is a lack of awareness of what we do”. (Participant 8).

St4“...some of the challenges are always that there will be certain doctors that are opposed to it and its often more your orthopaedic specialists than your neuro specialist or your physicians or your radiologists”. (Participant 2).

St5“...from the orthopaedic side, there are doctors that are particularly opposed to chiropractic”. (Participant 3).

St6“...I see that there will be animosity amongst the fraternities of physiotherapy and neurology because we are all in the same pot”. (Participant 4).

St7“...I think that at a public healthcare level you have practitioners, nurses and doctors who may not know the benefits of chiropractic”. (Participant 5).

St8“...I think that ignorance in the medical community simply on the account of them not knowing what we do, we are often side-lined and doctors at times will give a negative report on chiropractic care because they don't understand what we do”. (Participant 6).

St9“...I think the challenge will be with the professionals that are within the public healthcare setting, their feeling towards chiropractors being in that setting. I think that would be a challenge... trying to get them to lock on to the idea of chiropractic being around”. (Participant 8).

St10“...ignorance on the part of the patients, on the part of the healthcare professionals as to the role we can actually play, so there would be a significant need for one to educate healthcare professionals”. (Participant 9).

Participants also stated that another challenge would be opposition within the chiropractic profession itself. This is evident in the following statements:

St11“...the number one challenge would be the misunderstanding within our own profession on public health”. (Participant 2).

St12“...chiropractic is very much private healthcare and very limited public healthcare, my reasons for that is historically, chiropractic has been very isolationist and self-containing, wanting to preserve their profession and protect

*it from the medical onslaught. I think that this mentality has remained in chiropractors who identify themselves as different, to identify themselves as a unique group of individuals, and in doing so, pulling themselves away from being included in public health and other facilities". (Participant 10).*

Participants also stated that they were trained as primary practitioners but did not practice as such. Most participants agreed on their ability to diagnose and treat patients accordingly. This is evident in the following excerpts:

*St10"...We are trained to be able to diagnose patients' conditions and there are a lot of patients that are not getting the correct care within the public healthcare sector. They live with conditions without being diagnosed correctly". (Participant 1).*

*St11"...unless we move over to public health, I don't think we are going to fulfil our role or what we are capable of doing, we should have access to hospitals as we have more credentials as opposed to other professions. We have the diagnostic, anatomical knowledge and physiology to support us". (Participant 4).*

*St12"...being first line healthcare professionals, who are trained in diagnostics, we function as musculoskeletal specialists, rather than the primary healthcare role for which we have been trained". (Participant 5).*

*St13"...we have both the diagnostic and treatment capability, and I don't think we as practitioners are effectively using that diagnostic component of our qualification to effectively serve the population". (Participant 10).*

Participants also described the structure of the public healthcare system and stated this would be a challenge for chiropractors. The barriers that the chiropractic has on itself would also be a challenge. This is evident in the following statements:

*St14"...Some of the biggest challenges I found were the nursing staff, and in fact the actual ward managers, who could create quite a lot of political issues, not racial issues, but they were in charge and they wanted people to be subservient, and that was a big challenge that I don't think chiropractors going*

*into the public health sector, that haven't been would realise, that there is a structure and hierarchy". (Participant 2).*

*St15 "...We don't understand that system yet so we need training and it is always best to learn with experience, so more involvement at government hospital level will assist chiropractors to integrate into that system, there is paperwork and administration that we are not familiar with". (Participant 5).*

*St16 "...Well, one has to recognise the barriers the profession has on itself, by knowing what you know and understanding what you do, you create self-made limitations of your own, and understanding those self-made or self-imposed limitations is going to be the biggest challenge. Understanding how a hospital system works, not from the financial and billing, but how patients are referred, when they are referred, what are the criteria, why the criteria are there". (Participant 10).*

# CHAPTER FIVE

## DISCUSSION

### 5.1 INTRODUCTION

The number of participants was ten, which although small, was in keeping with sample sizes of qualitative studies. Previous studies incorporated the perceptions of other healthcare professionals selected for their knowledge (Bar-Gil 2009, Wise 2010). The participants in this study were clinically experienced and were willing to contribute their knowledge and perceptions of chiropractic and its role in the public healthcare sector in South Africa. In a study by Bar-Gil (2009), the perceptions of five chiropractors with similar experience were incorporated along with the perceptions of other selected healthcare professionals.

