Perceptions and Experiences of Elderly Patients Receiving Chiropractic Care in the Durban Metropolitan Area

By

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I, Holly Claire de Lange, declare that this dissertation represents my work in conception and execution (except where acknowledgements indicate the contrary).

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DEDICATION

I dedicate this research to everyone who has gifted me with their stories throughout my life. Thank you for inspiring me and my desire to listen.

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ABSTRACT

Background: The elderly population experience a significant musculoskeletal burden. Both the population and their healthcare burdens are expected to increase due to the elderly's extended life expectancies. This escalating healthcare burden falls to the public healthcare sector, on which the majority of the population relies in the South African context. The current experiences of elderly individuals in this public system are poor due to the disease-centred approach implemented in care. Chiropractic care implements a patient-centred approach to healthcare which is more suitable to meet the needs of this vulnerable population. Chiropractic care effectively manages musculoskeletal conditions; however, it remains largely underutilised by the public. In South Africa, Chiropractic Care's public presence is limited to two university clinics due to the outdated legislature restricting the profession in the public healthcare sector. This limits the public exposure to Chiropractic Care's non-invasive and non-pharmacological approach for managing musculoskeletal pain. There is limited research in both the local and international contexts into the perceptions and experiences towards Chiropractic Care from the elderly's perspective, therefore demonstrating the value of additional research into this topic.

Aim: This study aimed to explore the perceptions and experiences of elderly individuals receiving Chiropractic Care in the Durban Metropolitan area.

Method: This qualitative study was conducted utilising an exploratory, descriptive approach. A random-purposive sampling of 11 elderly individuals with at least one previous Chiropractic Care experience was implemented. Semi-structured interviews were performed to provide insights into the perceptions and experiences of this population. Thematic analysis was performed using the Tesch method.

Results: Thematic analysis extracted six themes, including understanding of Chiropractic Care; factors influencing the pursuit of Chiropractic Care; the impact of care on the elderly experience; insights provided through lifetime experiences; the impacts of age on the elderly experience; and the attraction of an alternative healthcare approach.

Conclusion: This analysis indicated that although understanding of Chiropractic Care was limited by this population, all elderly participants shared positive perceptions of Chiropractic Care. A lack of language eloquence was observed when participants discussed Chiropractic terminology. New Chiropractic Care experiences have the potential to change the previous negative perceptions, while misinformation can be combated through patient education. Recommendation-based pursuit of Chiropractic Care is insufficient, and a focus on exposing new individuals to Chiropractic Care through alternative methods, such as community

outreach, should be prioritised. The patient-centred approach in Chiropractic Care created a positive healthcare experience for the elderly individuals in this study. The elderly felt age had minimal impact on the Chiropractic Care they were provided, compared to the age-based discrimination they experienced in the mainstream public sector. When the clinical care provided to the elderly is substandard, the negative perceptions of ageing and the ability to successfully access care are reinforced. Chiropractic care was viewed by the elderly as a superior healthcare alternative to the pharmacological and surgical options they were traditionally offered.

Keywords: Chiropractic care, elderly, perceptions, experiences.

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DEFINITIONS

Chiropractic care: A healthcare profession focused on diagnosing, managing, and preventing musculoskeletal conditions (CASA 2022). This profession implements a patient-centred, non-invasive approach to care for the spine and musculoskeletal system (Ontario Chiropractic Association 2022).

Contraindication: A specific medical cause for not utilising a particular form of care to manage a medical condition in the standard way (Collins 2023).

Conventional medicine: The orthodox style of medicine, which employs medication and surgery as the basis of the care provided (Collins 2023).

Diagnose: The identification of an illness or problem (Collins 2023).

Disease-centred care: An acceptable approach to care for an individual with a singular disease that is predominant, which has a collectively desired treatment result of prolonging life, or preventing strokes (Tinetti, Naik and Dodson 2016). This is the default form of care used by 83% of the South African population, as this approach is applied throughout the public healthcare sector of South Africa (Rabie, Klopper and Watson 2016; Naidoo and van Wyk 2019).

Elderly: Individuals 60 years of age and older (World Health Organization 2002).

Evidence-based practice: Evidence-based practice (EBP) care that is provided while making decisions through a systematic process so that actions or activities are based on the best evidence available. EBP reduces bias through systems such as peer-reviewing research, work-based trial and error, practitioner experience and expertise, and feedback (Oxford Review 2023).

Experiences: "the things that have happened to you that influence the way you think and behave" (Oxford University Press 2020).

Myofascial: When the word myofascial is broken into its core components, we are able to extract 'myo', meaning muscle, and 'fascia', which describes the connective tissue related to muscles. Myofascial, therefore, describes the muscular and associated connective tissue components of the body (National Association of Myofascial Trigger Point Therapists 2023).

Musculoskeletal: Related to muscles, bones, joints, cartilage, ligaments and or tendons (National Cancer Institute 2023).

Patient-centred care: Care that is provided with an individual's specific needs and care desires at the forefront of healthcare decisions. It ensures patient care is collaborative with shared decision-making and that the care provided is not just clinical but with a patient's emotional, mental, social, financial and spiritual perspectives in mind (NEJM Catalyst 2017)

Perception: "an idea, a belief or an image you have as a result of how you see or understand something" (Oxford University Press 2020).

Polypharmacy: The administration of multiple medications concurrently to treat either a single disease or coexisting conditions, increasing the risk of adverse drug reactions (Merriam-Webster 2023).

Primary care: The initial healthcare contact point where patients receive medical care services (Collins 2023).

Scope of practice: The limit of actions a professional role can provide, based on the extent of the practitioner's knowledge, skills and experience (Health and Care Professions Council 2021).

ABBREVIATIONS

AHPCSA	Allied Health Professions Council of South Africa
CAM	Complementary and alternative medicine
CDC	Chiropractic Day Clinic
CASA	Chiropractic Association of South Africa
DUT	Durban University of Technology
EBP	Evidence-based practice
FBSS	Failed back surgery syndrome
IFC	Interferential current therapy
KZN	KwaZulu-Natal
NSAID	Non-steroidal anti-inflammatory drug
OA	Osteoarthritis
RA	Rheumatoid arthritis
SMT	Spinal manipulative therapy
TENS	Transcutaneous electrical nerve stimulation
UJ	University of Johannesburg
USA	United States of America
vs	versus
WFC	World Federation of Chiropractic
WHO	World Health Organization

CHAPTER ONE

INTRODUCTION TO THE STUDY

1.1 INTRODUCTION AND BACKGROUND

The South African elderly population, consisting of individuals 60 years and older, has been steadily growing due to advancements in Western medicine (Lehohla 2014). The individuals within this age bracket experience a high prevalence of musculoskeletal pain, resulting from conditions such as low back pain, osteoarthritis, osteoporosis, and rheumatoid arthritis (Woolf and Pfleger 2003; Minetto *et al.* 2020). The more frequent treatment requirements of these chronic musculoskeletal conditions increase the healthcare burden created by this expanding elderly population (Lehohla 2014; Woolf and Pfleger 2003; Minetto *et al.* 2020).

The experiences of the musculoskeletal care provided by the public medical sector in South Africa is currently very poor, with most elderly individuals being largely dissatisfied with the care they receive (Naidoo and Van Wyk 2019). Although Chiropractic Care is a relatively youthful profession in South Africa compared to the United States of America (USA), its popularity as a tool to combat musculoskeletal pain has grown significantly (CASA 2022; Adams *et al.* 2017). There is, however, marked underutilisation of Chiropractic Care among the elderly, despite the profession's efficiency in managing their musculoskeletal pain (de Luca *et al.* 2021). The literature concerning the elderly population's views on Chiropractic Care is limited, especially in the South African context. Establishing the extent of the elderly's understanding of Chiropractic Care is essential, as insufficient knowledge can lead to the avoidance of care (Leeuw *et al.* 2007). Therefore, providing effective patient education is imperative to enable elderly individuals to make informed decisions surrounding their care. Harnessing the elderly's perceptions and experiences of Chiropractic Care allows pertinent understanding to be gained into their healing process, as both perceptions and experiences impact treatment satisfaction and, thus, patient recovery (Dougherty *et al*. 2012; Hawk *et al*. 2017; Alcantara *et al*. 2019).

1.2 THE RESEARCH PROBLEM

Projections suggest that the elderly's extended life expectancies will result in the steady expansion of the elderly population residing in South Africa (Lehohla 2014). The prevalence

of musculoskeletal issues experienced by the elderly is high and creates a significant and growing healthcare burden (Woolf and Pfleger 2003; Minetto *et al.* 2020). Elderly individuals reported dissatisfaction with the care they received from the South African public sector, on which the majority of the population relies for healthcare (Rabie, Klopper and Watson 2016; Naidoo and Van Wyk 2019). While the use of Chiropractic Care has become an essential tool in combating musculoskeletal conditions, it remains largely underutilised by the public (Beliveau *et al.* 2017; Hawk *et al.* 2017; de Luca *et al.* 2021). There is limited research in both the local and international contexts into the perceptions and experiences towards Chiropractic Care from the elderly's perspective, therefore demonstrating the value of additional research into this topic. Utilising a qualitative design provides greater access to understanding this vulnerable population's perceptions and experiences, which in turn, aids practitioners in how to best care for elderly Chiropractic patients in the future.

1.3 AIM OF THE STUDY

The aim of this study was to explore the perceptions and experiences of elderly patients receiving Chiropractic Care in the Durban Metropolitan area.

1.4 RESEARCH QUESTIONS

1. What are the perceptions of elderly patients receiving Chiropractic Care?
2. What are the experiences of elderly patients receiving Chiropractic Care?

1.5 RATIONALE

According to Lehohla (2014), KwaZulu-Natal (KZN) is home to the second-highest population of elderly residents in South Africa, a population that is expected to grow progressively in the upcoming years. Individuals within this elderly population are at an increased risk of suffering from a variety of musculoskeletal conditions (Gheno *et al.* 2012; Minetto *et al.* 2020), as a result of age-related musculoskeletal degeneration (Li and Chen 2019) and their elevated risk of falls (Holt *et al.* 2016*).*

Chiropractic care has been shown to be an effective method in the management of the elderly's musculoskeletal complaints (Beliveau *et al.* 2017; Hawk *et al.* 2017.) Currently, the perceptions and experiences of musculoskeletal care provided in the South African public

mainstream medical sector, are poor, with most elderly individuals being largely dissatisfied with the care they have received (Naidoo and Van Wyk 2019). Consequently, this suggests that the current South African public medical sector is not equipped to effectively care for the growing elderly population requiring musculoskeletal care, compared to their Chiropractic counterparts (Beliveau *et al.* 2017; Hawk *et al.* 2017; Naidoo and Van Wyk 2019). With the growing need for musculoskeletal treatments within the elderly population, there is value in determining these patients' current perceptions and experiences regarding their Chiropractic Care.

The elderly population in South Africa encounter unique socio-economic issues compared to the elderly population globally. Access to Chiropractic Care in the South African public sector is severely limited due to outdated legislature making accessibility of Chiropractic Care, by this already financially strained population, even more difficult.

A study performed at the Durban University of Technology (DUT) Chiropractic Day Clinic (CDC) determined that 83.1% of the elderly patients receiving care had no working income. It was also found that the majority of elderly individuals in South Africa were dependent on a state-provided pension, thus making the financial burden of Chiropractic Care for this group high (Schirmer 2019; Stewart and Yermo 2009). In South Africa, the financial burden felt by the elderly is often compounded by the frequency of state-provided pensions not solely being used to support their intended beneficiary but entire households (Lloyd-Sherlock, Penhale and Ayiga 2018).

In the elderly population, there are many factors that impact a patient's experiences, one of which is the expectations patients hold for the care they will receive and the rate of their recovery (MacPherson *et al.* 2015; Asadi-Lari, Tamburini and Gray 2004). Elderly individuals have slower rates of healing than their younger counterparts (Baker 2017), as well as a higher incidences of chronic pain (Giustino 2015), which negatively influences their recovery. The impact these factors have on patient experience differentiates the elderly patient from their younger counterparts and highlights the need to further understand this unique population group.

This study will provide insight into the perceptions and experiences of the elderly population towards Chiropractic Care. The results attained in this study will be implemented to progress

the skills which future chiropractors acquire, thereby improving the elderly patients' experiences and levels of satisfaction.

The Chiropractic profession's popularity has risen significantly in past decades, both in the local and international context, as a result of its improved public perceptions with the move to a patient-centred model (Lambers and Bolton 2016; Adams *et al.* 2017). Understanding patients' perceptions and experiences towards Chiropractic Care is imperative as they impact treatment satisfaction and potential Chiropractic utilisation in the future (Alcantara *et al.* 2019). In the elderly population, it is important to pay special attention to understanding these individuals' perceptions at this time, as they have had many more years to develop their perception towards Chiropractic Care and may have done so in a time when the profession had a poorer reputation and lacked legitimacy (Goldstein 2000; AHPCSA 1982).

This study will help identify common misconceptions towards Chiropractic Care that are found within this older generation that can be corrected through patient education of future patients. There is a paucity in both the local and international literature, with regard to the elderly patient's experiences of Chiropractic Care, and, as a result, there is limited knowledge pertaining to this population, especially in KZN. Qualitative research provides a comprehensive and holistic look into the complexities of individuals with regard to their thoughts, feelings and experiences, making it the most advantageous research method in relation to the aims of this study (Rahman 2020).

1.6 OUTLINE OF THE THESIS

Chapter One:

This chapter introduces the study and ascertains the research problem, the aim, the research questions and the rationale.

Chapter Two:

In Chapter Two, an in-depth analysis and detailed review are provided of the latest relevant literature that is pertinent to this study.

Chapter Three:

In this chapter, a thorough explanation of the methodology used in this study will be presented. This is inclusive of the study's design, location, population, participant recruitment process,

sampling method, measurement tools, pilot study and procedures. Additionally, this chapter discusses the data analysis and ethical considerations that were taken into account.

Chapter Four:

This chapter presents the study's findings.

Chapter Five:

A discussion of the study's findings is included in this chapter.

Chapter Six:

This chapter will present this study's concluding comments and recommendations for future research.

1.7 SUMMARY OF THE CHAPTER

This chapter has provided an introduction to the research, establishing the study's population and how the research questions relate to the Chiropractic profession. The research problem has been defined, while also detailing how the study aims to address this problem. The rationale has explained the significance of the study for the elderly population and the field of Chiropractic as a whole. Additionally, the thesis chapters have been outlined in detail, covering chapters one through six.

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

This chapter provides a review of the academic literature pertaining to the perceptions and experiences of elderly individuals. The literature review unpacks the various facets related to the elderly and their insights. Furthermore, this chapter assists in highlighting the paucity currently evident in literature, concerning the knowledge of this growing population, within the context of Chiropractic in South Africa.

2.2 THE ELDERLY

2.2.1 Definition of the Elderly Population

The definition and categorisation of an elderly individual is both a complex and contentious topic. The World Health Organization (WHO) states that the elderly population consists of individuals 60 years of age and older, providing a tangible definition of what it is to be considered an elderly individual (WHO 2002). Although it is undeniable that elderly individuals have unique needs due to the complexity of each individual's anatomy, economic situation and social views (Sardina *et al.* 2021; Schirmer 2019; Sanchez *et al.* 2018), it is essential to acknowledge the variability and ambiguity attached to what it is to be considered elderly (Bordone *et al.* 2020).

Traditionally, the transition into being considered a part of the elderly community was assigned at the point of retirement; however, the perception of what it is to be considered to be 'elderly' is unique to each individual (Bordone *et al.* 2020). Individuals within the elderly population who share the same chronological age often have different perceptions of the ageing process, as well as different expectations, goals and ability levels (Bordone *et al.* 2020). The WHO's definition of the elderly population does not consider the vast population it encapsulates, as individuals within this population can have more than 50 years that separate them. The ambiguity related to this definition can lead to negative connotations of being labelled as 'elderly' (Bordone *et al.* 2020).

2.2.2 The Elderly Population in South Africa

Currently, the elderly comprise 7.6% of the total population in the eThekwini Municipality (Statistics South Africa 2011). Due to the advancements in Western medicine, individuals have progressively longer life expectancies, a trend that is expected to continue in the years to come (Lehohla 2014). In South Africa, it is projected that the elderly population will grow from 4.1 million individuals, as surveyed in the 2011 census, to approximately 7 million by 2030 (Lehohla 2014). This is a cause for concern in KZN, as it is home to the second-highest population of elderly individuals in the country (Lehohla 2014). As lifespans lengthen, new challenges arise as the probability of musculoskeletal injury in the elderly increase progressively due to their musculoskeletal ageing and elevated fall risk (Holt *et al.* 2016; Greco, Pietschmann and Migliaccio 2019). The ever-increasing elderly population and their increased rates of musculoskeletal injuries could put added financial pressure on the KZN provincial government and its related health facilities in years to come.

2.2.3 The Impacts of Musculoskeletal Ageing on the Elderly

Musculoskeletal ageing is a term used to describe the amalgamation of disorders that affect the musculoskeletal system of elderly individuals. This condition has various causes; however, it can be attributed to a combination of age-related changes, such as hormonal imbalances, inflammation, sarcopenia and osteoporosis. The consequences of musculoskeletal ageing have a large impact on elderly individuals as it is associated with increased risks of falls, increased prevalence of musculoskeletal disorders, and loss of autonomy secondary to their decreased mobility (Greco, Pietschmann and Migliaccio 22019). The impact in the South African context is significant, as more than half of South African elderly patients complained that musculoskeletal pain impacted their activities of daily living (Pendock 2018).

There is a high prevalence of musculoskeletal disorders causing pain within the elderly population (Gheno *et al.* 2012), with the most common of these conditions, according to the WHO, being low back pain, osteoarthritis, osteoporosis and rheumatoid arthritis (D'cruz *et al.* 2018; Woolf and Pfleger 2003). This trend is also seen locally as a study performed by Pendock (2018) found that the prevalence of musculoskeletal pain in elderly individuals living in care facilities in KZN was 79% of the group surveyed. The high prevalence of musculoskeletal disorders in this age group is largely due to degenerative changes that occur with ageing, which include decreased bone density resulting in fragility, loss of elasticity of ligaments, decreased cartilage resistance and reduced strength of muscles (Freemont and Hoyland 2007).

Chiropractic has become a popular and effective profession for the treatment of musculoskeletal conditions in the elderly and, with its use, the rate of degenerative changes can be reduced and the symptoms of these conditions can be effectively managed, thus allowing the maintenance of functional ability in these individuals (Hawk *et al.* 2017; Dougherty *et al*. 2012).

2.2.3.1 Sarcopenia in the Elderly

Sarcopenia is defined as the age-related decline in muscle mass and function. This decline usually begins in the fifth decade of life and progresses with increasing severity as individuals ages. (Greco, Pietschmann and Migliaccio 2019). Therefore, the main factor affecting sarcopenia is age. However, it must be noted that additional factors influencing sarcopenia include disuse, menopause, decreased protein consumption and chronic low-grade inflammation. Sarcopenia negatively impacts the body's ability to move and perform locomotion, which in turn negatively impacts bone density. Physical activity helps protect against the loss of bone density through the application of load via the body's musculature (Greco, Pietschmann and Migliaccio 2019). Chiropractors are able to supplement their care by prescribing elderly individuals exercise regimens that aid in the maintenance of muscular strength through programs including aerobic exercise and strength training (Boghozian 2015).

2.2.3.2 Osteoporosis in the Elderly

Osteoporosis is a degenerative condition, affecting bone density, prevalently seen in the elderly population (Clynes *et al*. 2020). As individuals age, the body's rate of bone remodelling reduces, while the rate of bone deterioration remains constant (Greco, Pietschmann and Migliaccio 2019). This results in a negative bone balance and, as such, increased incidences of osteoporosis occur with age (Greco, Pietschmann and Migliaccio 2019). The consequent decline in bone mineral density and quality results in a more fragile and porous bone structure (Clynes *et al.* 2020). Thus, individuals suffering from osteoporosis are more susceptible to fractures due to their bone fragility (Greco, Pietschmann and Migliaccio 2019). As a result of this increased risk, these patients are contraindicated from having Chiropractic Adjustments performed on them.