### 5.2 ROLE OF CHIROPRACTIC IN THE PUBLIC HEALTHCARE SYSTEM IN GENERAL

Participants stated that the role of chiropractic in the public healthcare system in general was the treatment of musculoskeletal disorders with emphasis on neck and back pain. This treatment was described as conservative care that did not require surgery or the use of medication. The scope of practice as regulated by the AHPCSA as well as their philosophical orientation during their studies and post-studies might have influenced the responses of participants.

A few points of disagreements were observed. Although some participants shared similar views on the role of chiropractic in the public healthcare system, others had divergent views. Some participants stated that chiropractic is considered a first line healthcare service (statements 3 and 5), as chiropractors were skilled in diagnostics and physical examination. One participant explained that chiropractic treatment was a third-choice for patients once GPs and orthopaedic surgeons failed to successfully treat their condition. Another participant stated that some



patients would consult an orthopaedic surgeon before deciding on chiropractic treatment as a course for management. The incongruent views between participants does not permit for a clear description on the role of chiropractic within the public healthcare system.

Chiropractic is a healthcare profession concerned with the diagnosis, treatment and prevention of disorders of the musculoskeletal system, and the effects these disorders have on the nervous system and health in general (Jones-Harris, 2010). The public perception of chiropractic is that of a musculoskeletal healthcare profession that is characterised especially by spinal manipulation (Leboeuf-Yde et al. 2005; Hawk et al. 2007). For most chiropractors, public health is the promotion of musculoskeletal and general health of patients (Ford 2013). Chiropractors that adopt the mixer philosophy would envisage themselves contributing to public health by addressing patient education, ergonomics and focusing on targeting specific musculoskeletal aspects of lifestyle including exercise prescription and nutritional advice (Ford 2013).

The role that chiropractic could play in the public healthcare system was described by one participant, who previously worked in the public healthcare sector, as an outpatient service where musculoskeletal conditions can be treated accordingly and referred if necessary. Chiropractic care in the public healthcare sector could potentially decrease the number of spinal surgeries and assist in the physical therapy of patients post-surgically. Chiropractic treatment can prevent unnecessary back surgery thereby saving funds to be used elsewhere (Kruse and Cambron 2011).

The responses by the participants were inconsistent with regards to the role of chiropractic as well as their scope of practice. If chiropractors are to establish a progressive identity, the most appropriate way to achieve this would be to become exclusively musculoskeletal practitioners with a special emphasis on spinal pain (Schneider et al. 2016; Christensen et al. 2010). This will facilitate the integration of chiropractic into mainstream health but also allow for chiropractic to keep its individual identity.

### **5.3 INTEGRATION OF CHIROPRACTORS INTO THE PUBLIC HEALTHCARE SECTOR**

Three of the participants stated that the public healthcare system in South Africa is understaffed. The majority of the participants also stated there would be a decrease in costs to the public healthcare sector if chiropractic was integrated as there have been many models in the US, UK and Denmark to validate the cost effectiveness of chiropractic treatment (Passmore et al. 2015). Three participants also stated that with integration comes a wealth of learning experience for the chiropractor and an increase in awareness of the profession itself. In South Africa, chiropractic education does not incorporate a substantial amount of time dedicated to clinical experience in hospitals. Participants voiced a concern that there is not sufficient clinical skills required to work in the public health sector and expressed the need for more comprehensive training.

The participants were questioned on the role of chiropractic treatment in post-surgical care. Three participants reported treating post-surgical patients. One participant reported the need for chiropractic in pre-surgical assessment as the participant was currently involved with a pre-surgical team at a public health hospital in South Africa. This can allow for preventing unnecessary surgery, avoiding surgery altogether or providing an extended period between diagnosis and surgery.

According to the participants, the integration of chiropractic into the public healthcare sector should be facilitated by CASA. The main reason provided was that CASA has the interest of the practitioners whereas the AHPCSA has the interest of the public. This, however, is not true. One participant stated that CASA, as well as interested chiropractors should initiate the transition from the private healthcare sector to the public healthcare sector. According to Walker (2016), individual chiropractors need to exhibit personal leadership to create change in the profession. This participant previously worked in the public healthcare sector of South Africa as a chiropractor at a state hospital in the Northern Cape province of South Africa. The CASA was established to promote and advance the practice of

chiropractic in South Africa. Membership of this association is voluntary. It has played an integral part in the drafting of legislation of chiropractic in South Africa (CASA 2011).

The interested chiropractors, the individuals that were previously involved or currently involved in public healthcare matters, as well as representatives from both the AHPCSA and CASA should form a working committee to engage with the Department of Health to include chiropractic service in the public healthcare sector. A need for change in healthcare systems around the world has long been documented. Africa is faced with similar calls for health transformation, although the motivators for change are child mortality, HIV/AIDs and elevated levels of poverty. Even a country such as South Africa, seen as a wealthy nation within the context of its neighbouring countries, faces major health shortages. Fragmented health services and lack of access outside of the main cities mean that a considerable percentage of the population obtain little in the way of modern healthcare (Brown 2012).

One of the biggest challenges facing public healthcare today is the shortage of healthcare workers. There is an estimated shortage of approximately 80 000 healthcare professionals in South Africa. The private sector, which serves 16% of the country's population, benefits from 70% of the country's doctors (PHASA 2013). The rest of the 84% of South Africa's population utilise public health care services and access to only 30% of the country's doctors (PHASA 2013). South Africa is starting to implement the NHI scheme initially with a small pilot study. The outcome will be analysed, but it will be several years before full implementation. For this to be successful, funding is required and more doctors will need to be employed by the state (PHASA 2013).

Low back pain remains the primary source of disability worldwide (Blanchette et al. 2015; Passmore et al. 2015). Reports have shown that chiropractic care can be effective treatment for low back pain (Blanchette et al. 2015; Dagenais et al. 2015; Passmore et al. 2015). Chiropractors are more confident in treating spinal pain in comparison with medical doctors. Patients have also reported higher levels of satisfaction with regards to chiropractic care in contrast to care provided by medical physicians (Dagenais et al. 2015; Passmore et al. 2015). Passmore et al

(2015) reported that the Canadian Province of Manitoba initiated a pilot program providing access to chiropractic care within the Mount Carmel Clinic (MCC), a non-secular, non-profit, inner city community health centre. It was found that including a chiropractor in a publically-funded healthcare group decreased the number of primary care visits a patient perceived they required. When the patients that received chiropractic care were discharged from the care facility, only a few of them required the need for further clinical services. This decreased need relieved the burden on the medical physicians who already endure heavy clinic workloads (Passmore et al. 2015). The introduction of chiropractic treatment into the publically-funded clinic was to provide a service that is used for referral by other healthcare workers, reduce pain in patients with acute and chronic spinal pain or pain in the extremities and to provide chiropractic care to those patients that are otherwise unable to afford private chiropractic care.

It is estimated that 15 to 61% of patients that have undergone spinal surgery report continual or recurring pain (Coulis and Lisi 2013). Moreover, two thirds of patients that visit pain centres in the US are due to failed back surgery. It is suggested that post-surgical spinal pain be treated non-surgically, unless there is recurrent neurological deficit (Coulis and Lisi 2013). There have been several case reports detailing the effective treatment of post-surgical spinal pain with chiropractic management (Coulis and Lisi 2013). High velocity, low amplitude manipulations were performed on patients that were experiencing post-surgical pain from a variety of surgical procedures for different pathologies. There were no reported adverse effects to treatment (Lisi and Bhardwaj 2004, O'Shaughnessy et al. 2010, Coulis and Lisi 2013).