2.2.3.3 Low Back Pain in the Elderly

Low back pain is the most prevalent musculoskeletal complaint affecting the KZN elderly population (Pendock 2018). This statistic is of concern as low back pain is linked to greater

social isolation, diminished social participation, impaired mobility and difficulty performing activities of daily living (Jenks *et al.* 2020). Therefore, low back pain has a significant impact on elderly individuals' ability to care for themselves, as well as actively participate in society (Jenks *et al.* 2020). The psychosocial impacts of low back pain in the elderly should not be underestimated and further understanding into this field is required to better assist this growing population.

Conventionally, elderly patients are offered unsustainable and often ineffective treatment options, such as surgeries, spinal block injections or opioid prescriptions (Jenks *et al.* 2020). Chiropractic is shown to be an excellent form of treatment for low back pain in younger adults, but research into low back pain typically excludes the elderly due to the risks related to degeneration, polypharmacy and high comorbidity rates. However, chiropractors manage numerous elderly patients, aiding them with their pain management and functionality, in spite of the paucity currently seen in the academic space (Jenks *et al.* 2020).

2.2.3.4 Osteoarthritis in the Elderly

Osteoarthritis (OA) is a highly prevalent, degenerative form of arthritis that mostly impacts the elderly population (Chow *et al.* 2020). Individuals diagnosed with OA suffer from intense joint pain, stiffness and reduced range of motion (Chow *et al.* 2020). This condition can affect any joint in the body; however, it preferentially impacts the knees, spine, hips and hands (Kloppenburg and Berenbaum 2020).

There is a scarcity of treatment options for OA within conventional medicine, with the current treatments relying predominantly on symptom-relieving drugs such as non-steroidal anti-inflammatory drugs (NSAIDs) and paracetamol (Chow *et al.* 2020; Kloppenburg and Berenbaum 2020). These drugs tend to have side effects when used in the long term and do not make viable therapies for this chronic and degenerative condition (Kloppenburg and Berenbaum 2020). Surgical options, such as joint replacements, are effective in treating late-stage knee and hip osteoarthritis but they have finite lifespans, with revisions often being required later in life (Kloppenburg and Berenbaum 2020). It is also important to consider joint replacement surgeries' significant recovery and financial burdens, especially for the elderly demographic (Young, Važić and Cregg 2021).

In contrast to conventional care, manual therapies, such as Chiropractic Care, have been shown to provide short-term pain relief, reduce functional disability, increase range of motion and improve physical performance, making it a viable option in the management of OA (Anwer *et al.* 2018).

2.2.3.5 Rheumatoid Arthritis in the Elderly

Rheumatoid arthritis (RA) is a chronic autoimmune condition that results in inflammatory degeneration of the body's joints. This inflammatory form of arthritis works in a symmetrical pattern affecting the smaller joints initially and eventually progressing to the larger joints of the body. Rheumatoid arthritis has several risk factors, one of which is age, making it a prevalent condition for the elderly population (Bullock *et al.* 2018). The symptoms of RA follow a predictable pattern of morning stiffness that occurs for less than 30 minutes; warm, swollen and tender joints; and associated symptoms of fever, fatigue and weight loss. This condition is diagnosed by the presence of the rheumatoid factor in patients' blood work in conjunction with their symptomology (Bullock *et al.* 2018).

The allopathic treatment protocols for RA use NSAIDs and corticosteroids as the first line of treatment and disease-modifying anti-rheumatic drugs as the second line of treatment. These treatment protocols are effective in managing the disease but it must be noted that they carry a high risk of side effects (Bullock *et al.* 2018). Within the complementary and alternative medicine (CAM) paradigm, treatments, such as dry needling, electrical stimulation, laser therapy and massage, have been shown to be highly effective forms of pain management for individuals with RA (Zhao *et al.* 2017).

2.2.4 Chiropractic Treatment in the Elderly

Chiropractic care is a form of CAM which aims to treat patients using a holistic approach, thereby addressing not only health issues but also all the factors which contribute to patient well-being (Hastings 2016). Elderly individuals experience exceptional benefits from the holistic approach provided by Chiropractic Care, as chiropractors implement a multitude of different strategies when approaching the treatment of pain associated with musculoskeletal conditions (Ernst 2020).

Spinal manipulative therapy (SMT) is one of the most effective and frequently used modalities when caring for elderly patients (Hawk *et al*. 2017). SMT makes use of a high amplitude, low-velocity thrust that makes direct contact with the spinal segment that is being treated, with the aim of realigning the said segment (WHO 2005). SMT is often complimented with a combination of nutritional and lifestyle advice; postural corrections; massage; myofascial tension release techniques; axillary therapeutic modalities; and stretching and strengthening exercises.

Chiropractors are trained to treat a variety of conditions that affect the elderly population, including low back pain, neck pain, extremity pain, such as knee and hip pain, balance issues and degenerative disorders (D'cruz *et al.* 2018). Musculoskeletal pain impacts the elderly population of KZN significantly, with a lifetime prevalence of 86%, and a point prevalence of 79% (Pendock 2018). Furthermore, chronic pain is evident in nearly half the elderly population and is one of the most common reasons the elderly seek medical attention (Kirubakaran and Dongre 2019). Elderly individuals tend to perceive chronic pain as a sign of health deterioration, which drastically impacts their quality of life (Kirubakaran and Dongre 2019). However, the utilisation rates of Chiropractic Care in the elderly remain low despite its efficacy, with only a fifth of elderly individuals utilising this form of care globally (de Luca *et al.* 2021).

Despite the paucity in literature related to Chiropractic Care in the elderly, elderly patients often convey improvements regarding their complaints following the Chiropractic Care they receive (Salsbury *et al.* 2019). A descriptive study conducted in USA found that the majority of chiropractors (92%) felt confident in their ability to provide care for older adults with back pain, in contrast to the low levels of confidence (27%–33%) seen in the abilities of conventional medical professionals, such as advanced nurses, physician assistants and medical doctors (Salsbury *et al.* 2019). There is a paucity in the literature in the South African context.

The Chiropractic curriculum at the DUT has a specific module focusing on elderly patient management; however, 39% of Chiropractic educational institutions do not have any dedicated geriatric programmes and a further 72% lack the clinical component of this training (Salsbury *et al.* 2019).

2.2.5 Conventional Musculoskeletal Care in the Elderly

The South African clinical guidelines currently in use by mainstream medical professionals providing primary care are ill-equipped to manage the multi-morbid conditions commonly

experienced by the elderly population (Naidoo and Van Wyk 2019). The conventional care prescribed to manage musculoskeletal pain in the elderly is mostly pharmaceutical or surgical in nature (Jenks *et al.* 2020). The South African mainstream healthcare sector places a greater emphasis on curative medicine than preventative or rehabilitative medicine, which is detrimental to the chronic musculoskeletal care requirements of the elderly (Naidoo and van Wyk 2019).

The prescription of pharmacological therapies for managing musculoskeletal pain is a frequent occurrence in the mainstream medical sector despite not being recommended as the first-line approach to managing musculoskeletal pain (Bussières *et al.* 2018; El-Tallawy *et al.* 2021). The long-term consumption of drug therapies is not only unsuitable in managing chronic musculoskeletal pain but additionally increases the risk of pain reoccurrence (Moore *et al.* 2015; Pendock 2018).

The elderly population is the largest consumer of pharmaceutical products globally, which places them at an elevated risk of developing polypharmacy (Projovic Vukadinovic and Milovanovic 2016). This issue of polypharmacy is evident in the elderly plagues South Africa's public medical sector, with the majority experiencing a 'pill burden' as the result of the multiple medications they were prescribed (Naidoo and van Wyk 2019). Non-specific pharmaceutical managements are still predominantly prescribed to elderly individuals suffering from musculoskeletal pain, despite the negative pill burden they experience (Naidoo and van Wyk 2019). This pill burden is aggravated by the poor understanding surrounding the purpose of these prescribed medications due to physicians' inadequate explanations and patient education (Naidoo and van Wyk 2019). Moreover, these elderly individuals often experienced multiple adverse drug reactions, with some individuals resorting to stopping these medications on their own, while others persisted despite the adverse effects (Naidoo and van Wyk 2019).

Additionally, polypharmacy increases the risk of elderly individuals potentially taking inappropriate medications (Vatcharavongvan and Puttawanchai 2019). Physicians' knowledge surrounding potentially inappropriate medications is limited globally, while in South Africa, this issue of inappropriate drug prescription is also highly prevalent (Vatcharavongvan and Puttawanchai 2019; Naidoo and van Wyk 2019). The prescription of these inappropriate drugs is commonly seen in the management of chronic musculoskeletal conditions, such as low back pain (Vatcharavongvan and Puttawanchai 2019). These potentially harmful

medications should not be overlooked, as they increase mortality by 44% due to medical errors and adverse effects (Vatcharavongvan and Puttawanchai 2019).

Recommendations of non-pharmacological substitute measures for musculoskeletal pain have been made to avoid polypharmacy and reduce inappropriate medication prescriptions (Vatcharavongvan and Puttawanchai 2019). Chiropractic care is viewed as an effective alternative form of management to replace medications for musculoskeletal care but only a minority of elderly individuals utilise this alternate form of care (de Luca *et al.* 2021; Robbertze 2018; Brown *et al.* 2018). The relationship between polypharmacy and negative clinical outcomes is clear, is to the efficacy and underutilisation of Chiropractic in the management of the elderly, signifying the need for interdisciplinary collaboration to address the true needs of this vulnerable population.

There is minimal consensus surrounding what is considered surgically curable when managing musculoskeletal conditions (Joshipura and Gosselin 2020). The incidence of surgical intervention for back pain management has significantly increased in recent decades (Baber and Erdek 2016). Furthermore, indications for musculoskeletal surgery are vague and are not limited to a definitive cure but also include temporary relief (Joshipura and Gosselin 2020). The elderly population have a 40% incidence of post-surgical chronic pain, yet the utilisation rates of surgical procedures continue to grow in this population (Esses *et al.* 2020). The strongest predisposing factors for post-surgical chronic pain are pre-existing pain conditions and movement-invoking pain. (Esses *et al*. 2020). In cases where these surgeries fail to relieve pain or only temporarily relieve pain, patients are often diagnosed with failed back surgery syndrome (FBSS) (Baber and Erdek 2016). The risks of FBSS are significant and suggested to be underestimated, resulting in chronic, long-standing pain with or without radicular symptoms (Baber and Erdek 2016). It is important to consider the impacts of chronic post-surgical pain on the elderly as it affects their functionality, delays their recovery and reduces their quality of life (Esses *et al.* 2020). Furthermore, it is important to note that chronic pain post-surgery incidence increases with age (Esses *et al.* 2020). In some musculoskeletal surgical cases, surgical outcomes can be compared to those of rehabilitative therapy (El-Tallawy *et al.* 2021).

2.2.6 Impact of Care

The healthcare system can be considered a dehumanising and degrading space for patients (Ellis-Hill *et al.* 2021). This occurs as a result of the unproportioned value placed by mainstream medicine on the biological elements of a patient and their treatment solutions in contrast to their social and psychological elements (Rodin, Ntizimira and Sullivan 2021). The manifestation of these dehumanising practices can be subtle, such as with an increased focus on efficiency, a lack of warmth, limited personal care and an increased emphasis on technology (Jefferey 2020).

Galvin and Todres (2009) identified the need for heightened compassion and dignity in the healthcare system and in response, developed a "humanisation framework" (Ellis-Hill *et al.* 2021). The humanisation framework built upon the concepts of patient-centred care as elements of the humanisation framework overlap and align with the patient-centred care approach (Busch *et al.* 2019). A study performed in the United Kingdom by Ellis-Hill, Pound and Galvin (2021) found that four existential principles underpinned the humanisation framework.

These principles include:

1. Reality is mutually arising as opposed to a reality out there.
2. Reality is constantly changing rather than being fixed.
3. There is a need to work from within the system in place of controlling reality from the outside.
4. Reality can only be accessed through human knowing and not through intellectual knowledge alone.

This study found that when implemented, the humanisation framework allowed patients to "feel more human" in the healthcare space and it was noted that its implementation made a great difference in the overall experience of both the patients and healthcare workers (Ellis-Hill *et al.* 2021). There is a paucity in the literature in the South African context.

This framework can be categorised into eight dimensions that impact the humanisation of care, each of which describes the juxtaposing impacts of care (Galvin *et al.* 2020*).*

These eight dimensions include:

- Insiderness vs objectification.
- Agency vs passivity.
- Uniqueness vs homogenisation.
- Togetherness vs isolation.
- Sense-making vs loss of meaning.
- Personal journey vs loss of personal journey.
- Sense of place vs dislocation.
- Embodiment vs reductionism.

The understanding imparted by this humanisation framework provides insight into how dignity and compassion in the Chiropractic space could influence a patient's experience, thus making it pertinent to this study. Furthermore, with the utilisation of this framework, insight can be gained into how to improve the healthcare system from the inside out for this vulnerable population.

2.3. CHIROPRACTIC CARE

2.3.1 Complementary and Alternative Medicine

Complementary and alternative medicine (CAM) is a term used to describe the atypical medical practices that are used in conjunction with or in place of allopathic medical practices (Ng and Mohiuddin. 2020). The global prevalence of CAM rests between 9.8% to 76%; however, in Africa, Asia and the South Americas this type of care accounts for up to 80% of all care received (Ashraf *et al.* 2019). This expanding adoption of CAM over conventional medicines is thought to be attributed to its affordability and accessibility, as well as its enhanced perceptions with regard to safety and efficiency (Ashraf *et al.* 2019). CAM can also be considered to align better with some spiritual and religious beliefs (Ashraf *et al.* 2019).

These CAM practices can be classified into five broad groups, including energy medicine, mind-body medicine, whole medical systems, biologically based practices and manipulative body-based practices (Veziari *et al.* 2019). The Chiropractic profession falls under this last banner and aims to follow a holistic non-invasive approach to healthcare. Chiropractic care places emphasis on promoting the body's natural healing abilities, while also focusing on patient education and disease prevention.

The CAM field has been met with scrutiny with regard to its position in the evidence-based paradigm (Veziari *et al.* 2019). Traditionally, CAM therapy relied heavily on tradition and empirical experience, rather than scientific evidence (Veziari *et al.* 2019). The South African Chiropractic education system is currently working to address this obstacle, with research being a requirement of their studies (DUT 2021).

With CAM being so highly utilised in low economic regions such as South Africa, there is an increased likelihood of individuals in KZN seeking out Chiropractic Care, especially from public clinics like the DUT CDC. The reduced cost of the DUT CDC makes it an essential tool for underserved populations such as the elderly. The importance of not ignoring this exponentially growing population is clear because through understanding their musculoskeletal burden, CAM has the potential to relieve the already fragile medical system in South Africa. The increased likelihood of elderly individuals pursuing CAM makes this study pertinent as understanding their experiences and perception will provide insights into the benefits CAM can provide to this section of the population. This study also aims to fill in some of the paucity in the literature currently related to CAM research allowing the CAM field to move more into the evidence-based paradigm.

2.3.2 History of Chiropractic Care

In its 128-year history, Chiropractic has had a tumultuous path while struggling for legitimacy. The Chiropractic profession was conceived on the 18th of September 1895 by a former teacher turned naturalist healer named D.D. Palmar (Johnson 2020). It was Dr Palmar who, in the subsequent two years, founded the first educational institution of Chiropractic; however, he would never see his profession gain its legalisation during his lifetime. This process of Chiropractic legalisation in the USA only started following his death in 1913. It then took a further 61 years for Chiropractic to be legalised in all 51 states in the USA (Johnson 2020).

In the late 1800s, when Chiropractic was still in its infancy, the American Medical Association, which represented a juvenile version of the conventional medicine we know today, gained a monopoly over American healthcare (Johnson 2020). This body worked to coerce legislature in their favour, resulting in all other forms of healthcare being illegal. This was at a time when conventional medicine was known for both its heroic and brutal methods that had high risks

of morbidity and mortality for their patients. In contrast, Chiropractic was still a non-evasive and drug-free practice (Johnson 2020).

Although the majority of chiropractors practising in the world today are still situated in the birthplace of Chiropractic, the USA, the profession has grown and stretched across the globe (Johnson 2020). The profession has now become both accredited and legalised in countries on all seven continents, with more than 90 different countries being registered members of the World Federation of Chiropractic (WFC 2009).

Understanding the history of Chiropractic will lend insight into the factors that, with time, have affected the Chiropractic profession. There is a paucity with regard to the impacts that the Chiropractic profession's growth has had on it patient's experiences and perceptions. The elderly population can provide keen insights into how a change in population perception may have occurred over the years, with the population having had lived experience for the entirety of the profession's legalised existence.

2.3.3 Chiropractic Care Utilisation

Currently, the most influential factor in the pursuit of Chiropractic Care is the recommendations of others (Brown *et al.* 2014). The most common source of this is peer council from friends and family, while verbal communication is a primary drive towards new Chiropractic utilisation (Brown *et al*. 2014; Robbertze 2018). There is, however, a high racial bias evident in the utilisation of Chiropractic Care as the white population dominates its use (Gliedt *et al.* 2023). Socioeconomics also impacts utilisation, as higher earners are more likely to pursue Chiropractic Care in comparison to lower earners (Gliedt *et al.,* 2023). Furthermore, socioeconomic status greatly influences health-seeking behaviour, with those in the affluent population having greater compliance and health information-seeking behaviour (Muiruri 2019). Chiropractic care is severely underutilised in the elderly population, with a mere fifth of elderly individuals making use of their treatments globally (de Luca *et al.* 2021).

Although more research into this field is required, there is a correlation between advanced age and limited healthcare literacy (Aljassim and Ostini 2020). When healthcare literacy and knowledge are limited, the utilisation of healthcare services can be significantly impacted (Burke, Nahin and Stussman 2015). Lack of knowledge affects the utilisation of complementary health practices, regardless of back pain, that potentially would motivate its

use (Burke, Nahin and Stussman 2015). This same lack of understanding may also have a causative effect of reduced utilisation and, even more extreme, avoidance due to anxiety.

Healthcare literacy and education levels are seen to have a negative correlating impact on anxiety, with those with limited understanding having a higher likelihood of anxiety (Mulugeta, Ayana and Sintayehu 2018). The fear-avoidance model explains how a patient's response to musculoskeletal pain can sit on the two extremes of either 'confrontation or avoidance' (Leeuw *et al*. 2007). This model details how pain can be misinterpreted as a threat, thereby creating avoidant behaviour in response to their pain-related fear. Safety-seeking responses should only be adopted in cases of acute pain as paradoxically, in chronic pain, this aggravates the issue, resulting in long-term consequences of disability, disuse and heightened pain sensitivity in the future (Leeuw *et al*. 2007).

2.3.4 Chiropractic Care in South Africa

The Chiropractic profession in South Africa has had a tumultuous past, requiring much determination, in order to reach the point of recognition it has today. It was in 1926 that the first chiropractor arrived from the USA and established his practice; however, it would take a further four decades before the profession would receive any legitimacy (CASA 2022). This struggle for legitimacy began making progress in 1971 with the formation of the Chiropractic Association of South Africa (CASA), who are still in effect today. This organisation was paramount in having the 'Chiropractic Act' passed, which provided legitimacy to already qualified and practising chiropractors but restricted any future chiropractors from registering to practice in South Africa. In 1981, Chiropractic Care came extremely close to being taken under the auspices of the South African Medical and Dental Council but, unfortunately, this inclusion was lost by just one vote (CASA 2022). As a result of this, the Associated Health Services Professions Board was founded in 1982. This board would later become known as the Allied Health Professions Council of South Africa, who are still in effect today (CASA 2022).