Participants acknowledged the wealth of learning experiences that can come with integration into the public healthcare system as the patients present with conditions not often seen in private practice where the majority of chiropractors practice in South Africa. In South Africa, chiropractic treatment is mainly offered in the private sector and there are only a small number of chiropractors that have access to public hospitals (Myburgh and Mouton 2007). Chiropractic care is, therefore, not accessible to a large population of South Africa due to unavailability in the public healthcare sector.

In light of the above it is documented that chiropractic decreases costs to the healthcare systems (Langworthy et al. 2002; Dagenais et al. 2015). The need for more healthcare professionals in South Africa is evident (Mayosi et al. 2012). Participants stated that there is an opportunity for chiropractors to learn within the public healthcare sector. Although this is desirable, the most important factors are the health and wellbeing of patients and not the need of the profession to learn. Therefore, there needs to be willingness to learn evidence-based public health measures in order for the profession to advance. Chiropractic can and should move to promoting health and disease prevention, especially in musculoskeletal disorders and to counter the negative information that is linked to the profession such as anti-vaccination views and anti-public health promoters within the profession. The view that CASA needs to be solely responsible for the integration is not favourable as one participant stated that CASA and interested chiropractors should initiate the integration. The negativity held towards the AHPCSA is unwarranted as this association has the interest of the patient as well as the practitioners at heart. All chiropractors need to become involved in public health promotion, as changing this on the individual level will have a significant effect on the profession at large.

#### **5.4 CHALLENGES FACING CHIROPRACTIC IN THE PUBLIC HEALTHCARE SECTOR**

Participants described the challenges the profession would face in transition to the public healthcare sector. One significant challenge would be the opposition from medical doctors to chiropractic entering the public healthcare sector. There are medical doctors that are opposed to chiropractors and chiropractic treatment due to a long standing history of poor interaction between them (Westin et al. 2013). Participants also stated there might be the possibility of animosity between the physiotherapy profession and neurology specialists as certain treatment methods offered by physiotherapy are also utilised by chiropractors in their treatment protocols. At a public healthcare level, participants stated that the medical personal may not know the benefits of chiropractic treatment to patients (statement 4) and also that chiropractic is not understood by mainstream medicine.

Change will also not occur without opposition from the chiropractic profession itself (statement 8), as one participant stated that there is a misunderstanding of what public health is by the chiropractic profession. Chiropractic has had a very limited access to public healthcare through its history in South Africa. One participant described it as chiropractic striving to preserve the profession and protect it from mainstream medicine. In doing so, the profession has become, to some extent, isolated from mainstream medicine (statement 9). Participants expressed that they are not fulfilling their role as primary healthcare providers, as they felt that they did not effectively use the diagnostic skills component of their qualification as they do not see a variety of conditions in private practice as opposed to what they experienced in their short time in a hospital environment (during their clinical training).

It is important to learn how both chiropractic and mainstream medicine can successfully work together and to extract characteristics of the successful relationships that can be identified to be modelled in other settings (Bronston et al. 2015). The success of integrating CAM practice into the future healthcare systems worldwide would largely depend on the knowledge and attitudes that conventional medical physicians and other health professionals have with regards to CAM (Ameade et al. 2016).

Education of medical doctors and other professionals involved in the public healthcare sector would benefit the chiropractic profession as there has been a long history of misunderstanding about chiropractic. One participant stated that when they were involved in the public health sector, they actively held talks on chiropractic. This was reported to improve the interaction between chiropractic and the medical doctors and other medical personnel.

“More than 100 years after its inception the chiropractic profession has failed to define itself in a way that is understandable, credible and scientifically coherent. This failure has prevented the profession from establishing its cultural authority over any specific domain of healthcare” (Nelson et al. 2005). This is due to the lack of a coherent scope of practice by the profession itself and also a reluctance to some to utilise evidence based practice. There are also conflicting views within

chiropractic itself such as the straight and mixer philosophy in the profession (Walker 2016).

Although there is some knowledge of the inclusion of chiropractors in a variety of integrated healthcare systems, the relationships continue to expand and develop without national coordination. As a result of this there is no defined description of the characteristics. Consequently, a clear description of clinical integrated practice characteristics has not been established. This hinders the benefit of improving the current integration efforts and the use of this information to create future integration (Bronston et al. 2015).