After nearly six decades following Chiropractic's inception in South Africa, amendments were made allowing new chiropractors to be legally registered into the profession. This led to the development of a Chiropractic curriculum, the first of its kind, and an exit level master's degree. This set a new standard for Chiropractic education on the international stage, that has since been reproduced in other institutions globally (CASA 2022).

The South African context regarding Chiropractic ‘s perceptions and experiences is unique. The Chiropractic professions’ inception in South Africa is less than 100 years ago and has only been a legitimised profession for 52 years. Furthermore, chiropractors only started being educated locally, with the required master’s degree qualification, 34 years ago, making the first output of locally educated chiropractors only entering into practice in 1994. Therefore, studying the elderly population’s experiences and perceptions that relate to Chiropractic Care can provide exceptional insights into the profession’s growth and perception changes that have occurred through this population’s lived experience.

2.3.5 Chiropractic Education in South Africa

South Africa is the only country on the African continent currently offering Chiropractic education, thereby making South African chiropractors the pioneers of Chiropractic Care and Chiropractic education in Africa (WFC 2012). The first educational institution in South Africa to start providing Chiropractic education was Natal Technikon, which enrolled its first class of Chiropractic students in 1989 (CASA 2022). Currently, there are two Chiropractic teaching facilities in South Africa, the DUT in KZN and the University of Johannesburg (UJ) in Gauteng, each of which has a teaching clinic in which the fifth and sixth year students gain practical experience by treating patients (DUT 2021). The DUT CDC is where registered fifth and sixth year Chiropractic master’s students perform their clinical practicum and first become responsible for the diagnosis and treatment of patients under the supervision of a qualified clinical instructor (DUT 2021). The purpose of students treating in this controlled environment is to teach patient care for future practice (DUT 2021).

The impact of local Chiropractic education on the Chiropractic professions is evident as, in South Africa, 84% of chiropractors are aged between 26 to 50 years and the majority are educated in South Africa according to the South African standard of education (Melka *et al.* 2021).

The DUT CDC is open to the general public and has significantly lower fees in comparison to private Chiropractic practices, therefore, making it more affordable and accessible to the general public. The elderly population make up a majority of individuals attending the DUT CDC, as according to Schirmer (2019) 63% of patients who utilise the DUT CDC are retired. Therefore, the DUT CDC provides excellent access to the Durban elderly population and, in

return, the information acquired through this study can be employed to further improve the care DUT is able to provide for this population.

2.3.6 Chiropractic Accessibility in South Africa

In South Africa, the accessibility of Chiropractic Care is predominantly limited to that of private practice. This is the result of legislation in the Health Professions Act 56 of 1974 that prevents mainstream healthcare professionals registered with the Health Professions Council of South Africa from sharing premises with CAM professionals (AHPCSA 2010). The impact of this legislation prevents chiropractors from working in hospitals and public clinics and consequently limits the profession to private practices. This has a detrimental impact on the South African population as it results in limited access to Chiropractic Care by those who are disadvantaged and cannot afford the cost of treatment from a private practice.

The limited accessibility of Chiropractic by vulnerable populations, such as the elderly, makes the South African context of Chiropractic unique compared to that of other countries. There is currently a paucity in the literature regarding the impact limited access to Chiropractic Care in South Africa may have. Observing the elderly's perceptions and experiences of Chiropractic in public clinics, such as the DUT CDC, could provide perspective and rare insights into the benefits of allowing Chiropractic Care into the public space.

2.3.7 Chiropractic Accessibility in KZN

A study performed at the DUT CDC revealed that this public clinic was frequented by patients of all age groups requiring attention for musculoskeletal conditions, including a significant number of patients over the age of 60 years (Schirmer 2019). In the audit by Schirmer (2019), it was found that 63% of patients attending the DUT CDC were retired, and a further 20.1% of patients were unemployed (Schirmer 2019). Thus, of the patients attending the DUT CDC, 83.1% have no working income and rely solely on public healthcare facilities for care, as any supplementary medical costs require funding from government pension funds or the support of family. From these statistics, it can be deduced that a large majority of patients utilising the DUT CDC may be doing so due to its financial leniency, thus making it a viable resource in the community.

More than 75% of the elderly population in South Africa rely on state-provided pensions as their main source of income (Stewart and Yermo 2009). The state pension, which is a small amount, usually only covers the bare necessities in terms of basic living expenses (South African Social Security Agency 2021), which leaves little funds left for elective treatments, such as Chiropractic Care. The utilisation of public treatment facilities in South Africa, such as the DUT CDC, is common, as only 22.9% of South African elderly patients have medical aid and, therefore, the remaining 77.1% of the population have to fund their own treatments (Statistics South Africa 2017).

Most South African chiropractors practice in privately owned clinics and charge significant fees for their services (Melka *et al.* 2021). The lower fees at the DUT CDC provide an essential service to the economically disadvantaged communities of KZN. The elderly population constitute more than half the patronage at DUT CDC, making this clinic an excellent access point to the insights imparted by this population through their perceptions and experiences. Utilising patients from the DUT CDC for this study allows the study's population to more accurately represent Durban's community in its totality, rather than just those who are economically advantaged.

2.3.8 Chiropractic Scope of Practice in South Africa and Globally

Chiropractors are considered specialists of the musculoskeletal system. The profession has gained much popularity as a non-invasive and non-pharmaceutical way to treat conditions of the muscles, joints and bones. Chiropractors have the expertise to evaluate patients, diagnose musculoskeletal conditions and provide treatment and management for these conditions (Allied Health Professions Act 63 of 1982). The majority of chiropractors practising in South Africa apply a diversified approach to the care they provide (Melka *et al.* 2021). Chiropractic treatments are often diverse and multifaceted but commonly consist of Chiropractic SMT, the use of auxiliary therapies and patient education (DUT 2022). In South Africa, the auxiliary therapies chiropractors are qualified to use include ultrasound, transcutaneous electrical nerve stimulation (TENS), LASER, interferential current therapy (IFC), traction, dry needling, ischemic compression, infrared therapy and shockwave therapy (DUT 2022).

The diagnostic skills in the Chiropractic scope of practice enable chiropractors to act as primary care providers for musculoskeletal conditions, thus differentiating the profession from other specialities (Brown *et al.* 2014; Cambron, Cramer, and Winterstein 2007). However, there are demographic variations in this knowledge, as in Australia, 44% of the patients surveyed considered Chiropractic Care their primary choice for musculoskeletal management,

whereas in the USA, only 19% of the population views chiropractors as primary healthcare providers (Cambron, Cramer, and Winterstein 2007; Brown *et al.* 2014). Recommendations to display and educate patients on chiropractor's diagnostic abilities to improve the perception of Chiropractic as primary care have been suggested; however, the implementations have yet to be successful (Cambron, Cramer and Winterstein 2007). Patient understanding surrounding the scope of Chiropractic practice is often limited (MacPherson *et al.* 2015).

The large scope of practice, employed in Chiropractic Care, is a highly beneficial tool when developing treatment plans for the elderly population. The diverse assortment of treatment modalities and non-invasive options available guarantees these individuals the highest standard of care regardless of any comorbidities they may have in place. The knowledge gained through the experiences of this population, who often do not hold candidacy for modalities such as manipulation in the osteoporotic, can provide insight into the paucity seen currently in the academic space, regarding which modalities should be more highly recommended to this medically vulnerable population.

2.4 PERCEPTIONS

2.4.1 Perceptions and How Are They Formed

Perceptions are the way sensory stimuli are interpreted and organised based on information obtained from an individual's environment. This is a psychological process that is unique to each individual and results in the formation of a perception that is most applicable to that individual's situation and experience. This perception development is facilitated by the body's sensory organs in conjunction with the individual's emotions, preconceptions, personality and previous experiences (Hayes 1994; Maund 1999; Atkinson *et al*., 2000). Understanding the psychological processes, namely the development of a perception, can only be attained by talking to this target population, thereby making a qualitative study the most suitable format to achieve this understanding.

In the elderly population, there is a higher likelihood of patients having previously developed negative perceptions towards Chiropractic Care because, in the past, before Chiropractic moved toward an evidence-based practice, it had a poorer reputation than it does now (Goldstein 2000). Therefore, it is imperative to identify and correct any of these

misconceptions within the elderly population and in doing so help repair the image of the profession.

2.4.2 Factors Influencing Perceptions

Several factors can affect how we develop perceptions, including our expectations, prior knowledge and knowledge of the current context, and previous experiences (De Lange, Heilbron and Kok 2018). Expectations have a strong influence over our perceptions. The world we live in tends to be easily predictable. There is permanence in most of the objects around us and any changes that do occur do so slowly. This perpetual predictability has led to the construction of internal models that allow us to predict future inputs based on past and current stimuli. The predictions we make are our expectations and they increase our sensitivity for the anticipated stimulus. The risk with expectations are that if the input stimulus we receive is ambiguous or imperceptible, this can lead to bias over our perceptions (De Lange, Heilbron and Kok 2018).

The antecedent knowledge individuals accumulate has a significant impact over their perceptions. This knowledge is obtained through a lifetime of experiences and shapes the way perceptions are formed. When this occurs, the individual's prior knowledge is used to provide context to the stimuli being processed, making it more easily interpreted (De Lange, Heilbron and Kok 2018). The knowledge of the current context can also be used to help shape an individual's perceptions. For example, the knowledge of the environment an individual is in can help provide context clues that will influence the development of the individual's perceptions (De Lange, Heilbron and Kok 2018). Previous experiences can also influence perceptions; however, this only occurs over shorter periods of time (De Lange, Heilbron and Kok 2018).

2.4.3 Perceptions of Chiropractic Care

The perceptions of Chiropractic have fluctuated in its near 130-year history. There have been incredible advancements in Chiropractic education and accreditation but these have been obscured due to intra-professional conflicts and poor public perceptions (Simpson 2012). The Chiropractic community has endured decades of conflicts about what the profession's identity is (Glucina *et al.* 2020). There were two opposing groups that could be identified: those who follow the biomedical musculoskeletal-based treatment style and those who follow the vitalistic vertebral subluxation-based treatment style.

Those who follow the vitalistic approach generally share in the ideology that all disease can be attributed to the presence of a spinal subluxation (Glucina *et al.* 2020). In contrast, the biomedical approach suggests that reduced pain and improved functionality can be attributed to resolving dysfunction in the body's joints and muscles. These contradicting belief systems have hindered the profession's progress, as well as led to inconsistent perceptions of what Chiropractic is by the public (Glucina *et al.* 2020).

The vitalistic approach has further hindered the profession's legitimacy, damaged public perception of Chiropractic and limited the profession's inclusion into the greater healthcare and scientific landscape (Gislason *et al*. 2019). It is important to note that these vitalistic views have significantly decreased in popularity since the profession's conception, with only one in five chiropractors still holding to these traditional views, while the updated biopsychosocial model has gained popularity (Busse, Pallapothu and Vinh 2021; Gislason *et al*. 2019).

Patients tend to have a high satisfaction level in relation to the Chiropractic Care they receive (Glucina *et al.* 2020). A USA study conducted using surveys by Alcantara *et al.* (2019) suggests that Chiropractic patients have an efficacy rating of 87% with regard to symptom managing Chiropractic Care and a 95% efficacy rating for wellness Chiropractic Care. However, according to a New Zealand survey performed by Buscomb *et al.* (2022), individuals who have not received any previous Chiropractic Care are less likely to know about chiropractors and the care they are able to provide. A study performed at Botswana Mahalapye District Hospital supported these findings as the perceptions of patients receiving Chiropractic Care through the World Spine Care pilot program were mixed (Chihambakwe *et al.* 2019). Although some patients did ultimately achieve pain relief others discharged themselves from the care prematurely due to the treatments being unfamiliar and painful (Chihambakwe *et al.* 2019). Additional South African literature regarding the shift in perceptions of Chiropractic Care is necessary. This study will provide South African context to the profession's perceptions by utilising the elderly population whose lived experience encapsulates a majority of the profession's fraternity, thereby granting access to how this profession's perceptions may have been altered by time.

2.5 EXPERIENCES

2.5.1 Experience Definition

The Oxford Dictionary defines an experience as how the events observed by an individual can influence the manner in which an individual thinks and behaves (Oxford University Press 2020). Utilising the understanding gained from individuals' experiences can provide insights into their perceptions, which can in turn be used to improve future experiences (Neubauer Witkop and Varpio 2019). These insights allow the feedback to be fully utilised, ensuring its effectiveness, cultivating workplace learning and improving clinical reasoning (Neubauer Witkop and Varpio 2019)

2.5.2 Factors Influencing Experiences

There are several factors that influence the patient experience. Understanding these factors is significant in order to achieve a positive patient experience. Creating a positive patient experience is optimal as evidence suggests that it leads to improved treatment outcomes, as well as greater patient compliance (Agency for Healthcare Research and Quality 2021).

Patient experiences have multiple influencing factors, including good patient-practitioner communication, high-quality care, pleasant facilities, practitioner punctuality and the ability to access information easily (Karam 2017). When treating elderly patients, it is important to ensure that all queries and concerns are clearly communicated between the practitioner and patient because, in the majority of cases, elderly patients are more limited with regard to access to information when compared to younger generations (Pieri and Diamantinir 2010; Guner and Acarturk 2020).

2.5.3 Factors Influencing the South African Public Healthcare Experience

A qualitative study performed by Naidoo and van Wyk (2019) revealed that elderly individuals receiving primary care through the public South African healthcare sector were largely dissatisfied with their healthcare experiences. The five key areas where this dissatisfaction stemmed were long waiting times for care; a disease-centred approach to care; a perceived lack of compassion from healthcare providers; the pill burden; and a need for priority care in the elderly.

The services provided by public clinics use a disease-centred approach to care which resulted in a fragmented care experience (Naidoo and van Wyk 2019). This disease-centred approach

has also resulted in the elderly perceiving a lack of respect and care from healthcare professionals due to the disinterest experienced about their concerns (Naidoo and van Wyk 2019). When patient concerns are overlooked, it results in non-compliance, which negatively affects the outcome of the patients receiving care (Kelly, Mrengqwa and Geffen 2019).

In order for an effective communication to exist, a two-way dialogue between patient and practitioner is required. In some cases, a good patient experience of communication can have a greater impact than the physical care provided (Kwame and Petrucka 2021). The importance of healthcare professionals to demonstrate both kindness and compassion in the care they provide to the elderly is paramount to achieve a positive experience (Naidoo and van Wyk 2019).

Over 80% of the financially vulnerable elderly individuals in the Western Cape of South Africa shared their experience of finding the personnel at public clinics to be unhelpful (Govender and Barnes 2014). Furthermore, the management of chronic pain in the hospital setting was perceived as incompetent, with more than 70% of patients not receiving treatment at the time of admission, and a further half of these patients remaining untreated, even at discharge (Corsi *et al.* 2018). The elderly are the majority of these chronic musculoskeletal pain patients (Latina, *et al.* 2019). When the clinical care provided to the elderly is substandard, the negative perceptions of aging and the ability to successfully access care is reinforced. (Naidoo and van Wyk 2019).

The majority of general practitioners have never received or provided a Chiropractic Care referral, revealing that interdisciplinary communication is currently non-existent (Scholtz 2019). Naidoo and van Wyk (2019) suggested that geriatric care training in healthcare professions needs to be improved upon, with an educational focus on the integration of care and patient-centred care to improve the healthcare experience of the elderly population. The basis of this patient-centred care is founded on respecting and responding to each patient's care needs, preferences and values when making clinical decisions (Kwame and Petrucka 2021). The study by Naidoo and van Wyk (2019) identifies the need for South African medical policymakers to find a more resource-efficient method to provide quality care to the elderly population, as the population are currently dissatisfied with their care.

2.5.4 Factors Influencing the Chiropractic Care Experience

A patient's experience of Chiropractic Care is closely linked to the satisfaction surrounding the care they have received. A quantitative study investigating patient satisfaction was performed at the DUT CDC, revealing that patients who have had their experience of Chiropractic Care meet their expectations, are able to attain high levels of patient satisfaction (Ruthnam 2021). There are several factors impacting a patient's satisfaction and, in turn, their experience, the most notable, according to a satisfaction study by Moret *et al.* (2007), being age. Moret *et al.* (2007) noted a consensus in the literature where a patient's age has a positive linear correlation to their satisfaction, up until the age of 65 years, but they also identified that this correlation flips to the negative after the age of 65 years.

The findings of Ibraheem, Ibraheem and Bekibele (2014), in their descriptive study of Nigerian patients, suggest that elderly patients attain higher satisfaction levels in the healthcare space in comparison to their younger counterparts. According to Naseer, Zahidie and Shaikh (2012) and Afzal *et al.* (2014) this is a result of this population's lowered expectations, whereas Schoenfelder Klewer and Kugler (2011) suggest that their high satisfaction is the result of receiving care that is more temperate, to compensate for their age-induced fragility.

According to Ruthnam (2021), there was no significant correlation between a patient's age and their satisfaction levels, which is further supported by the findings of Boudreux's (2000) survey study. Other influencing factors suggested by Ruthnam (2021) include the support staff of the practice, the practitioner's attitude toward the patient, the practitioner's communication skills and the interest taken in the patient. Furthermore, Alcatara *et al*. (2019) found through their survey study in the USA that Chiropractic patients, who do not experience adverse effects following their treatment, had higher satisfaction levels in comparison to those who did experience an adverse effect.

The inconsistency in the literature surrounding elderly patient's satisfaction highlights the importance of adding depth to this field of research through understanding this population's perceptions and experiences.

2.6 CONCLUSION

Through the review of existing literature, it is apparent that Chiropractic Care is a highly effective tool in the management of musculoskeletal pain. The prominent utility of this care is clearly documented on the international stage. However, the South African context is unique as access to these alternative care options are limited due to financial pressures and legislative restrictions.

The elderly population are one of the biggest consumers of Chiropractic Care in the international space subsequent to their elevated prevalence of musculoskeletal ailments. Furthermore, chiropractors have high confidence in the care they are able to provide for this vulnerable population, making it a vital tool in caring for the elderly. The reduced public availability in South Africa, however, presents a challenge to this financially strained population making the utilisation of this care difficult. It is paramount that care for this community is not overlooked as it is growing at an exponential rate.

Currently, South African based research surrounding care for the elderly is scarce, making this study pertinent to filling the paucity currently seen. Perceptions and experiences have been shown to be closely linked so, therefore, it is necessary to identify and address all aspects surrounding Chiropractic Care, in the hopes to improve future elderly patient's encounters and potential treatment outcomes. The following chapter will focus on the methodology and study design employed to perform this study.

CHAPTER THREE

METHODOLOGY

3.1 INTRODUCTION

This chapter presents the methodology that has been used within this study. This includes the study design, setting, population, participant recruitment and sampling. An in-depth discussion on the data collection techniques and data analysis protocols are also covered within this chapter.

3.2 STUDY DESIGN

This study was conducted within the qualitative paradigm using an exploratory, descriptive design, which is a design that was implemented to investigate a research problem that is not clearly defined (Brink 1998: 141-160). Qualitative research is used when a researcher wishes to gain insight into individuals' experiences, the meanings attached to those experiences and any opinion related to their experiences; therefore, this method of research was most appropriately suited for a study of this nature (Hammarberg, Kirkman and de Lacey 2016). This method allowed the researcher to organise and interpret the information collected to form the results (Hammarberg, Kirkman and de Lacey 2016).

This exploratory, descriptive design was applicable to this qualitative study as it allowed the experience to be depicted from the perspective of the individual who underwent the experience, as well as providing the flexibility to probe for insights into their experience (Brink 1998: 141–160). In utilising this study design, the desired outcomes were more focused on uncovering the significance and correctly depicting an experience instead of generating generalisable results (Grossoehme 2014). Descriptive research aims to describe the phenomena experienced by the participant by focusing on what has happened rather than why or how it has occurred (Nassaji 2015). An exploratory design was appropriately used in this study as there are limited qualitative studies surrounding the topic of perceptions and experiences of Chiropractic in the elderly population and, thus, this design helped the researcher gain a better understanding of the research problem without having to rely on previous studies (Labaree 2021).

3.3 STUDY SETTING

This study took place in a secure and private room, which was an area that was decided upon between the researcher and the research participant. The in-person interviews implemented two-metre social distancing between the researcher and the participant in compliance with Covid-19 safety protocols.

3.4 STUDY POPULATION

The study population was all individuals aged 60 years and older who have had at least one previous experience of Chiropractic Care in the Durban Metropolitan area.

3.5 PARTICIPANT RECRUITMENT

The researcher contacted the DUT CDC to request gatekeepers' permission to perform participant recruitment through the DUT CDC. The researcher then approached potential participants and provided an explanation of the study's objectives and intent. Individuals who expressed interest in participating in the study were then interviewed in a private clinic room in the DUT CDC.

3.6 SAMPLING

The type of sampling utilised was purposive sampling from a convenient sample. Purposive sampling is a non-probability form of sampling in which the researcher exercises their own judgement in identifying, at random, which participants are suitable for a study. The recruitment of participants from a clinical setting who are both available and meet the inclusion criteria requirements makes this a convenient sample that was employed. This method was thus suitable for this study (Etikan, Musa and Alkassim 2016:1-4; Setia 2016

3.6.1 Sample Size

A minimum sample size of 10 participants was set in accordance with qualitative guidelines suggested by Kumar, Kumar and Prabhu (2020). A total of 11 interviews were performed (data saturation occurred during the ninth interview but a further two interviews were performed to ensure no new information could be obtained).

3.6.2 Inclusion Criteria

- Participants were 60 years of age and older.
- The participant must have had at least one previous Chiropractic consultation.

3.6.3 Exclusion Criteria

- Participants who did not sign the informed consent form.
- Any participant who refused to be audio recorded.
- Participants who were in the pilot study.

3.7 MEASUREMENT TOOLS

A semi-structured interview guide (Appendix A) was used to obtain data from each participant. A semi-structured interview guide is a tool that is used in interviews and contains previously decided questions (Kallio *et al.* 2016). These questions allow the researcher to ask open-ended questions that guide participants through their interviews, allowing a fluid non-restrictive dialogue, while also ensuring that the interview remains on topic (Kallio *et al.* 2016). Probing questions are used to assist the participants in refining or expanding upon an answer (Keller and Conradin 2019). This style of data collection was best suited to the study as it allowed the participants to share their experiences in a systematic way, while also allowing the conversation to flow.

3.8 PILOT STUDY

In order to evaluate the selected questions, a pilot study was conducted during which one elderly participant was interviewed. The pilot study allowed the researcher to establish if their research questions were appropriate for the study and if the participant would be able to understand the questions being asked and, if not, to allow changes to be made to the research questions before the start of the study. The pilot study also provided the researcher with a gauge of how long each interview would be (De Vos *et al.* 2011). The pilot study participant must have had at least one Chiropractic consultation prior to participating in the pilot study and be over the age of 60 years.

3.9 STUDY PROCEDURE

The participants who fulfilled the inclusion criteria for the study were recruited from Chiropractic practices in the Durban metropolitan area, as well as the DUT CDC. The researcher gave a verbal explanation of the study to the potential participant. In addition to this, a letter of information (Appendix B) and an informed consent form (Appendix C) were given to the participants which they had to read and sign. The letter of information and informed consent were also transcribed into isiZulu (Appendix D) however these were not utilised as all interviews were conducted in English.

The researcher gained verbal consent from the participants to record the interview and obtained the relevant demographic information (Appendix E) from the research participants prior to the commencement of the interview. Interviews occurred within a private room, ensuring the privacy and comfort of the participants. The participants were informed that the interviews would be audio recorded and that they could withdraw at any point if they felt uncomfortable.

The open-ended questions were asked one at a time to the participants, allowing them sufficient time to answer; additionally, probing questions were used when needed. The participants were thanked for their time once the interviews had been concluded. The interviews were later transcribed verbatim for the purpose of theme and code extraction. The private information of the participants was kept confidential. Participants were allocated pseudonyms to ensure privacy.

3.10 COVID-19 PROTOCOLS

Covid-19 Protocols for In-Person Interviews

- The room in which the interview took place was fully sanitised before the participant arrived.
- The participant and researcher were both required to wear face masks throughout the duration of the interview.

- The participant and researcher both sanitised their hands before the interview commenced.
- The participants had their temperatures taken and recorded before the interview commenced.
- The participant and the researcher sat at least two metres apart.
- The participants confirmed that they had not been in contact with any individuals who were Covid positive in the past 14 days.
- The participant confirmed they had no Covid symptoms (Appendix F).

3.11 ETHICAL CONSIDERATIONS

Within ethics, there are four pillars: autonomy, justice, beneficence and non-maleficence. All four of these pillars must be upheld in order for an ethical study to ensue. Gatekeepers permission to conduct the research interviews at the DUT CDC was secured (Appendix G). Ethical approval (Appendix H) to conduct this study was awarded by the DUT Institutional Research and Ethics Committee (IREC), providing ethics reference number: 045/22.

3.11.1 Autonomy

Autonomy describes an individual's right to make an informed decision on whether they would like to participate in the study. In this regard, it is important to ensure that the participants fully understand their role in the study, before getting their formal consent that they are willing to participate (Brink, van der Walt and van Rensburg 2012).

Autonomy was ensured by providing the participant with a letter of information (Appendix B) and an informed consent form (Appendix C) that they had to read and sign. Verbal consent to audio record the interview before the interview commenced was also acquired. Autonomy also ensures that the participant will not be coerced or manipulated into participating in the study and all participants are able to terminate their participation in the study at any point. All participants' information was to be kept confidential. Participants were allocated pseudonyms to ensure privacy.

3.11.2 Justice

The pillar of justice is upheld by the guarantee that participant selection occurs fairly, with no bias affecting the selection process. Justice also ensures the participants' right to privacy. This was guaranteed by the interviews for this study being performed in a private room and by ensuring the anonymity of the participants throughout the study (Brink, van der Walt and van Rensburg 2012). Justice was ensured during participant recruitment as only participants who had already consented to research involvement during their DUT CDC intake paperwork were contacted. The identification of eligible participants was made through DUT CDC clinical records and a request for an introduction to the researcher was made by the treating student Chiropractor. All data will be kept at the Chiropractic Department at the DUT until it is shredded after five years. Electronic data will be stored on a password-protected computer and deleted after five years.

3.11.3 Non-Maleficence

This pillar upholds that no deliberate harm will occur towards the participant throughout the study (Lawrence 2007). However, the study topic's qualitative nature significantly limits the physical harm that may occur to the participants. The nature of this study brought up past experiences of patient neglect regarding care the participants received through mainstream healthcare sectors for their pain. The emotional harm of reliving having had their pain ignored brought on frustration in several participants, the emotional harm this caused is noted however was contrasted by the positive experiences gained through chiropractic care experiances. Non-maleficence was safeguarded by ensuring that all information provided remained confidential as no information provide will be linked back to them. This study involved interviews and, thus, no harm occurred to the participants.

3.11.4 Beneficence

For beneficence to occur, and for a study to remain ethical, there must be a benefit provided by the study. The benefit provided within this study is that the further understanding of elderly participants' experiences will be gained and will facilitate enhanced patient-practitioner communication. This understanding can be utilised by future students, as they will be better equipped in treating and understanding the perspectives of their elderly patients. This can allow for improved Chiropractic patient care provided for the unique elderly group of patients and improved treatment outcomes within this age group.

3.11.5 Trustworthiness in Qualitative Research

Within qualitative research, it is also important to ensure trustworthiness, and this can be achieved by focusing on ensuring credibility, conformability, dependability and transferability are all met (Lincolin and Guba 1986; Connelly 2016: 435).

3.11.5.1 Credibility

Credibility is the most important aspect of trustworthiness as it ensures that truthfulness occurs throughout the research and its results. This is seen in the study in which each participant is audio recorded, directly from which their interview is transcribed word for word. This ensures that all information provided by the participant matches exactly what they have said. The rechecking by a supervisor, as well as the researcher repetitively when going through the results to ensuring total correctness, further protected this (Connelly 2016: 435).

3.11.5.2 Conformability

Conformability is employed to ensure that there is no bias, which could occur throughout the study. This is ensured by the supervisor checking that the information obtained remains aligned to what was provided by the participant and that the researcher has remained neutral. This ensures that no bias can enter the study and therefore allows the results to remain unbiased (Connelly 2016: 435).

3.11.5.3 Dependability

Dependability ensures that the data remain unchanged throughout the study. The researcher recording all interviews, as well as having the transcripts checked by an external moderator, ensures dependability (Connelly 2016: 435).

3.11.5.4 Transferability

Transferability describes the level to which the data that are collected can be generalised to represent other locations or groups. The researcher needs to provide details on the study procedure and any information regarding the population and study location (Connelly 2016: 436). The transferability of the study will be supported by providing the demographics of the participants and a detailed study procedure.

3.12 DATA ANALYSIS

Thematic data analysis occurred using the Tesch method of thematic analysis. The Tesch method consists of eight steps, the first of which is data preparation. This occurred when the recorded interviews with each research participant were transcribed verbatim. The transcribed interviews were then authenticated against its corresponding recordings (Brink, van der Walt and van Rensburg 2012).

Next, the researcher read all the transcribed data, ensuring full immersion in the information, in order to make a list of any ideas or themes that emerged. Each question was separated into its own segment for ease of analysis. These ideas or themes were revised and any irrelevant ones were removed, and similar ones were grouped together. Codes were developed by abbreviating these ideas or themes. From this point, the development of categories occurred, which were used to describe the experiences being studied. These categories were refined further by verifying them against the original data to ensure that none were missed and that irrelevant categories were removed. The researcher then wrote a report interpreting the data with the aid of each code and category individually (Creswell 2009: 186; Theron 2015: 7).

3.13 CONCLUSION

Chapter three detailed the research protocols that were implemented in this study, as well as how the data was collected and analysed. The following chapter will present the study's findings.

CHAPTER FOUR

RESULTS

4.1. INTRODUCTION

This chapter will encapsulate and detail the information collected from the 11 semi-structured interviews that were performed by the researcher. The demographic information collected from each participant will be outlined.

The interviews were audio recorded with the consent of each participant and were later transcribed verbatim. The interviewer meticulously analysed these transcripts in order to deduce themes and sub-themes, which will be detailed in this chapter. Extracts from the interviews were quoted verbatim in order to substantiate the themes.

Once analysed, the data presented six themes, which provided insights into the perceptions and experiences of the elderly population in eThekwini.

4.1.1 Participant Demographics

Each of the 11 participants provided demographic information prior to the interview commencement. Each participant was screened for symptoms of Covid-19**.** An outline of the participants' basic demographic information can be seen in **Table 4.1**.

Table 4.1: Demographic characteristics of participants

Participants	Age	Gender	Presenting complaint
01	63	Male	Migraines and LBP
02	65	Female	LBP, Hip pain, shoulder pain
03	83	Male	LBP
04	73	Female	LBP
05	68	Female	Shoulder
06	61	Male	LBP and neck pain
07	76	Female	Knee and ankle
08	79	Female	LBP and shoulder
09	67	Female	LBP and Neck pain
10	80	Female	Neck
11	64	Male	Neck

4.2. MAJOR THEMES

Following data analysis, six major themes were extracted.

Theme 1: Understanding of Chiropractic Care.

Theme 2: Factors influencing the pursuit of Chiropractic Care.

Theme 3: Impact of care on the elderly experience.

Theme 4: Insights observed through a lifetime experience.

Theme 5: The impact of age on the elderly experience.

Theme 6: The draw of an alternative healthcare approach.

Each of the major themes identified were further extracted into sub-themes, which have been tabulated in Table 4.2:

Table 4.2: Summary of themes and sub-themes

	Thematic Descriptions
Theme 1	**Understanding of Chiropractic Care**
Subtheme 1	*Limitations in public understanding of Chiropractic Care*
Subtheme 2	*Challenges with Chiropractic language eloquence*
Subtheme 3	*Understanding of Chiropractic Care's scope of practice*
Subtheme 4	*Alleviation of pain*
Theme 2	**Factors influencing the pursuit of Chiropractic Care**
Subtheme 1	*Pitfalls of recommendation-based pursuit of care*
Subtheme 2	*Limitations in mainstream medical care options*
Theme 3	**Impact of care on the elderly experience**
Subtheme 1	*Care with patient communication*
Subtheme 2	*Effects of patients inclusion in care on the humanisation framework*
Theme 4	**Insights observed through a lifetime experience**
Subtheme 1	*Diversification of Chiropractic therapies utilised*
Subtheme 2	*Shift in management style*
Theme 5	**The impact of age on the elderly experience**
Subtheme 1	*Improved quality of life through Chiropractic Care*
Subtheme 2	*Age inclusion experienced in Chiropractic Care*
Theme 6	**The draw of an alternative healthcare approach**
Subtheme 1	*Desire for a non-pharmacological solution and long term relief*
Subtheme 2	*Fear of degeneration and surgery avoidance*

4.3 THEMATIC ANALYSIS

4.3.1 Theme 1: Understanding of Chiropractic Care

A variety of questions were posed to the participants, pertaining to their perception of Chiropractic Care, with the intention of gathering insights into this population's views about the profession. The level of understanding varied among participants: some had a scarce understanding, while others had a more solid comprehension of the profession and its offerings. Nevertheless, the majority of patients had difficulties articulating the concepts of Chiropractic Care.

When asked about their perceptions of Chiropractic Care, many participants had a vague or limited understanding of the profession and what it can provide. Some participants aligned their perception of the Chiropractic profession with its ability to alleviate their pain, while others described the Chiropractic scope of practice in response to questions regarding their understanding of the profession. The following subthemes expand upon these topics relating to the elderly's understandings and perceptions of Chiropractic Care.

4.3.1.1 Limitations in Public Understanding of Chiropractic Care

When participants were questioned about their perceptions of Chiropractic Care, many participants had a limited or disjointed understanding surrounding the topic.

One participant, when probed about Chiropractic Care, shared:

> *"Yeah, well, I don't know, I feel safe with a chiropractor.*" (Participant 8)

Another participant, when asked about their understanding, reported:

> *"Uh, practically zero."* (laughing) stating further:
>
> *"Uh Well, to be honest, it's very little that I know, I thought there would be a manipulation of bones or putting joints to get them back in. You know, I was unsure and I, you know I just thought I must try this."* (Participant 3)

Other participants also discussed these limitations in their previous understandings about the care chiropractors can facilitate. One participant, when communicating their preconceived expectations of Chiropractic Care, shared:

> *"It's just, I- I- thought it was just like needles."* (Participant 2)

Expressing further that the full capacity of Chiropractic Care surpassed their expectations:

> *"Ja, but because you - they do so much of other things. There's paperwork, they're taking your umm pressure and - So it's - it's quite a long process when you visited hey and today. Ah, definitely did something else with me. I - I can't - I don't know what she – something." (*Participant 2)

An additional participant disclosed the sentiment of limited understanding when they stated:

> *"No, no, I didn't know what to expect. I thought it was just hands.*" (Participant 5)

This participant continued by saying*:*

> *"Umm, I knew, I just knew that if you had a bone problem or you know terrible body pains and things like that with your structure, that they could relieve- help relieve it."* (Participant 5)

When reflecting on her first appointment, Participant 9 expressed fear:

> *"In fact, the first day I came, and I was worried, I just wanted to see what they can do. I don't know. But uh, after that when I got my first treatment, I was very happy. That's why I kept on coming."* (Participant 9)

An additional participant shared this fear when discussing the Chiropractic Adjustment:

> "Well, that's what I was scared of, the bone manipulation bones, you know, the, the bone manipulation" (Participant 8)

Another participant, when ruminating on her previous perceptions of Chiropractic Care, shared:

> *"No, I didn't know, I didn't know, I didn't know, really, I didn't know anything. But I knew I had some inkling that what it's all about. it will be exercises and the needles. And uh, you know, breaking of, I had some idea, but I didn't have I didn't know too much. But*

as I came, I found it very, very interesting. And basically, it reduced pain; it reduced numbness for me." (Participant 10)

Most participants linked Chiropractic to the care of joints, muscles and bones or to the spine in general; however, they occasionally reported fallacies when explaining how the treatments worked or linked to the related anatomy.

An example of a participant making reference to the spine to explain their understanding of Chiropractic Care is:

"Umm, Chiropractic is the readjustment and alignment of this, well the, basically the spine um and all the associated umm, err things that are associated to the spine." (Participant 1)

A second participant made reference to how Chiropractic Care maintains mobility in the spine:

"…keeps your spine loose, and you know, so forth." (Participant 10)

Two additional participants referenced Chiropractic Care and the idea of moving the bones and joints 'back in' as the mechanism of the Chiropractic Adjustment:

"Uh, Well, to be honest, it's very little that I know; I thought there would be a manipulation of bones or putting joints to get them back in. You know, I was unsure, and I, you know, I just thought I must try this." (Participant 3)

"Well, it helps with your bones and all your ailments, your muscles and everything like that. Ja, puts you back into place." (Participant 5)

One participant referenced how chiropractors provided care for the back in general:

"Yeah, the first time I was told, if you ever have a back problem, go and see a chiro." (Participant 4)

Participant 7 spoke of Chiropractic's holistic nature when approaching caring for the musculoskeletal system:

> *"Umm, well, its - it's a holistic form of, of treating, umm, a body that's- that's out of alignment. umm, bones, muscles, ligaments, and tendons."* (Participant 7)

One participant spoke of how Chiropractic Care was purely focused on the muscles, unaware of the joint and connective tissue component of the care:

> *"Umm, it's dealing with the muscles that, that are in the area where the pain is. Umm, it's not treating the bones, umm."* (Participant 11)

Of the participants, two associated treatments to the incorrect anatomy in their responses:

> *"She put a needle into the joint."* (Participant 3)
>
> *"Manipulation of muscles… and realigning them."* (Participant 6)

This lack of eloquence when discussing Chiropractic Care will be detailed further in the following section.

4.3.1.2 Challenges with Chiropractic Language Eloquence

During the course of the interviews, the participants expressed either a significant misuse of terminology or a lack of understanding of Chiropractic terminology. When referencing the different Chiropractic principles, the participants often used alternative language to describe them. A topic where this alternative language is very commonly used is during descriptions of the Chiropractic Adjustment. Several means of expression were utilised to describe this common Chiropractic technique, one of which is seen with two participants using a combination of the words 'bone' and 'manipulation' together when referencing a Chiropractic Adjustment:

> *"…manipulation of bones or putting joints to get them back in"* (Participant 3)
>
> *"Well, that's what I was scared of, the bone manipulation bones, you know, the, the bone manipulation."* (Participant 8)
>
> *"So they, ja, the only thing I didn't like was the manipulation of the bones."* (Participant 8)

Another phrase frequently mentioned by participants, when describing the Chiropractic Adjustment was ‘put back into place’. Examples of this phrase and its variations in the transcript include:

> *“And it hasn’t been adjusted, and the adjustment hasn’t worked, but maybe that’s something that you know that that sort of sharper sort of knockdown of your hip to, to, to adjust your hip back into place.”* (Participant 1)
>
> *“…manipulation of bones or putting joints to get them back in.”* (Participant 3)
>
> *“And now it’s a different thing. Now they’ve taken care of the patient’s pain before they just put bones into place.”* (Participant 4)

Two participants made an even move vague reference to the Chiropractic Adjustments mechanism attributing it to the back in general:

> *“I mean, it’s only one treatment and um, to put my back- back in place, when it’s out will take time. I’m very, very stiff.”* (Participant 4)
>
> *“Well, it helps with your bones and all your ailments, your muscles and everything like that. Ja, puts you back into place.”* (Participant 5)

Participants often expressed imagery of breaking to depict the Chiropractic Adjustment in relation to the resulting cavitation experienced. Instances, where breaking is illustrated, include:

Three participants used this ‘breaking’ imagery in reference to the back.