In South Africa, chiropractors hold the status as primary contact practitioners with the authority to diagnosis and manage patients as conducted by a physician (Myburgh and Mouton 2007). While the legislated scope of practice (Act 63 of 182) is inclined to limit chiropractic treatment and management to mostly benign musculoskeletal conditions, it does not prevent the profession from contributing to broader healthcare management through suitable referral (Myburgh and Mouton 2007). The legislation could be expanded to increase the scope of practice for chiropractors to include prescribed medication and injectables in relation to musculoskeletal treatment as pharmacology and diagnostics are part of their education in South Africa, which set them apart from physiotherapists.

The view of some that chiropractic care is not evidence-based or scientific has been detrimental for the profession in becoming legitimate partners in healthcare delivery (Brussee et al. 2001).

## **CHAPTER SIX**

### **CONCLUSION, LIMITATIONS AND RECOMMENDATIONS OF THE STUDY**

#### **6.1 CONCLUSION**

The findings of this study show the lack of clarity amongst participants on the role of chiropractic in the public healthcare sector in South Africa. There is a significant amount of work that needs to be done in order to gain acceptance and legitimacy, this needs to be done by the profession itself. Individual chiropractors need to show personal leadership in order for the profession to take a new direction and create change in the future, they need to practice with evidence based protocols and promote chiropractic research. Chiropractic needs to adopt the values of public health, become part of disease prevention and health promotion especially with regards to spinal health and fight against the aberrant ideologies and non-sensical practices of the older generations. The profession needs to be a strong coherent body and come together for the future of chiropractic.

#### **6.2 LIMITATIONS**

The majority of the participants that were included in the study had no public health experience. The findings of the study are limited to the participants of this study. The sample size was ten, which is low but common for qualitative research.



## **6.3 RECOMMENDATIONS**

The recommendations for future studies include:

### **6.3.1 Recommendations for research**

A similar study be conducted at national level to ascertain the views of chiropractors on their role in the public healthcare sector.

The views of healthcare professionals involved in the public healthcare sector should be canvassed in order to determine whether they support or oppose the inclusion of chiropractic in the public healthcare sector.

A study be conducted to determine the feasibility of including chiropractic services in the public healthcare sector especially with the possible rollout of the NHI.

A pilot study which examines the impact of chiropractic services in a small community public health facility in order to bolster support for this type of service in the larger public healthcare settings. It would also help to identify “teething problems” which can be rectified in the larger public healthcare settings.

More research is required to show the efficacy of chiropractic treatment for musculoskeletal conditions and post-surgical rehabilitation. The methodologies must be robust and the sample sizes must be large. The results of these studies should be published in accredited journals outside of the chiropractic discipline. Collaborative research with chiropractors and medical doctors (and other healthcare professionals) should be encouraged and funded.

### **6.3.2 Recommendations for teaching**

Chiropractic needs to improve its own awareness in mainstream medicine by engaging with medical doctors on its role in the conservative management of musculoskeletal disorders (Sorenson et al. 2006).

The academic departments where chiropractic is taught should engage with the Department of Health with a view of creating access to chiropractic students into the public healthcare institutions for clinical training. This would not only improve the diagnostic skills of chiropractors but also create awareness of the profession in the medical and related disciplines.

A task team comprising academics, chiropractors involved in public health initiatives, members from CASA and AHPCSA as well as other relevant stakeholders (e.g. medical doctors, physiotherapists) need to be formed. Their role would be to define the scope of chiropractic care and develop standard operating practices for chiropractic in the public healthcare sector. This task team would then be able to make representations to the Department of Health with a view of incorporating chiropractic in the public health sector.

### **6.3.3. Recommendations for practice**

The profession needs to encourage its practitioners to participate in public health awareness programmes and attend relevant workshops and conferences relating to public health. This would facilitate inter-disciplinary dialogue and create exposure for the profession.

International best practice guidelines on incorporating chiropractic into mainstream healthcare should be utilised to develop similar models in South Africa. However, financial, infrastructure and human resource constraints need to be factored into these models so that they are implementable, even in small communities, and sustainable.

Most private medical aids make provision for chiropractic care. With the implementation of the NHI, the number of private medical aid members will decrease. A case should be made to include chiropractic into the NHI because if it is excluded it will decrease its accessibility to most South Africans.

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# APPENDIX 1

## Appendix 1: Interview guide

Date-----

Participant no.

Years of experience as a Chiropractor-----

A) Questions related to role and scope of Chiropractic

1. What is your understanding of public healthcare in KwaZulu Natal in particular and South Africa in general?
2. From a Chiropractors perspective, what is the role of the Chiropractic profession in today's healthcare system?  
Probes-what makes you say that?

B) Questions related to the key developmental issues affecting integration.

- 1) Do you think chiropractors should be included in the public healthcare sector in KwaZulu Natal? Kindly provide reasons for your response
- 2) What are some of the challenges do you think chiropractors will face in the public healthcare sector? How should these be addressed and by whom?

C) Questions related to the future of Chiropractic

1. Are you involved in post surgical patient management? If yes, kindly elaborate the role of the chiropractor in this.
2. If chiropractors were allowed into the public healthcare sector of KwaZulu Natal, what role do you think they could fulfill in this system and why? Who would be beneficiaries of this and why?
3. Should there be dialogue between the chiropractic profession and Minister of Health in identifying the roles and responsibilities of the practitioner in a public healthcare setting? Who should initiate this, who should be involved and why?

D) Is there anything more you would like to add?

**Thank you again for participation.**

## APPENDIX 2



Natalie Davies <natzdavies@gmail.com>

### Fwd: RE: permission

1 message

**Natalie Davies** <natzdavies@gmail.com>  
To: Nokuthula Sibiyi <nokuthulas@dut.ac.za>

Mon, Jul 21, 2014 at 8:08 AM

----- Forwarded message -----  
From: "Dr. Louis Mullinder" <registrar@ahpcsa.co.za>  
Date: 16 Jul 2014 9:26 AM  
Subject: RE: Research  
To: "Natalie Davies" <natzdavies@gmail.com>  
Cc: "Beverley" <beverley@ahpcsa.co.za>

Dear Ms Davies

I am unsure as to why any student at DUT needs AHPCSA approval to conduct research - I have had similar requests in the past, but since the universities are autonomous and since your research has presumably been approved by the ethics committee and is within the policy set by the Department of Chiropractic and Somatology, you may proceed.

With kind regards

**DR LOUIS MULLINDER**

**REGISTRAR: ALLIED HEALTH PROFESSIONS COUNCIL OF SOUTH AFRICA**

6 CASTELLI, IL VILLAGGIO, 5 DE HAVILLAND CRESCENT SOUTH, PERSEQUOR PARK, PRETORIA

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TEL NUMBER: 012 349 2331/2332/2333, FAX NUMBER: 012 349 2327

FAX TO EMAIL: 086 507 4092

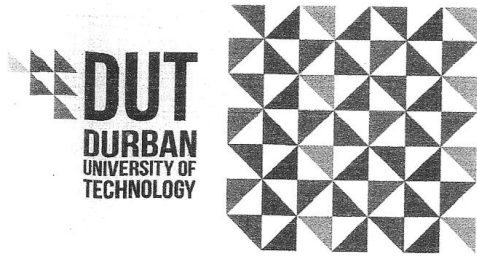
email: registrar@ahpcsa.co.za

Visit AHPCSA Facebook Page



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# APPENDIX 3



Institutional Research Ethics Committee  
Faculty of Health Sciences  
Room MS 49, Mansfield School Site  
Gate B, Ritson Campus  
Durban University of Technology

P O Box 1334, Durban, South Africa, 4001

Tel: 031 373 2900

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

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

21 May 2015

IREC Reference Number: **REC 94/14**

Ms N Davies  
45 Lansdowne Crescent  
Durban North  
4051

Dear Ms Davies

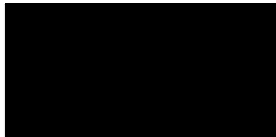
**Perceptions of chiropractors in the eThekweni Municipality on the integration of chiropractic into the public health care sector of South Africa**

The Institutional Research Ethics Committee acknowledges receipt of your final data collection tool for review.