> *“Yes, and so I just went up to her. And then, and I told her the where I had my pain and all that. And then she did some, umm, breaking of the back. I don’t know what y’all call it.”* (Participant 2)
>
> *“…breaking of the low back, breaking up the upper back, and uh stuff like that, which really helps.”* (Participant 10)
>
> *“So it breaks the lower back you get a bit of relief.”* (Participant 10)

One participant makes references to the Chiropractic Adjustment 'breaking' down presumably scar tissue, while two participants amalgamated the dry needling and Chiropractic Adjustment techniques:

> *"Manipulation. Yeah. Like I said, the needles do work. There's nothing wrong with the needles. But yeah… Manipulation Because you're feeling that breaking down of that tissue."* (Participant 6)

> *"I'm doing now is the needles basically stretches the breaking of the upper back, the breaking of the lower back."* (Participant 10)

When clarifying what they meant by breaking, one participant shared:

> *"It breaks, meaning like a crack."* (Participant 10)

This participant describes how the previous conception of breaking was corrected once patient education was provided:

> *"I thought they were breaking bones, But the, it's uh, obviously air bubbles that's in-between."* (Participant 4)

Participant 10 uses breaking imagery one additional time in the discourse to describe an injury to her spine:

> *"When I picked up a bag at the airport, and put it on to the, in customs, put it onto the counter, I felt like click, you know something like broke at the back."* (Participant 10)

When discussing the resulting cavitation from a Chiropractic Adjustment, participants often made use of onomatopoeic descriptions. Occasions, when this occurred during the interviews, include:

Three participants used the word 'click' to describe a cavitation:

> *"Um, it's probably because he never uh, you know, he never got to that last manipulation, you know, the sort of the last crick or click or whatever."* (Participant 1)

> *"Ultrasound. Sorry. Um, and when they clicked my, my, my left leg, because it felt like it wasn't quite right."* (Participant 4)

"No. You know, uh this guy came from America, and he was recommended. But I didn't like that. Pulling the owns and clicking and the legs. That didn't, that didn't appeal to me." (Participant 8)

While three participants described the Chiropractic cavitation as a 'crack':

"Where normally people would just, like, give you a bit of a crack here and there. So turn your legs here and pull your body this way. And then you hear a couple of noises, and then you okay, you're fine." (Participant 4)

"Absolutely. Then you go into the room, you pay your money, and they give you a couple of cracks here and there. I thought they were breaking bones, But the, it's uh, obviously air bubbles that's in-between." (Participant 4)

"Oh, definitely safer. Yeah. And I think that the whole concept here, is that a better understanding of Chiropractics now, whereas before it was, so I've been going from that time when it was the good old get the crack in first you know." (Participant 7)

"Yes, definitely. Yes. I've always- look Chiropractics has always helped me but umm definitely, I think now there's a lot more of the working on the soft tissue rather than getting in and having a good old crack." (Participant 7)

"It breaks, meaning like a crack." (Participant 10)

Alternative uses of the descriptive 'click' include:

"I felt like click, you know, something like broke at the back." (Participant 10) in reference to an injury to her spine.

"And umm I had - the first one I had, umm he clicked my neck…But then when I went much later to a different chiropractor. He didn't, he didn't click my neck." (Participant 11) when referring to the Chiropractic Adjustment.

"…that I was more aware of my body. And if I did get a creek or a crack or an ache or whatever, I understood, it can be fixed. And umm, it's right to do that because it does get better." (Participant 11), when discussing the crepitus that may accompany ageing.

There were some occasions when participants amalgamated Chiropractic terms incorrectly. One example of this is seen when Participant 6 references manipulation, (i.e. the Chiropractic Adjustment) but incorrectly associates it with the myofascial system:

> *"Manipulation of muscles… and realigning them."* (Participant 6)

Another participant made a similar error in reference to the technique of dry needling:

> "*She put a needle into the joint*." (Participant 3)

This technique is utilised to treat the supporting structures of the musculoskeletal system and would not be placed into a joint within the Chiropractic scope of practice.

Participant 3 also utilised inaccurate terminology when referencing dry needling; this is seen in the appropriation of the word injection into this technique as seen in the quote:

> *"Yeah, you know but, uh, well, but I did expect something like that, you know, with the manipulation of your legs and bones and uh, the injection in the bed and the ultrasound. It was, uh, you know, but further than that, you know, I think you would only get from the X-ray."* (Participant 3)

Participant 10 misappropriated the term 'loose' when describing the impacts of Chiropractic Care on the spine, a descriptive normally used in reference to muscles,

> *"Practically is, basically trying is, that the treatment actually reduces pain, keeps your spine loose, and you know, so forth."* (Participant 10)

Another aspect where alternative language can be observed is with the term 'gadgets'. It was utilised by two participants to describe equipment chiropractors use to provide axillary forms of care.

Participant 3 made use of the term in reference to a TENS machine:

> *"Gadgets they put on? and you can feel these tingling, electric sparks, you know, and she increased it slowly, and she did that, uh, and uh, Aside was very good, I think."* (Participant 3)

While participant 11 employed the term to describe the advancements in technology implemented in Chiropractic Care:

> *"I umm, I accept that it's improved overall my, my years. There are more gadgets that we didn't have before; it was always just a massage and a press here and a press on the nerve uh there and rubbing a massage in that, but now it's needling and in all the other things, machines and the beds and the stretches and whatever there's so much more."* (Participant 11)

4.2.1.3 Understanding of Chiropractic Care's Scope of Practice

When the participants were questioned on what they understood about Chiropractic Care, the following respondents detailed the scope of care chiropractors can offer.

Participant 2 shared that their initial understanding was limited to the scope of a single treatment modality:

> *"It's just, I- I- thought it was just like needles."* (Participant 2)

She elaborated further, however, that once she had experienced Chiropractic Care first hand, this perception was altered:

> *"Ja, but because you- they do so much of other things. There's paperwork, they're taking your umm pressure and- So it's- it's quite a long process when you visited hey and today. Ah, definitely did something else with me. I- I can't- I don't know what she-something." (*Participant 2)

One participant revealed their understanding of Chiropractic Care to be the:

> *"Manipulation of muscles… and realigning them*." (Participant 6)

While another linked their understanding to Chiropractic treatments in general:

> *"I think, I think, kinda ja, I think there's my perception of a chiropractor is almost the treatment that I received, because I kind of knew what I was going, what ah. What I was going to a chiropractor for."* (Participant 1)

Another participant further detailed the events occurring during their care to reflect their understanding:

> *"Absolutely. Then you go into the room, you pay your money, and they give you a couple of cracks here and there. I thought they were breaking bones, But the, it's uh, obviously air bubbles that's in-between. I've learned to read up on stuff when I'm interested in doing something." (Participant 4)*

Only one participant referred to a chiropractor's ability to diagnose patients:

> *"Treating the muscles in, in the area of pain, umm and a bit of massage as such. And moving parts of your body, umm, relative to what the pain was, it might not be in that in that area of pain, but it was referred pain from another injury. Another part of your body, which, you know, it was causing some of the pain, but it was referred from pain."* (Participant 11)

Additionally, a participant expanded upon how chiropractors implement their care:

> *"Umm, its dealing with the muscles that, that are in the area where the pain is. Umm, it's not treating the bones, umm. Ah, I feel it's a lot, lot, umm, beneficial than physio. Umm, and physio is just to me, rubbing it and saying all better, better, you know, looking after little aches, but chiropractor is deeper. And it refers to -you have a pain at one place, but it's caused by a problem in another place. And chiropractors, chiropractors are umm knowledgeable on the whole of the body inside, outside, upside down inside and the relation between all your parts of the body."* (Participant 11)

A further two participants detailed the anatomical scope chiropractors specialise in caring for:

> *"Umm, Chiropractic is the readjustment and alignment of this, well the, basically the spine um and all the associated, umm, err things that are associated to the spine and it goes up also to the neck and um the sort of low lumbar and the hips. So umm, my adjustment that I have are mainly the hips and the lower lumbar and obviously the neck for because I suffer from migraines."* (Participant 1)

> *"Umm, Well, its, it's a holistic form of, of treating. Umm, a body that's, that's out of alignment. umm, bones, muscles, ligaments and tendons. I'm More Pro this than taking pills; I don't take pills."* (Participant 7)

4.3.1.4 Alleviation of Pain

When probed on what they understood about Chiropractic Care, the majority of the participants linked their understanding with the profession's capacity to alleviate their pain.

A majority of eight participants echoed the sentiment that Chiropractic Care has the ability to provide pain relief while discussing their understanding of Chiropractic Care:

> *"Umm, they got immediate relief. Umm, like I did. So you go in there with a migraine or with a tight back or neck and ah you out and it's- the relief is immediate."* (Participant 1)
>
> *"Oh okay, what I understand is that ah the treatments, the treatment helps with the relief of pain."* (Participant 2)
>
> *"And now it's a different thing. Now they've taken care of the patient's pain before they just put bones into place. That's a difference. And this was a quick thing. It was in and out. It wasn't- there's no slow manipulation and taking care of where it really hurts."* (Participant 4)
>
> *"Umm, I knew, I just knew that if you had a bone problem or you know terrible body pains and things like that with your structure, that they could relieve- help relieve it."* (Participant 5)
>
> *"It's can help a lot with my pains. It really does."* (Participant 8)
>
> *"A chiropractor. I would say it's like the, no not like the doctor, but some- someone that can help me with my pain and the years of study and as much as a doctor."* (Participant 8)
>
> *"Actually chiro-practices that we, we have got like for instances I have got lots of back pain and they come to them for my treatment and, and then I'm quite happy and get relief with the pain."* (Participant 9)
>
> *"Practically is basically trying is that the treatment actually reduces pain."* (Participant 10)
>
> *"Umm, its dealing with the muscles that, that are in the area where the pain is*." (Participant 11)

4.3.2 Theme 2: Factors Influencing the Pursuit of Care

The participants attributed their pursuit of Chiropractic Care to two main factors: one being the cluster of participants who credited the recommendations of others, such as family members, peers, medical doctors or publications, whilst the other factor driving participants to pursue Chiropractic Care was to bridge a gap where the mainstream medical system had failed them. Only two participants suggested their desire to have started Chiropractic Care earlier.

4.3.2.1 Pitfalls of Recommendation-Based Pursuit of Care

A total of seven participants referenced the recommendations of others as one of the influential factors on how they came to receive Chiropractic Care.

There was one participant, who attributed the recommendation of a friend for his pursuit of Chiropractic Care:

> *"I just acted on the this friend *name removed*, a friend of mine, who came here. and uh, yeah, so that's why I came."* (Participant 3)

Participant 5 spoke of their daughter's experience as the influential factor in their pursuit of Chiropractic Care:

> *"Oh, my daughter because she comes here and she said that I must try here. And umm and I've been happy with *name removed*. She's really good, yeah."* (Participant 5)

Similarly, a participant reflected on how Chiropractic Care is utilised by all family members:

> "*Definitely. Yeah, my whole family use uh the same chiropractors as we do. As I do and uh um ja, and our greater family also. Yeah."* (Participant 1)

When discussing their more recent utilisation of Chiropractic Care, a participant shared that:

> *"No, basically, I didn't see any chiropractors. But when I, when I was told by the doctor, I need to see a chiropractor. That's when I said, let me get it done. Because in 2016, I was suffering from there on."* (Participant 10)

A unique factor presented by a participant was that the consumption of print media compelled them to seek Chiropractic Care:

> *"No, I saw the article in the Berea mail. Okay. And then I thought, uh, should I or shouldn't I? Then I spoke to a friend. She said try it. You know, and I should have come earlier."* (Participant 8)

One participant largely credited a past neighbour as the factor that was influential in their pursuit of Chiropractic Care:

> *"Oh, yes. Oh, yes. Yes. And I, when I lived in Joburg, I was in a townhouse complex. And I heard about the chiropractor from lady in the complex. And by the time I left the complex, every other house was going to see him. I forgotten his name now. I wish I could remember."* (Participant 11)

A participant recognised that they informed their decision to seek Chiropractic Care from the opinions of others sharing:

> *"My understanding of it, Yes, but also my ah liaising and speaking to other people that have had it, and how effective it has be on them. Ja."* (Participant 2)
>
> *"Their experience, Yeah, my mom's experience, although she didn't have it. Ah, But because of her ah her work background." (*Participant 2)

4.3.2.2 Limitations in Mainstream Medical Options

Several participants expressed a mutual frustration with the mainstream medical system for its failure to provide them with adequate healthcare. Some participants shared that their incentive to pursue an alternative care option, with Chiropractic Care, was to satisfy a necessary void they experienced in the healthcare space.

Frustration permeated this participant's description of their poor experience navigating the mainstream medical system:

> *"But this time was different. I had like a spasm, and it was excruciating pain, and I couldn't move. And I went to the hospital; they took x-rays, said we can't help you, comes with age. They sent me to another hospital, we were gonna do a CT scan; they put me in overnight, the following day, but let me go because the CT scan machine*

was broken. Then they gave me an appointment in two months' time, and I said I can't wait that long. I'm in too much pain; I need to fix it." (Participant 4)

The participant shared further about their justification for their alternative actions, insinuating further that there was a lack of compassion felt by mainstream healthcare practitioners:

"Yes, because I couldn't move. I was stuck. I was in terrible pain. Painkillers wasn't helping me. And I thought I needed I need something. and I thought, okay, if a chiropractor can find the problem better than a doctor, because they look at the x-ray, and they, oh, okay? You older; it happens with age. Deal with it? That's a difference." (Participant 4)

When describing their initial influences for receiving Chiropractic Care, a participant shared:

"Yeah, I've had it in the past many, many years ago, and it's successful, after visits to a few doctors, which didn't help, and a chiropractor helped. I've got full confidence in Chiropractic treatment, Ja." (Participant 6)

A participant described their frustration surrounding the dismissal of their pain by medical doctors:

"Ah, Yes. She could have sent me into someone. And she said just, it's just old age and rheumatism. Yeah, and that wasn't impressed." (Participant 8)

Another participant shared her frustration surrounding the lack of care options provided by medical doctors:

"I've been to doctors for, many times to all the doctors, uh, and they and I was referred by people- can't help me [Inaudible]. This is what happened to me. So they told me, no, the chiropractors is the only one that is going to help me to relieve my pain." (Participant 9)

The participant continued with sharing:

"I *actually chose because likewise, I said that, um, I've been to doctors and been to specialists. And nobody could help me. And I did, that's this referred with Chiropractic- only one is going to make me feel you will get your relief and you will get your pain out*

*of you. That's why I came back into came here. And that's a relief for me too." [laughs] (*Participant 9)

One participant, however, did describe her referral through mainstream medical channels to find Chiropractic Care:

"No, basically, I didn't see any chiropractors. But when I when I was told by the doctor, I need to see a chiropractor. That's when I said, let me get it done. Because in 2016, I was suffering from there on." (Participant 10)

Participants spoke to their desire to have started Chiropractic Care earlier in life:

"No, I saw the article in the Berea mail. Okay. And then I though uh. Should I or shouldn't I? Then I spoke to a friend. She said try it. You know, and I should have come earlier." (Participant 8)

"Well, I knew there were clinics. You know to do after the your studies. But I thought do I or don't I kept on putting it off. Anyway. I took the plunge and I should have done it before." (Participant 8)

"That thing I did my, da- I did my best And they did their best. I ah- maybe I should have come in earlier? The earlier years. You know what I mean? That maybe you would have?" (Participant 10)

4.2.3 Theme 3: Impact of Care on the Elderly Experience

While discussing their experiences of Chiropractic Care, several participants communicated the meaningful impact that the compassion shown by practitioners had on their experiences. The three key aspects where participants perceived this additional attention to care was through thoughtful practitioner-patient communication, the inclusion of the patient in the management plan for their care and the cautious approach taken when applying care to this fragile population. Some shared that this focus on communication was comforting. Several participants, while reflecting on conversations with their practitioner, expressed their appreciation for the inclusion they experienced in their Chiropractic Care. Other participants shared that the caution and consideration of their age they felt from practitioners during their care provided them with a sense of security.

4.3.3.1 Chiropractor's Care with Communication

An aspect commonly mentioned by participants was the care they experienced through their practitioner's communication skills.

One participant drew attention to their practitioner's continued communication throughout the course of their care, stating:

> *"I found her very good; it's like I said, she explains things. She tells you what she wants you to do when you're not here, and what not to do and what she's about to do. So, when you have information coming your way, it's much easier to accept what's going to happen."* (Participant 4)

When complimenting her Chiropractic practitioner's communication, this participant said:

> *"Yeah, I think *name removed* is very patient, ah, especially with the elderly, and very considerate, and I think she also, she knows what she's doing."* (Participant 2)

Participant 8 acknowledged her practitioner's communication skills as well as her mild temperament while discussing her experience with Chiropractic Care*:*

> *"Her gentleness and how she explained to me and ah I know I went ah, I knew when I got home there was - I felt much better."*

Another participant reflected on the reassurance their practitioner provided through their communications sharing:

> *"Getting told not to worry if you hear a creek, or if you tell me, you've got a pain, you can't stand it anymore, then don't go that far. Tell me not to or umm you're made aware of what and what they're doing and why for that particular part of your body."* (Participant 11)

Additionally, this participant praised the peace of mind their patient education provided them stating:

> *"… that I was more aware of my body. And if I did get a creek or a crack or an ache or whatever, I understood, it can be fixed. And umm, it's right to do that, because it does get better."* (Participant 11)

A participant expanded on their practitioner-patient communication revealing the assurances these explanations of their care can provide:

> *"The chiropractors well, well, well eish, not (laughs) with a payment when he knows, in fact, he knows his work. And uh, (inaudible) what he saw, I mean, it's speech to the patient. And he talk that's how he does his treatment. And it's well because we are happy with his treatment. And we happy the way he treats us, with the way he cares for us."* (Participant 9)

4.3.3.2 Effects of Patient Inclusion in Care on the Humanisation Framework

Another point surrounding the impacts of care that were raised by some participants was an appreciation for the inclusion of the patient in the Chiropractic Care process.

This participant shared the positive experience of working within their pain threshold while receiving dry-needling during their Chiropractic treatment:

> *"Um, but she helped me ah, ah, ah to feel more comfortable and to be tolerant of, of even, even when there was pain. Ah, she considered that, that she stopped the winging what you call it."* (Participant 2)

Describing the type of communication she found helpful during her care further by stating:

> *"Fanning it, Yes. Ja. and then she stopped for a little while and then she started fanning. Ja. Ja, so that helped me. Ja."* (Participant 2)

A participant shared their admiration for the collaborative nature of Chiropractic Care, stating:

> *"I found her very good; it's like I said, she explains things. She tells you what she wants you to do, when you're not here, and what not to do and what she's about to do. So, when you have information coming your way, it's much easier to accept what's going to happen."* (Participant 4)

This participant discussed how the practitioner's inclusion of him in his care impacted him, stating:

> *"No, because chiropractor asks you, should too. If he or she can do that and this and umm sometimes it is sore but then that's the time for the chiropractor to stop what he or she is doing and do something else or explain that he can do it or she can do it more*

gently and build it up. Umm, so you feel a bit as if you're working with him or her." (Participant 11)

A total of six participants shared an appreciation for the cautious approach they experienced with Chiropractic Care, sharing how the consideration of their age and its resultant fragility increased the level of trust in their practitioner while they were performing their care.

A participant shared their confidence in their practitioner's ability to provide them care, stating:

*"Yeah, I think *name removed* is very patient, ah, especially with the elderly, and very considerate. and I think she also, she knows what she's doing*." (Participant 2)

Another participant complimented the soft approach she experienced with her Chiropractic Care practitioner:

"Her gentleness and how she explained to me and ah I know I went ah, I knew when I got home there was- I felt much better." (Participant 8)

A participant commented on the Chiropractic approach further by sharing:

"The way you work. And yeah, it just very good. Very gentle. I don't feel anything with injection- with the needle Excuse me (cough)." (Participant 8)

A participant spoke of the trust he felt about the caution Chiropractic Care provides:

"I think you know what you're doing as a chiropractor. And it's not for me to say, tell you what to do, I think you know, because I found that they are very scared. They know every part of your body. A chiropractor knows every part every twist every turn." (Participant 6)

A participant talked about how all-encompassing he felt his chiropractor's knowledge was of their field:

"*Positive 100%? Yeah. It's amazing. You know how he knows every little tissue in your body and every muscle? It's amazing."* (Participant 6)

Speaking further about their confidence in the thoroughness of the Chiropractic Care they received:

> *"No, like I said, they, they work as professionals, yeah. And they're not shirking in their duty, even as an older person is not shirking, they give you the full attention and checkout. every details so…."* (Participant 6)

This idea of care is continued in this participant's discussion of the care they experienced:

> *"Absolutely I think I think you people take a lot of care. You are careful with what you do."* (Participant 7)

A participant shared their appreciation for the time allocated to them, making them feel less rushed:

> *"Because I know the place so well now and know the people here like the chiros because of the chiropractor, it gives you so much. And he goes out of his way obviously is obviously learning, and it's good for his experience. But he's not like- No, he gives you exactly what you want. Like you know, some people will short circuit certain things and shortcuts and time constraints and all, but he always makes you comfortable that you will only when you finish you've got to leaving him, you're- he's not going to ah send you away before everything is done."* (Participant 10)

Another participant, when speaking on his experiences of Chiropractic Care, recalled how it helped strengthen him:

> *"Oh, it's difficult to say I mean it's like a miracle. When it- When it helps. umm Okay, sometimes it's worse than others the pain and then umm my with my surgery that I've had on my neck umm I know that I can. I can go to the chiro and it will be reduced and till it's gone. And ah it's not harming my body at all. It's strengthening it. umm. And chiro can find an area that I wasn't complaining about because he or she is treating it the one thing And another part sort of shows a little bit that it wants treatment too. So it's sort of investigative."* (Participant 11)

4.3.4 Theme 4: Insights Observed Through a Lifetime of Experiences

Individuals in the elderly population provided a unique perspective due to their extended lifetime experiences as discussed in the results, as their lived experience encapsulates the majority of the profession's legitimacy in South Africa. The interviewees revealed a shift in the treatment styles used in Chiropractic Care, as well as the diversification of tools utilised. Some participants contrasted their early experiences of Chiropractic Care with their more recent experiences of Chiropractic Care.

4.3.4.1 Diversification of Chiropractic Therapies Utilised

When probed on the ways in which they felt Chiropractic Care had changed, these participants discussed the new Chiropractic modalities they had experienced.

A participant spoke to the increased focus on the myofascial component that they experienced in recent Chiropractic Care:

> *"Umm, Ja, I think- I think that you know, there's- there's- there's a whole lot of new treatments that the guys- that the Chiropractic- umm fraternity have brought out. There's things like dry needling and umm-um- which deals basically with, as far as I- you know, as far as I'm aware, with muscular issues as opposed to bone issues. umm, and ja, I think -I -I -I think that -that -that may -maybe work for someone who's not ageing, and you know, who needs a -a basically a Chiropractic Adjustment. Yeah."* (Participant 1)

> *"Ja, um, I think- I think that- I think the dry needling. Well, it- it's definitely something new, so is the- well- I think the massage that -the kind of- I don't know what they use to describe it. It's called hot ice- I don't know what the terminology is of the actual, the- the kind of deep heat, I suppose. Um, ja, so that- that's part and parcel of the actual, you know, adjustment. As far as I'm concerned, you know- the- the- massage is to basically loosen up the muscles so that they can do the adjustment. so, ja, and then the dry needling on top, ja."* (Participant 1)

Sharing further about the inclusion of dry needling into Chiropractic Care:

> *"No, and I- I- think the one thing which has come out of chiroprac- which has come out of the Chiropractic treatment is the ah kind of recent umm if it is a recent evolution of the dry needling, which is something- which is I- I- think what is certainly new, to uh my chiropractor."* (Participant 1)

Another participant described an unconventional experience of dry needling during its early introduction into South Africa:

> *"Ummm, I, I may be wrong. It was backache lower backache, which is - has been bugging me for years (cough). And I think at one-time acupuncture was not allowed in this country. Or not recognized… And the guy actually did it at home. He was a doctor, but he did the chiropractor, acupuncture at home. And that actually helped the problem the time, so I've got what should I say? Confidence."* (Participant 6)

In addition to mentioning dry needling, a participant shared their experiences with the new electrical modalities available:

> *"I umm, I accept that it's improved overall my, my years. There's more gadgets that we didn't have before it was always just a massage and, a press here and a press on the nerve ah there and rubbing a massage in that, but now it's needling and in all the other things, machines and the beds and the stretches and whatever there's so much more."* (Participant 11)

Participant 7 expanded on the topic of new modalities by sharing:

> *"Yes, it has changed. And funnily enough, I just mentioned this to *name removed. At that stage, they would give you a massage and then manipulate, and now you're going more into the other things, the ultrasound and the pads and all those sorts of things. So there's a lot more of that rather than cold manipulating when the muscles are still in spasm."* (Participant 7)

Conversely, this participant shared that based on their more limited time reference, they experienced minimal change:

> *"No, very much the same. Yeah, I think it's about four years, maybe about four years ago, when we moved up to that area that I went yes. When asked to compare"* (Participant 5)

4.2.3.1 Shift in Management Style

Only four participants discussed their experiences with Chiropractic Care in their youth. These individuals discussed how they could identify a shift in the approach to Chiropractic Care and its impact on them.

Participant 7 identified that their first experience of Chiropractic Care was:

> *"…probably from already from my 20s and was like 50 years ago."* (Participant 7)

The participant touched on the growth they experienced in the Chiropractic profession, stating:

> *"Yeah, as I said, from what I understood, years ago, before they, they started doing it here, people would go overseas to study, and I believe that only studied for two or three years. Now you doing six years. I mean, it's that that's the difference. You're obviously learning a lot more and understanding a lot more. Whereas before, the idea was, as I said, a little massage for five or 10 minutes and (laugh) then the manipulation."* (Participant 7)

They also addressed the reputation of Chiropractic Care and how it has evolved:

> *"You know, there was the connotation many years ago, but not anymore, I don't think."* (Participant 7)

When asked to elaborate further on the ways in which they experienced this change, they shared:

> *"Yes, definitely. Yes. I've always- look Chiropractics has always helped me, but umm definitely, I think now there's a lot more of the working on the soft tissue rather than getting in and having a good old crack."* (Participant 7)

They expanded their current perceptions of Chiropractic Care by sharing:

> *"Oh, definitely safer. Yeah. And I think that the whole concept here, is that a better understanding of Chiropractics now, whereas before it was, so I've been going from that time when it was the good old get the crack in first you know."* (Participant 7)

When speaking on the treatment style they experienced historically, the participant shared:

> *"So, I think that might have done a little bit of damage to the older people, whereas now umm, doing all of this other soft tissue work first, before forcing a manipulation, especially for older people."* (Participant 7)

The participant further elaborated on the treatment style shift:

> *"Um, Yes, as I say umm, there is more umm care taken about soft tissue. Whereas before, it was a little bit of massage and then manipulations where it's not you take a lot more time on the soft tissue work before manipulating."* (Participant 7)

When questioned on their first Chiropractic experience, Participant 6 shared:

> *"Oh, it was donkey's years ago."*

They continued by clarifying and contrasting their initial experience of Chiropractic Care to what they have experienced now, stating:

> *"It was 40 years ago. (laughs) Well, I think it's more intense now."* (Participant 6)

When asked to elaborate on in what way they found Chiropractic Care more intense now, they shared:

> *"No, because (cough) it's more longer, the sessions are longer and more intense. And at that, that time further on clearly, it was a bit shorter."* (Participant 6)

The participant went on to share their appreciation for the thoroughness they have seen in recent experiences:

> *"And uh, even when you go to the first chiro session, it's a complete checkup, like every tissue in the body, it's pretty nice."* (Participant 6)

This participant also commented on the previous limitations put on the techniques chiropractors were allowed to perform:

> *"Ummm, I, I may be wrong. It was backache lower backache, which is- has been bugging me for years. (cough) And I think at one-time acupuncture was not allowed in this country. Or not recognised."* (Participant 6)

When asked about their first experience of Chiropractic Care, Participant 8 shared, "Before. I was just trying to think if it was 30 years ago, if it was 50 years ago, probably. There was a long time." Elaborating further on her experiences with her initial practitioner:

> *"No. You know, ah, this guy came from America, and he was recommended. But I didn't like that. Pulling the owns and clicking and the legs. That didn't, that didn't appeal to me."* (Participant 8)

When commenting on the treatments she experienced in her youth, this participant said:

> *"So they, ja, the only thing I didn't like was the manipulation of the bones*." (Participant 8)

> *"Yeah. Yeah, I felt was very aggressive. You know, but I did have it for a long time. And you know, either way, but as I say, that was 30 years ago. Yeah*." (Participant 8)

However, the participant commented on the gentle nature of her more recent experience with Chiropractic Care:

> *"Oh yes. This is very gentle."* (Participant 8)

Expanding on those recent experiences by saying:

> *"Well, now, I'm not, you know- very impressed now. Definitely not negative."* (Participant 8)

The participant also commented on their current feelings for Chiropractic by sharing:

> *"Yeah, well, I don't know, I feel safe with chiropractor. No, very impressed what I've had here just for the two days, and that's it, nothing else I can think of."* (Participant 8)

Participant 4 identified the first Chiropractic interaction they encountered:

> *"Uhh, it was about 40".* (Participant 4)

When asked to describe this interaction, the participant shared:

> *"Absolutely. Then you go into the room, you pay your money, and they give you a couple of cracks here and there. I thought they were breaking bones, But the, it's uh, obviously air bubbles that's in-between. I've learned to read up on stuff when I'm interested in doing something."* (Participant 4)

They expanded upon this early experience of Chiropractic Care further when sharing:

> *"There was nothing explained it was just you, you stood up straight, they made you walk. They looked at you, okay, you've got a bit of a hip displacement or something's not quite right. and you, we will fix that. Just lie here. And then they'd just do the thing. It's like 123, and it's done, over."* (Participant 4)

The participant contrasted that initial experience to her current experience by sharing:

> *"And now it's a different thing. Now they've taken care of the patient's pain before they just put bones into place. That's a difference. And this was a quick thing. It was in and*

out. It wasn't; there's no slow manipulation and taking care of where it really hurts." (Participant 4)

Theme 5: The Impact of Age on the Elderly Experience

When discussing the impacts Chiropractic Care had on them, all of the participants noted their improved quality of life following their care. Some participants commented on this progress in general, while other participants identified that pain relief and increased mobility had the greatest impacts on them. Overall, the elderly participants agreed that Chiropractic Care attributed to improving the aspects of their quality of life (Bong *et al.* 2021) When probed about the ways in which they felt their age affected them, several participants suggested that age had little impact on the care they received from chiropractors. However, a few participants did address the impact age played on their rate of healing.

4.3.5.1 Improved Quality of Life Through Chiropractic Care

Participants throughout the study population made general commentary on the improved overall status they experienced as a result of Chiropractic Care:

> *"Very definitely, I- I feel better after I've had it- after I've had an adjustment."* (Participant 1)
>
> *"Right ah, it makes you more comfortable; it eases the pain. and ah, it's something that ja- it, it ah, to me it avoids having like an operation or surgery or something like that. Ja. So that's what I understand about it."* (Participant 2)
>
> *"No, negative feelings. I'm very happy with what has been done so far. and I'm hoping that in the future it's going to just increase and get better."* (Participant 4)
>
> *"Ah, they help me. They definitely, definitely helped me with my problem that I've got, especially with now with my shoulders and things like that. It-It definitely helps. Definitely an improvement after each treatment I can feel the difference. Ja."* (Participant 5)
>
> *"Better life. Less, less pain, take away the pain most important, I think. To a certain extent."* (Participant 6)
>
> "*Definitely improving. Definitely improving. Ja. There is an improvement."* (Participant 7)

"It can help. It helps. Well, I feel better this last. You know I've only had today was more- second one." (Participant 8)

"In fact, I don't. I don't know how to explain it to you. But, um, compared to what I was and what I am now, ha. I'm much, I feel much younger, like after my treatment, and I'm very happy that I'm feeling much better." (Participant 9)

"And I feel much better." (Participant 10)

"Yes, and it got better. You sort of are able to manage, manage better yourself and understand and don't let it get to bad." (Participant 11)

Additionally, participants commented on how Chiropractic Care alleviated their pain and discussed the impacts this had on health and, in turn, quality of life:

"Umm, they got immediate relief, umm, like I did. So, you go in there with a migraine or with a tight back or neck and uh you out and it's- the relief is immediate." (Participant 1)

"Oh okay, what I understand is that ah the treatments, the treatment helps with the relief of pain." (Participant 2)

"Uhh, Yes, no, uh, I've got a thorough workout there. Uh, and the immediate effect after was it was pretty sore. You know, and um, but then it's sort of the pain reduces." (Participant 3)

"And now it's a different thing. Now they've taken care of the patient's pain before they just put bones into place. That's a difference. And this was a quick thing. It was in and out. It wasn't there's no slow manipulation and taking care of where it really hurts." (Participant 4)

"Umm, I knew, I just knew that if you had a bone problem or you know terrible body pains and things like that with your structure, that they could relieve- help relieve it." (Participant 5)

"On my pains, it works. You get relief "(Participant 6)

"I definitely feel like it's always helped. That's why I've always come back." (Participant 7)

"Practically is basically trying is that the treatment actually reduces pain, keeps your spine loose, and you know, so forth. And so that the damage that already been caused does not deteriorate. Present at that present time and for the future." (Participant 10)

Another two of these participants revealed further that Chiropractic Care provided pain relief they had not been able to acquire elsewhere:

> *"I felt good, because, after a few treatments, it was the first time in my life, you know, that backache was completely gone."* (Participant 6)

> *"I actually chose because likewise, I said that, um, I've been to doctors and been to specialists. And nobody could help me. And I did, that's this referred with chiro-practices, only one is going to make me feel you will get your relief and you will get your pain out of you. That's why I came back into came here. And that's a relief for me to."* (laughs) (Participant 9)

Furthermore, when pain is relieved through Chiropractic Care, it can have not only physical health benefits but also psychological and emotional health benefits:

> *"Well, I certainly expect to be to be healed. I do expect to be healed. Otherwise, I wouldn't be here. I wouldn't be coming. So yes. And, and there's always been results; the results have always been good. I've always been very happy. That's why I keep coming back."* (Participant 7)

> *"Yeah. And it seems to help the first day, you know, it really. And I wasn't in pain. So I was quite happy. So I'm looking forward to the next one."* (Participant 8)

> *"Actually chiro-practices that we, we have got like for instances I have got lots of back pain and they come to them for my treatment and and then I'm quite happy and get relief with the pain."* (Participant 9)

One participant also discussed how chiropractor's provided them with tools to aid in the self-management of their pain and, therefore, creating autonomy:

> *"And also, exercises that were given to me to do and what not to do. Umm, and things I could do for myself, like having a hot pillow, or it was heat that helped, not cold. So, I feel- I- it was helpful. I didn't feel helpless with you know if I had pain, I thought, I'll do this and do this. If it doesn't get better. Then I'll phone my chiropractor."* (Participant 11)

> *"Yes, and it got better. You sort of are able to manage, manage better yourself and understand and don't let it get too bad."* (Participant 11)

Participant 2 spoke to the need for receiving Chiropractic interventions with regularity in chronic pain care:

> *"No, I didn't- I- I wasn't. In fact, I wasn't sure whether it was a one-off thing. Or I had to come in uh for further sessions. Uh But now I have spoken to uh *name removed*, because the last time I came was in June, and she said I must coming in now. I must come in more regularly. If I come in at least about once a month, then I won't have so much pain."* (Participant 2)

Several participants also commented on the improved mobility they achieved through Chiropractic Care sharing:

> *"That uh if you're, if you're, if you mechanically aligned so in other words, your -your spine and your -and your umm umm and -and your, your bones and -and your muscles are mechanically aligned, it obviously frees up the rest of your, your body to move. Yeah".* (Participant 1)

> *"No I, because in fact, I've been to doctors have to take medication And I did at home you know massaging. And we do things like that I didn't find anything. But when it came to chiropractors, and uh, I feel I feel I feel really good because if I have to carry on doing it another four or five session that I feel, I'll be back to my younger age, I'll be back what 67 or maybe in the 40's too. (Laughter) I'll be moving fast because I'm the person that doesn't like to sit, I like to do something, I like to walk, I like to do things, it will be active, but because of the pain, and I'm not active at all."* (Participant 9)

> *"And then today, she did the ultrasound or some- yes for the first time. It's the second time I've had the shock treatment and it, it works- it felt better afterwards. I mean, even even now I can move my arm. Whereas before to do that was a problem and know i- it feels more relaxed."* (Participant 5)

> *"But this now, um, I have degenerative spine and being of age, a little bit of arthritis, and stiffness in my lower part of my body. And I know the only way you can get rid of it, is by being manipulated, dry needling, no little bit of it. I'm not a fundi on it, but uh, that's why I'm here."* (Participant 4)

> *"I was hoping dry needling will sort it out, because I'm very stiff in certain points, and it has alleviated some of it, it's not gone. I mean, it's only one treatment and um, to put my back back in place, when it's out will take time. I'm very very stiff. That area's like, all bunched up. It's gonna take time to come, right. But I feel today, when now that I'm sitting before I couldn't sit. I'm sitting today, and that's a big difference. You know,*

normally I feel that pressure the minute I sit. It's like hitting me like a brick in my back. So definitely something happened today. That's err (laughs)." (Participant 4)

"Not really, I when I had the first few treatments, I said, You know what? I thought to myself that you know, to maintain what I got, rather do it because I'd rather just continue and when I went into 5th, 6th, 7th 8th treatment I felt, you know, I need to continue. And even if I can't come twice a month I need to continue doing this." (Participant 10)

Participant 3 discussed how their ability to participate in such social activities was negatively affected by 'wear and tear' created through activities performed in their youth and how the need for continued Chiropractic Care is required:

"Ah (laughs) Not really look, you know, I've, uh, I don't think so, I'm fine. And normally I'm fit. I've done a lot of, you know, so um, I'm lucky to, well, walk comrades, I ran the comrades, I walked the other one. And I've got all the wear & tear I've accumulated over the years. You're not going to solve it one minute." (Participant 3)

Multiple participants spoke of Chiropractic Care, restoring their functional ability and consequently re-establishing their social participation:

"No I, because in fact, I've been to doctors have to take medication And I did at home you know massaging. And we do things like that I didn't find anything. But when it came to chiropractors, and uh, I feel I feel I feel really good because if I have to carry on doing it another four or five session that I feel, I'll be back to my younger age, I'll be back What 67 Or maybe in the 40s too. (Laughter) Ill be moving fast because I'm the person that doesn't like to sit, I like to do something, I like to walk, I like to do things, it will be active, but because of the pain, and I'm not active at all." (Participant 9)

Disability was observed to negatively affect the elderly, as their ability to participate was hindered by not being able to sit, walk or perform activities of daily living; however, Chiropractic Care was able to counteract these disabilities and therefore improve their quality of life:

"And I think most people, they don't really go through with this, you know, they do it. And then leave it, and then, and then it gets bad again, in a month or two, they start again, they don't really have any inkling that you know, that you will need the consistency, you need to do it for a while, you know, if you have a problem, you need

to do it, I would say for six to eight sessions, and then when you're cured, doesn't mean you must leave it because when you- it will, obviously the problem can come back. So it's good to now and then go to a chiro just to have whatever you have that thing have a bit of been treatment. Yeah, I mean, like maintenance, basically". (Participant 10)

"Oh I, no, no, I have no negativities because I know it's helping me. And you know if I didn't come here and didn't have the guts to come here. I don't- I definitely wouldn't be suffering more than than what I was when I had the problem. you know. So I know there's improvement. And I'm an athlete, I used to jog you so. So jogging. Is, is is good for me." (Participant 10)

Participant 4 shared how Chiropractic Care improved their quality of life by restoring their ability to sit.