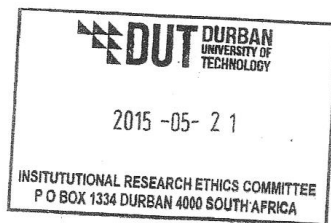
We are pleased to inform you that the questionnaire has been APPROVED; you may now proceed with data collection on the proposed project.

Kindly ensure that participants used for the pilot study are not part of the main study.

Yours Sincerely



Professor J K Adam  
Chairperson: IREC





## APPENDIX 4



### **Appendix 4: Letter of information and consent**

**Title of the Research Study:** Perceptions of chiropractors in the eThekweni municipality on the integration of chiropractic into the public healthcare sector of South Africa.

**Principal Investigator/s/researcher:** Natalie Davies, B Tech: Chiropractic

**Co-Investigator/s/supervisor/s:** Dr J Shaik, M Tech: Chiropractic and Prof MN Sibiya, D Tech: Nursing.

**Brief Introduction and Purpose of the Study:** The aim of this interview is to collect information which may inform me about your personal perception (and not that of the body that you represent) of how Chiropractic can be integrated into the South African public health sector. The aim of the research study is to explore and describe the perceptions of Chiropractors about the integration of the Chiropractic profession into the South African public health sector and the upcoming National Health Insurance.

**Outline of the Procedures:** You are requested to participate in an interview. The researcher will make an appointment to meet with you at your practice or any other suitable venue at a time that suits you. Please take note that the interviews have to be recorded by a digital voice recorder for transcription and data analysis purposes, by signing the consent below you are willing to be recorded. Recordings will be stored for five years at The Durban University of Technology in a safe facility of the Chiropractic department and then destroyed. Member checks will be done to determine if the data received by the researcher once interpreted is in keeping with participants' views.

**Risks or Discomforts to the Participant:** None.

**Benefits:** The information collected will be used to understand the current position of Chiropractic in South Africa, and determine the actions that would help the Chiropractic profession to become more established in the public healthcare sector and grow the profession.

**Reason/s why the Participant May Be Withdrawn from the Study:** The protection of human rights is important and the research should be guided by the principles of respect for people, beneficence, and justice. Participants have the right to be informed about the study, the right to freely decide whether to participate in the study, and the right to withdraw at any time without consequence.

**Remuneration:** There is no remuneration involved in this study.

**Costs of the Study:** No cost is involved for the participants.

**Confidentiality:** Data collected will remain confidential and only be shared with myself and my supervisors until the research is published. The participants will not be identified or named as codes instead of names will be used.

**Research-related Injury:** None

**Persons to Contact in the Event of Any Problems or Queries:** Please contact the researcher, Natalie Davies, on 082 355 9814, my supervisor, Dr J Shaik, 031-373 2588, co-supervisor Prof MN Sibiya, 031-373 2606 or the Institutional Research Ethics administrator on 031 373 2900. Complaints can be reported to the DVC: TIP, Prof F. Otieno on 031 373 2382 or

[dvctip@dut.ac.za](mailto:dvctip@dut.ac.za)



**CONSENT**

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

- I hereby confirm that I have been informed by the researcher, Ms Natalie Davies about the nature, conduct, benefits and risks of this study - Research Ethics Clearance Number: \_\_\_\_\_,
- 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.
- I give permission for my interview to be recorded.

\_\_\_\_\_ / \_\_\_\_\_  
**Full Name of Participant      Date      Time      Signature      /      Right Thumbprint**

I, \_\_\_\_\_ (name of researcher) herewith confirm that the above participant has been fully informed about the nature, conduct and risks of the above study.

\_\_\_\_\_ / \_\_\_\_\_  
**Full Name of Researcher      Date      Signature**

\_\_\_\_\_ / \_\_\_\_\_  
**Full Name of Witness (If applicable)      Date      Signature**

\_\_\_\_\_ / \_\_\_\_\_  
**Full Name of Legal Guardian (If applicable)      Date      Signature**