"Absolutely. Also, now, this is a different pain. I've been a very active person all my life, and to suddenly just gets stuck. And in being in severe pain that I couldn't cope with. This was a different thing. I had to like, adjust my mind. It is just by thinking, now that I'm not a youngster anymore. and I have to stop." (Participant 4)

"It's gonna take time to come, right- but I feel today when - now that I'm sitting before I couldn't sit. I'm sitting today, and that's a big difference. You know, normally, I feel that pressure the minute I sit. It's like hitting me like a brick in my back. So definitely something happened today." (Participant 4)

Participant 5 shared their intent to continue utilising Chiropractic Care; this ensured healthcare continuity increasing their quality of life through continued participation:

"I uh, god. I definitely will if I need it. I will definitely still carry on with it. With treatment, you know, I'm not afraid to do it. Because it definitely does work. It definitely does work, especially on this old body (laugh). Ja no fine." (Participant 5)

"Ah, they help me. They definitely, definitely helped me with my problem that I've got, especially with now with my shoulders and things like that. It-It definitely helps. Definitely an improvement after each treatment I can feel the difference. Ja." (Participant 5)

"And then today, she did the ultrasound or some- yes, for the first time. It's the second time I've had the shock treatment and it, it works- it felt better afterwards. I mean, even,

even now I can move my arm. Whereas before to do that was a problem and know I- it feels more relaxed." (Participant 5)

The participants also discussed the financial alleviation the DUT CDC's prices provided:

"uh, he had a knee, uh, problem, and uh, he he he said to the one I also, you know, come and see you guys. And so, I thought it was a good idea. And the price was right (laughs). And um, yeah, but so, I've got another, They've taken the X-rays, and now, uh, be uh, read them to me next Tuesday, like you." (Participant 3)

"I used to take an injection, it wasn't so bad, but from 2016 it got bad. And then, at the end of 2017, I did a upper spine X-ray and found out that I got a slip disc, actually, at three and four, is slipped and there's others also closing up, you know, as with age, and ah that's when I decided to come go to a chiropractor, I went to a private person, and it was only getting half an hour for a lot of money. So I decided to come here because I was going to be a pensioner as soon. And I said, and I enjoy coming here [DUT CDC]" (Participant 10)

4.2.3.1 Age Inclusion Experienced in Chiropractic Care

The majority of the participants indicated they felt age had little impact on the Chiropractic Care they received:

"Umm, I- I- don't really think that age has got much- it's got anything nothing to do with it I. Although I'm 63 I don't- I don't feel that way. And I don't. I- I- I go to the chiropractor every- once every two or three weeks. Umm, and I- I- don't think that my age or the- sort of the- I don't think my bones are brittle because I'm old." (Participant 1)

"No, I don't think so because I'm a pretty fit person. So if you if he tells me right touch your toes, I can do that. So I have maintained myself. With Jogging and sport. So people don't believe that I'm 64 because I run across the road and things like that. And I jog and stuff like that. Yeah, quite active." (Participant 10)

Some participants discussed that although care is individualised to their needs, they still received the best care available despite their age:

"No, look I think, they've done, you know, as per program sort of thing, and, that's what I would have expected anyway, you know. and my little knowledge about it. But uh,

she was very good, and I think um, Yeah, it wouldn't uh, be any different from maybe slightly from a younger person, and an older guy, you know?" (Participant 3)

"I don't think it has anything to do with age…Not at all. I think everybody gets treated according to their problem." (Participant 4)

"I think it's just a matter of understanding where the problem is, and fixing the problem. Everybody is different. My pain is not going to be the same as your pain. So yeah, everybody is going to have a different treatment." (Participant 4)

"Ah no, I actually never thought of that. I just- I felt that- when I came, I felt quite comfortable after my first treatment and I did feel the improvement." (Participant 5)

"I don't think so. I don't know how the younger individual is treated." (Participant 8)

Another participant commented on the attention to detail provided by their Chiropractic healthcare practitioner:

"No, like I said, they, they work as professionals, yeah. And they're not shirking in their duty; even as an older person is not shirking, they give you the full attention and checkout. every details so..." (Participant 6)

These participant suggested the benefits of Chiropractic Care held no age limitations:

"No. But you know, I'm already 60/61. And I'm benefiting." (Participant 6)

"No, I still definitely I wouldn't stop coming. No matter how old I get, I will be coming." (Participant 7)

This participant discussed their potential need for more treatments because of their age, but felt age played little impact on the quality of care received:

"I don't know because that I won't know because of my age and that age. But somebody younger maybe the issue with they, they got that younger blood and we've got all of you don't have that energy, they got more energy than us. They energenic and a little bit treatment, they fine with it. Like with us now. We are quite old; we need a lot of treatment." (Participant 9)

Some participants, however, did acknowledge the impact that their age plays on their healing:

> *"I just know that with my experience all the years that I've been having treatments that are did heal quicker when I was younger, but now that I am getting older, it does take longer, and I know with everything, even if you cut yourself or you have a wound it all takes longer to heal."* (Participant 7)

> *"Uh, I did- I did expect because I'm older and I've uh I've -'ve got comorbidities. Right, I expected it to take a little longer to actually feel any relief. But that wasn't so."* (Participant 2)

> *"No, I didn't. I was in a painful situation. I didn't expect it to go away in one day. I'm older and wiser and know things take time."* (Participant 4)

> *"No I think um, everybody else might be different aspects, but I think it would probably be along the same lines, you know, maybe a bit more intensive with a younger person or me, but I'm not sure."* (Participant 3)

4.3.6 Theme 6: The Draw of an Alternative Healthcare Approach

A common experience of several participants was the attraction to an alternative approach away from the mainstream medical system. The majority of participants attributed this to their distaste for the excessive use of pharmaceuticals in their care. Some participants referenced this medication as camouflaging the real issue; others shared that pills were not as effective as the care they received with chiropractors. Additionally, participants shared their hopes to prevent regression in their health through Chiropractic Care.

4.3.6.1 Desire for a Non-Pharmacological Solution and Long-Term Relief

Several participants demonstrated their aversion for masking pain with a pharmaceutical option. A collection of participants suggested that the medication they were offered by medical doctors only acted as a mask for their pain. Quotes that share this sentiment include:

> *"Yes, because I couldn't move. I was stuck. I was in terrible pain. Painkillers wasn't helping me. And I thought I needed I need something. and I thought, okay, if a chiropractor can find the problem better than a doctor, because they look at the x-ray, and they oh, okay? You older; it happens with age. Deal with it? That's a difference."* (Participant 4)

> *"Uhh, yes, no, uh, I've got a thorough work out there. Uh, and the immediate effect after was it was pretty sore. You know, and um, but then it's sort of the pain reduces, the next hour was fine. And um, you know, I don't like taking a substance, any*

medicines, you know, that are gonna sort of camouflage the pain. You know, because I feel that if you, you know, you might not feel the pain but it still be damaging the bones and that you know. So um, anyway, we just waited to see now, with the x-ray, what were the problem is if it's serious or not." (Participant 3)

Other participants suggested that these pain medications did not achieve the same outcomes they found with Chiropractic Care:

"You know, very recently, it was an issue where I went to the doctor; it was, here, it was in the hip internally. And they gave me painkillers and antibiotics, which didn't help. -Anti-inflammatories, sorry, condition, anti-inflammatories which didn't help at all. Yeah. And then I spoke to a chiro here I'd been for some other treatment. And I mentioned to him, and he went into it, and the Chiropractic treatment helped…So, you know, that you've got to recognise that- recognized treatment, which has benefits, it actually works." (Participant 6)

"Well, at the moment, I don't know, because I, in fact, I refer to people when I came here, I refer to quite a few people to say that you in so much of pain the medication, what we taking is not right, we have to go to the chiropractor see, maybe that's a better option." (Participant 9)

When commenting on Chiropractic Care, one participant shared:

"Well, ah, I'm, I definitely feel that this is far superior to swallowing down anti-inflammatories and pain pills all the time because I think they damage your organs. So I'm definitely pro (laugh) all of this." (Participant 7)

Commenting further on their appreciation for the holism they experienced in Chiropractic Care:

"Umm, well, its, it's a holistic form of, of treating. Umm, a body that's, that's out of alignment. umm, bones, muscles, ligaments and tendons. I'm more pro this than taking pills, I don't take pills." (Participant 7)

Another participant shared their distaste for the side effects associated with taking medication, stating:

"You know I'd like to see whoever I meet; in fact, I meet wherever I need to tell the people you know the chiropractors are the only ones. If they complaint in so much a

pains and aches, I say, no, the chiropractors may help you'll try them because the medication is not good. It's not good for kidney not good for your body, and the doctors will carry on giving injections which may be for two days, three days, but the chiropractors at least we get quite long drawn, like long this thing that we, we feel the relief, but the pain is relief, and we feel better." (Participant 9)

4.3.6.2 Fear of Degeneration and Surgery Avoidance

Some participants revealed that they had an underlying desire to seek out alternative options from somewhere other than the mainstream medical system.

One participant shared her experiences with Chiropractic Care stating:

"Right ah, it makes you more comfortable, it eases the pain. And it's something that ja- it, it ah, to me it avoids having like an operation or surgery or something like that. Ja. So that's what I understand about it." (Participant 2)

Another participant spoke about the maintenance they felt Chiropractic Care could provide:

"I can just maintain it. And that's all I can do. Because I don't want to have an operation, and all those things are pretty what you call risky and can get worse, can get worse in your age-old age. And it's not good at all." (Participant 10)

A participant shared their aversion to a surgical option sharing:

"It's the, it's the positive feelings, positive outcome that you know, I don't- The other option is to have an operation ah, which is, which is risky, which can and if you have it at a certain age, it might not be the, because you know all your bones in your bodies." (Participant 10)

Another participant shared how in her experience that Chiropractic Care was the only method that provided relief:

"I used to be a window dresser. And we had models, and those models get stuck. And I found, like, every time I twisted the model, my back self like it flipped out. So I went to the chiropractor, and he fixed it up. So it was like now and then, not a big thing. But this now, um, I have degenerative spine and, being of age, a little bit of arthritis, and stiffness in my lower part of my body. And I know the only way you can get rid of it, is

by being manipulated, dry needling, no little bit of it. I'm not a fundie [expert] on it, but uh, that's why I'm here." (Participant 4)

The participant further shared how they discovered Chiropractic Care as an alternative treatment option:

"I wanted to go further and find out, you know, what is the cause and get it, at its early stages if there is something wrong, and uh, so that's where the friend of mine, Eric, told me to come here." (Participant 4)

4.4 CONCLUSION

In this chapter, the results of the study were presented. The data obtained from the study's data collection were organised into themes and corresponding subthemes, with excerpts from the interview transcripts to support these extracted themes. The upcoming chapter delves further into Chapter Four's findings by offering interpretation and discussions of the results.

CHAPTER FIVE

DISCUSSION

5.1. INTRODUCTION

This chapter comprises of a discussion of the results presented in the previous chapter. In addition, the discussion explores the responses of the elderly participants regarding their perceptions and experiences of Chiropractic Care. A contrast and comparison of the analogous literature will support this discussion.

5.2. OVERVIEW OF THE RESEARCH DISCUSSION

This study aimed to reflect on the perceptions and experiences of elderly patients towards Chiropractic Care to extrapolate how the elderly can improve Chiropractic education to improve the future experiences of Chiropractic Care by this population group. Through the analysis of the semi-structured interviews, these six themes were extracted and outlined in the previous chapter.

Theme 1: Understanding of Chiropractic Care.

Theme 2: Factors influencing the pursuit of care.

Theme 3: Impact of care on the elderly experience.

Theme 4: Insights observed through lifetime experience.

Theme 5: Impact of age on the elderly experience.

Theme 6: The draw of an alternative healthcare approach.

The above themes and their subthemes have been critically analysed to compare and contrast the information obtained in the results and then substantiated with the literature reviewed in Chapter Two.

5.3 DISCUSSION OF THEMES AND SUBTHEMES

5.3.1 Theme 1: Understanding of Chiropractic Care

Measuring the level of understanding held by elderly individuals surrounding Chiropractic Care and its capabilities is essential, as it provides insight into the reasons why Chiropractic utilisation by this population is so poor (de Luca *et al.* 2021). In analysing the elderly's experiences, insight is gained into how limited knowledge affects the perception of Chiropractic Care (Mulugeta, Ayana and Sintayehu 2018). Participants were asked various questions about their perception and understanding of their Chiropractic Care experience. Although participants' understanding levels of Chiropractic Care varied, a theme of limited understanding was carried throughout. In addition, the respondents highlighted a significant need for more patient education to be provided by Chiropractic practitioners.

Despite the elderly-specific education currently being provided at DUT, this limitation in elderly patient understanding is still prevalent. Presently, DUT education does an excellent job of preparing practitioners to provide patient-centred care, as discussed in the third theme; however, education on what Chiropractic is, how it helps, and the terminology surrounding its treatment requires improvement. Furthermore, educating the public and Chiropractic patients on the diagnostic capacity of Chiropractic Care should be prioritised. Considering the limited knowledge underlying what participants understand about Chiropractic Care, it should be no surprise that most participants had difficulty expressing what they understood Chiropractic Care to be. This study's results identify the need to address understanding limitations and misinformation through means of patient education to improve the accessibility of Chiropractic Care.

5.3.1.1 Limitations in Public Understanding of Chiropractic Care

Prior knowledge is known to influence perception development (De Lange, Heilbron and Kok 2018). When initial knowledge is limited, it negatively correlates with the utilisation rates of alternative care (Burke, Nahin and Stussman 2015). When asked to describe their perceptions of Chiropractic Care, several participants had difficulty expressing their understanding. This implies that there may be a reduced utilisation of Chiropractic Care in the South African population due to the limitation concerning the understanding of Chiropractic Care. This same lack of understanding may also have a causative effect of reduced utilisation and, even more extreme, avoidance due to anxiety.

Healthcare literacy and education levels are seen to have a negative correlating impact on anxiety, as those with limited understanding have a higher likelihood of anxiety (Mulugeta, Ayana and Sintayehu 2018). Participants' initial attitudes towards Chiropractic Care varied due to their limited knowledge, with some participants expressing fear, while others expressed sentiments of safety. This phenomenon is explained through the fear-avoidance model (Leeuw *et al.* 2007).

The gap currently seen in patients' understanding is of note, as it can lead to anxiety and further avoidance. The analysis of this study's results revealed two main reactions to a limitation in the elderly's knowledge, namely 'ignorance is bliss' or 'anxiety'. The fear-avoidance model explains how a patient's response to musculoskeletal pain can exist on the two extremes of either 'confrontation or avoidance' (Leeuw *et al.* 2007). This model details how pain can be misinterpreted as a threat, thus creating avoidance behaviour and, in response, pain-related fear. Safety-seeking responses should only be adopted in cases of acute pain as, paradoxically, in chronic pain, this aggravates the issue, resulting in long-term consequences of disability, disuse and heightened pain sensitivity in the future (Leeuw *et al.* 2007).

Another impact on limited understanding stems from the disjointed perceptions seen while participants discussed Chiropractic treatments; this disconnect projects misinformation. Some factors that impact the disbursement of misinformation include rumours, fictional works, politics, social media and vested interests (Lewandowsky *et al.* 2019).

This study predominantly observed misinformation when participants discussed the scope of care, in particular treatments and their associated anatomy. This misinformation surrounding the scope of care occurs due to limited public knowledge surrounding Chiropractic Care. However, the poor eloquence surrounding Chiropractic treatments and associated anatomy can be corrected at the student level with more focus on patient education. The results of this study identify the need to address misinformation to improve the accessibility of Chiropractic Care, as misinformation aggravates a lack of understanding, causing anxiety and, thus, public avoidance, as was shown in this study.

5.3.1.2 Challenges with Chiropractic Language Eloquence

An area where understanding was particularly limited in this study's results was surrounding the elderly's eloquence when communicating using Chiropractic terminology. The conceptual knowledge surrounding health care, such as understanding treatment options, is crucial to healthcare literacy (Burke, Nahin and Stussman 2015). The majority of participants in this study lacked eloquence when discussing their understanding of Chiropractic Adjustment, a tool that is fundamental in the Chiropractic profession's artillery (Hawk *et al.* 2017). There is a correlation between low levels of education, socioeconomic status, race, and functional health literacy affecting health care knowledge negatively.

The CDC is utilised by predominantly socioeconomically disadvantaged elderly individuals (Schirmer 2019). In America, these disparities, between poor education and low socioeconomic status, negatively impacted the utilisation of complementary medicine and, in turn, negatively affected the quality of care provided (Burke, Nahin and Stussman 2015). These disparities are exacerbated by communication inequalities and healthcare illiteracy (Burke, Nahin and Stussman 2015). Therefore, when Chiropractic education is taught, an emphasis must be placed on sufficiently educating those impacted by these negative disparities, such as the elderly population.

The elderly are the largest consumers of healthcare services globally; the primary reason these individuals seek medical care being to manage musculoskeletal conditions (de Luca *et al.* 2021). Global utilisation rates of Chiropractic Care by the elderly are low, with only 15% of the elderly population seeking care annually (de Luca *et al.* 2021). Lack of knowledge affects the utilisation of complementary health practices regardless of the back pain that potentially would motivate its use (Burke, Nahin and Stussman 2015).

Several participants in this study shared limited knowledge surrounding Chiropractic Care, as discussed in this subtheme. Lower levels of education are, therefore, more likely to instigate a lack of knowledge for the non-use of complementary and alternative health practices, despite the limited likelihood of a lack of need (Burke, Nahin and Stussman 2015). When healthcare literacy and knowledge are limited, healthcare services can be significantly affected (Burke, Nahin and Stussman 2015).

Lack of eloquence when utilising Chiropractic terminology indicates limited healthcare knowledge is present in this study's population. Furthermore, this lack of eloquence potentially inhibits the interprofessional acceptance of Chiropractic Care by the mainstream medical field.

In the results of this study, an area where elderly individuals commonly used incorrect Chiropractic terminology was around the discussion of Chiropractic Adjustment. Language issues surrounding the Chiropractic Adjustment are widely known to affect the Chiropractic identity negatively (Johl, Yelverton and Peterson 2017). The Chiropractic Adjustment, which is also sometimes referred to as the more antiquated manipulation, is a fundamental tool in the scope of Chiropractic Care that makes use of a manual technique of administering a low amplitude, high-velocity thrust to restore functional motion to a joint (Johl, Yelverton and Peterson 2017). The term manipulation was implemented with the inception of the Chiropractic profession in the late 1800s and has been intertwined with the professional identity for aeons as a result (Johl, Yelverton and Peterson 2017; Johnson 2020).

In South Africa, there is a preference for chiropractors to use the word adjustment instead of the word manipulation because of its speciality specificity. This is contrasted, however, internationally, as leading journals have a higher acceptance of the term manipulation in place of adjustment (Johl, Yelverton and Peterson 2017). The term manipulation is non-specific in nature and has an alternative meaning in the mainstream medical profession, which creates confusion and needs to be clarified. This language confusion surrounding the Chiropractic Adjustment has led to friction, miscommunication, and misinformation for patients and the interdisciplinary healthcare community (Johl, Yelverton and Peterson 2017). Effective communication in the interdisciplinary setting is imperative for optimal patient-centred, evidenced-based care to flourish (Johl, Yelverton and Peterson 2017).

The high utilisation of the word manipulation in the study's results could be a remnant from the previous ideology of Chiropractic, as educational standards were only made uniform in 2014 by moving away from vitalistic views into a more evidence-based paradigm (Johl, Yelverton and Peterson 2017). However, this shows the importance of emphasising the terminology used when providing the elderly Chiropractic Care. Currently, the language used around Chiropractic Adjustment by elderly participants has aggressive connotations, such as referring to the Chiropractic Adjustment as "breaking bones" and the resultant cavitation as a "crack" or "click". This terminology halts the progression of the Chiropractic profession as it perpetuates negative perceptions of aggression that were previously associated with

Chiropractic Care. Furthermore, this lack of eloquence inhibits the interprofessional acceptance of Chiropractic by the mainstream medical field.

Although more research into the field is required, there is a correlation between advanced age and limited healthcare literacy (Aljassim and Ostini 2020). When healthcare literacy surrounding Chiropractic Care is limited in a population, it can make Chiropractic Care unapproachable. Examples of where potential unapproachable language can be seen in the utilisation of futuristic terminology towards Chiropractic Care, as seen in the elderly's common referral to Chiropractic modalities as "gadgets". The term 'gadget' is non-specific and is used in reference to multiple different Chiropractic modalities in the results, such as TENS and ultrasound, which could create misconceptions. The lack of eloquence surrounding participants' understanding of Chiropractic Care suggests that Chiropractic patient education surrounding the care provided is insufficient and that Chiropractic education needs to equip future chiropractors better to educate their patients.

5.3.1.3 Understanding of Chiropractic Care's Scope of Practice

Patient understanding surrounding the scope of Chiropractic practice is often limited (MacPherson *et al.* 2015). A total of eight of this study's participants mentioned aspects of the Chiropractic Care scope in response to questions about their understanding of Chiropractic Care. Similarly, their knowledge of the scope of practice was often limited to a single or very few modalities. Robbertze (2018) found limited knowledge of the scope of practice in first-time Chiropractic patients receiving care at the DUT CDC. The potential negative impact of this on the Chiropractic profession is that limited public knowledge of the scope of Chiropractic Care and its abilities will limit those seeking it. For example, a participant shared their understanding of Chiropractic as only needles, a treatment tool which many have a phobia of (McLenon and Rogers 2019). Not addressing this limited understanding of the scope of practice creates another reason for avoiding Chiropractic Care and ensue the limited perception surrounding the care chiropractors can provide.

The diagnostic skills in the Chiropractic scope of practice enable chiropractors to act as primary care providers for musculoskeletal conditions, thus differentiating the profession from other specialities (Brown *et al.* 2014). There are demographic variations of the public acceptance of Chiropractic Care in this capacity, as seen in Australia, with 44% of the studied population considering Chiropractic Care as their primary choice for musculoskeletal

management, whereas, in the USA, only 19% of the population views chiropractors as primary healthcare providers (Cambron, Cramer and Winterstein 2007; Brown *et al.* 2014). Likewise, a study performed locally at the DUT CDC found that understanding surrounding the diagnostic abilities of Chiropractic Care was limited prior to receiving care and placed emphasis on the need for further improvement in patient education on this topic (Robbertze 2018).

A deficit in the public understanding of chiropractors' diagnostic abilities is still evident in this study, with only one participant discussing the chiropractor's diagnostic capabilities. Recommendations to display and educate patients on the chiropractor's diagnostic abilities to improve the perception of Chiropractic as primary care have been suggested; however, the evidence of this implementation is yet to be seen in patient's perceptions or experiences (Cambron, Cramer, and Winterstein 2007; Robbertze 2018).

Several participants commented on Chiropractic Care's ability to treat the specific area where the pain is experienced compared to the more generalised mainstream medicine approach of pharmaceutical interventions, a topic that will be elaborated on in the following sub-theme.

5.3.1.4 Alleviation of Pain

Musculoskeletal pain has a significant prevalence in the elderly population of KZN, with a lifetime prevalence of 86% and a point prevalence of 79% (Pendock 2018). The elderly population experiences exceptional benefits from the holistic approach provided by Chiropractic Care, as chiropractors use a multitude of different strategies when approaching the treatment of pain associated with musculoskeletal conditions (Ernst 2020). This wide resource utilised in Chiropractic Care to manage musculoskeletal pain includes: Chiropractic Adjustment, nutritional and lifestyle advice, postural corrections, massage, axillary therapeutic modalities, stretching and strengthening exercises (D'cruz *et al.* 2018).

Through analysis of this study's results, the majority of elderly participants revealed that they associated their understanding of Chiropractic Care with its ability to alleviate their pain. With the issue of musculoskeletal pain being so prevalent in this population, gaining relief from this pain has a profound positive impact on the lives of the elderly and, in turn, their perceptions of Chiropractic Care. Furthermore, the association of pain relief, relative to what the elderly

population understands about Chiropractic Care, suggests a positive perception of Chiropractic Care.

Chronic pain is evident in nearly half of the elderly population and significantly impacts their quality of life (Kirubakaran and Dongre 2019). Furthermore, chronic pain is one of the most common reasons the elderly seek medical attention, as it is perceived as a sign of health deterioration, making the relief of chronic pain a significant experience for the elderly (Pendock 2018; Kirubakaran and Dongre 2019). The results of this study indicate that the majority of elderly participants attached their understanding of Chiropractic Care to its ability to alleviate their persistent pain, when other healthcare professionals had failed to do so. This high confidence in Chiropractic Care's ability to manage elderly musculoskeletal pain is shared by both the elderly population of this study and Chiropractic practitioners (Salsbury *et al.* 2019).

Most primary care physicians in Canada also believe Chiropractic Care is effective in treating musculoskeletal complaints (Busse, Pallapothu and Vinh 2021). However, this interdisciplinary acceptance has yet to be achieved in the South African context, as the majority of general practitioners has never received or provided a Chiropractic referral (Scholtz 2019). Additionally, both the chiropractors in a survey study by Salsbury *et al.* (2019) and the participants of this study shared low confidence in other mainstream medical professional's ability to provide care. Despite this confidence in Chiropractic Care, it's utilisation among the elderly is low, with a mere fifth of elderly individuals accessing this alternative form of care globally (de Luca *et al.* 2021).

The prevalence of musculoskeletal pain in the elderly population of KZN is apparent (Pendock 2018). Both chiropractors and elderly patients have strong confidence in the care provided by the Chiropractic profession to alleviate their pain, as seen in the results (Salsbury *et al.* 2019). Efficient management of musculoskeletal pain is essential as pain negatively affects elderly individuals' health and, in turn, their quality of life (El-Tallawy *et al.* 2021). Therefore, Chiropractic Care is an underutilised resource that has the potential to make a significant positive contribution to the lives of our elders through pain reduction.

5.3.2 Theme 2: Factors Influencing the Pursuit of Chiropractic Care

The pursuit of Chiropractic Care is heavily influenced by the economic backgrounds of patients, especially in the South African context (Gliedt *et al*. 2023; Rabie, Klopper and Watson

2016). The majority of Chiropractic Care resides in the private health sector due to the current legislation that limits the Chiropractic profession's presence in the public care space (Allied Health Professions Act 63 of 1982). One exception is university clinics, such as the DUT CDC, which offer reduced fees (DUT 2022).

As discussed in the previous theme, this pursuit of Chiropractic Care is further limited by the lack of knowledge about the profession and its capacity in the public domain. Despite chiropractor's abilities to provide primary care for musculoskeletal pain and the high demand for musculoskeletal pain care, there is minimal public knowledge of their capacity to do so (Busse, Pallapothu and Vinh 2021). The current methods for the pursuit of care are mostly limited to peer-based recommendations or, as a last resort, to bridge care needs not met in the mainstream medical sector. A more active role should be taken by the Chiropractic profession to educate the public about its capabilities and, therefore, improve its utilisation.

5.3.2.1 Pitfalls of Recommendation-Based Pursuit of Care

The most influential factor on the pursuit of Chiropractic Care is the recommendations shared by others (Brown *et al.* 2014). The results of this study revealed that the elderly participants were also largely influenced to seek Chiropractic Care based off their peers' referrals. The most influential source of this peer council is from friends and family, while verbal communication is a primary drive towards new Chiropractic utilisation (Brown *et al*. 2014; Robbertze 2018).

Currently, Chiropractic Care is severely underutilised, with a mere 15% of elderly individuals making use of their treatments globally (de Luca *et al.* 2021). This suggests that the current system's motivation for individuals to pursue Chiropractic Care is insufficient. In addition, high racial bias is evident in Chiropractic Care utilisation as white individuals dominate Chiropractic Care use (Gliedt *et al.* 2023). Socioeconomics also affects its utilisation, as higher earners are more likely to pursue Chiropractic Care, while lower earners are less likely to (Gliedt *et al*. 2023). Chiropractic care's heavy reliance on word of mouth for the pursuit of care could be perpetuating this disparity.

There is a closed-loop system for the pursuit of Chiropractic Care, as seen by the disparity in elderly Chiropractic utilisation rates (de Luca *et al.* 2021). Socioeconomic status greatly influences health-seeking behaviour, as individuals in affluent populations have greater

compliance and superior health information-seeking behaviour (Muiruri 2019). Improving Chiropractic utilisation in South Africa requires several socioeconomic barriers to be overcome, including finances, transportation, accessibility to public Chiropractic Care facilities and limited healthcare knowledge (Wates, Wilson and Pfefer 2021).

The difficulty of caring for the lower socioeconomic population is aggravated by the legislature limiting Chiropractic Care's presence in public healthcare space in the South African context (Wates, Wilson and Pfefer 2021; AHPCSA 2010). Chiropractor-driven community outreach has been suggested to break the socioeconomic barrier into new communities (Wates, Wilson and Pfefer 2021). Community outreach is effective as it allows Chiropractic Care to be introduced to new demographics who may not have been exposed to it previously, disrupting the socioeconomic barriers that limit access.

In the results of this study, a participant shared a similar experience of how community outreach performed through the DUT CDC influenced her pursuit of Chiropractic Care. The majority of the elderly population, in South Africa, rely heavily on the public healthcare sector due to their low socioeconomic status and poverty (Rabie, Klopper and Watson 2016). This, in turn, requires the population to personally pay for any Chiropractic Care they may receive. More avenues need to be explored to increase and diversify the clientele accessing Chiropractic Care, as well as the removal of the restricting legislature that prohibits Chiropractic Care in the public healthcare space.

Media plays a vital role in influencing health-seeking behaviour (Muiruri 2019). When healthcare information is accessible, health-seeking behaviour increases (Muiruri 2019). Interestingly one participant discussed her influence to pursue Chiropractic Care through her exposure to print media, which supports this as an avenue to improve Chiropractic Care pursuit. This participant discussed an article read in the '*Berea Mail'*, a local free newspaper distributed in one suburb of the eThekwini area. This poses an interesting catchment method that could be implemented to draw patients to Chiropractic Care, especially in the elderly demographic, who are a large consumer of print media.

5.3.2.2 Limitations in Mainstream Medical Care Options

The clinical guidelines currently in use by South African mainstream medical professionals providing primary care are unequipped to manage the multi-morbid conditions that are commonly experienced by the elderly population (Naidoo and Van Wyk 2019). Consequently, elderly individuals held poor perceptions and experiences of the mainstream medical care they were provided. Mainstream medical patients in the public domain described dissatisfaction when discussing their perceptions and experiences due to the long wait times, illness-centred care, pill burden, and a need for priority care (Naidoo and Van Wyk 2019). Furthermore, there is evidence that the hospital setting is not capable of providing effective management of chronic pain, with more than 70% of patients not receiving any treatment at the time of admission and a further half of these patients remaining untreated even at their discharge as seen in a European study by Corsi *et al*. (2018).

The elderly comprises the majority of chronic musculoskeletal pain patients (Latina *et al.* 2019). Frustration permeated participants' discussions in this study's results when describing the ineffective and disjointed mainstream medical management they experienced while trying to manage their musculoskeletal pain. Conventional management commonly prescribed to care for musculoskeletal pain in the elderly are often either unsuitable or ineffective. These individuals are only offered pharmacological or surgical options, such as spinal blocks, surgeries, or opioids (Jenks *et al.* 2020). While underutilised, chiropractors successfully manage numerous elderly patients improving their functionality and pain levels (Jenks *et al.* 2020; de Luca *et al.* 2021). There is a clear pattern in this study of participants seeking out Chiropractic Care to fill a void experienced in the mainstream medical system. There is a lack of general public education on Chiropractic and what it can provide, which results in individuals spending significant time in the mainstream medical system without seeing results and only seeking Chiropractic Care as a last resort.

Pharmacological treatments are not only unsuitable for long-term musculoskeletal pain management, but these medications also increase the risk of pain reoccurrence (Moore *et al.* 2015; Pendock 2018). Polypharmacy is a common issue plaguing the elderly population, and one that increases their risk of adverse drug reactions (Naidoo and Van Wyk 2019). Additionally, there is often poor doctor-patient communication about the drugs elderly individuals are prescribed, resulting in confusion regarding prescription pills (Naidoo and Van Wyk 2019). Participants in this study reflected similar negative sentiments about the inefficiency of the mainstream medical treatment options, emphasising their distaste for the

burden related to pills. Evidence of maleficent care for the elderly by the mainstream medical sector is clear, and an overhaul of the way in which this vulnerable population's pain is managed is essential.

The results of this study infer that the elderly population regards Chiropractic as an effective form to treat musculoskeletal pain; they also perceive it as a tool to fill the void they experienced in mainstream care. However, in South Africa, most general practitioners have never received or provided a Chiropractic referral (Scholtz 2019). Furthermore, in South Africa, 83% of residents rely on public healthcare services and Chiropractic Care is prohibited in this sector (Rabie, Klopper and Watson 2016). This lack of interdisciplinary collaboration was also observed in this study, with only one participant being referred through mainstream channels. Improved interdisciplinary collaboration is thus deemed to be necessary for the advancement of the Chiropractic profession and for the provision of effective care to the elderly.

In the results of this study, two participants shared their desire to have started receiving Chiropractic Care earlier in life based on the positive experiential outcomes they achieved through Chiropractic Care. There is a paucity surrounding in the literature this aspect of Chiropractic Care perceptions, and it may require further investigations.

5.3.3 Theme 3: Impact of Care on the Elderly Experience

The impact care has on the elderly experience is significant. Throughout the interviews, the participants discussed the care they experienced as a result of the effective communication their Chiropractic practitioners provided. Participants also complimented the inclusion and participation they experienced in the Chiropractic Care experience. These positive patient care experiences were contrasted with the mainstream healthcare experienced observed in the South African public sector in the context of the humanisation framework.

5.3.3.1 Chiropractor's Care with Communication

Chiropractic care provided in South Africa implements a patient-centred model, and the impacts of communication on patients' experiences can be observed through this patient-centred model (Kwame and Petrucka 2021). Patient-centred communication is essential in attaining optimal health outcomes because individualised care and being responsive to

patients' individual health concerns impact their experience positively (Kwame and Petrucka 2021). The basis of patient-centred care is founded on respecting and responding to each patient's healthcare needs, preferences and values when making clinical decisions (Kwame and Petrucka 2021).

In order for effective communication to exist, a two-way dialogue between patient and practitioner is required (Kwame and Petrucka 2021). In some cases, a patient's good experience of communication can have a greater impact than the physical care that is provided (Kwame and Petrucka 2021). Several participants shared experiences of this openness through communication when receiving Chiropractic Care at the DUT CDC.

It is evident that effective doctor-patient communication is essential in providing effective primary care and, in turn, attaining patient recovery (Kwame and Petrucka 2021). To acquire a positive perception of care and clinical outcomes, healthcare practitioners need to provide care that is perceived as both considerate and sufficient for the patient's needs, two tenants both seen in patient-centred care (Kwame and Petrucka 2021). The perceptions surrounding the primary care provided by public clinics, however, did not view the care provided by the mainstream medical sector in a positive manner (Naidoo and van Wyk 2019).

Patients in the public sector perceived the health care professionals to lack respect for them as a result of the little interest shown for their concerns. This contrasts with the advice of the patient-centred model for emphasis on respect and idealised care. In Chiropractic Care, the emphasis on communication and individualised care is evident in the results of this study. The importance of healthcare professionals demonstrating both kindness and compassion is paramount in providing effective care to the elderly (Naidoo and van Wyk 2019).

The services provided by these public clinics are performed using a disease-centred approach which resulted in an experience of fragmented care by the elderly. Because these elderly individuals were required to see several different healthcare providers at the same clinic to manage their pain, this was seen as a waste of time and resources (Naidoo and van Wyk 2019). Participants mirrored this frustration in the transcripts while describing trying to receive musculoskeletal care in the mainstream medical sector. Quality healthcare requires its workers to show both concern and interest in the patients and their needs (Kwame and Petrucka 2021). The experiences of the elderly in the mainstream medical sector implied that

this care was insufficient as disinterest was perceived by their practitioner, whereas in the transcripts of this study several participants praised the careful communication provided by their Chiropractic practitioners (Naidoo and van Wyk 2019).

5.3.3.2 Effects of Patient Inclusion in Care on the Humanisation Framework

The Chiropractic profession utilises a patient-centred approach to care as an alternative to the disease-focused approach currently implemented in the mainstream medical sector (Busch *et al.* 2019; Naidoo and van Wyk 2019). This patient-centred approach promotes empathy and patient involvement in care, moving the focus away from patient symptomology only (Busch *et al.* 2019). The concepts of patient-centred care are built upon by the humanisation framework, as elements of the humanisation framework overlap and align with the patient-centred approach to care (Busch *et al.* 2019). The humanisation of care embraces the principles of inclusion, empathy and holism to ensure care is individually contextualised while emphasising the relationships between the parties involved (Busch *et al.* 2019). There are eight dimensions in which humanisation and dehumanisation of care fall (Busch *et al.* 2019).

The ways in which these dimensions of the humanisation framework interact can be observed conceptually by contrasting the perceptions and experiences of elderly individuals receiving patient-centred vs disease-centred healthcare in KZN. The elderly population had poor experiences with the disease-centred care they received in the public mainstream sector (Naidoo and van Wyk 2019). There are two categories into which each of these dimensional practices can fall: either “humanisation” or “de-humanisation” (Busch *et al*. 2019).

The first dimension where de-humanisation and humanisation are seen in the framework is in the ‘insiderness’ seen in Chiropractic Care compared to the ‘objectification’ experienced in mainstream public care. A study performed by Naidoo and van Wyk (2019) revealed that elderly participants felt they were managed like a disease to be treated, rather than an individual with health needs. This experience is contrasted with that of the elderly Chiropractic participants of this study who described experiences of insiderness of care — several participants made reference to the individualised nature of Chiropractic Care. When healthcare practitioners pay little interest to the needs and concerns of patients, it can result in them feeling dehumanised.

The next dimension contrasts whether or not a patient is provided with the opportunity to play an active role in their care (Busch *et al*. 2019). The dehumanising practice of passivity can be observed in relation to the pill burden present in the South African public healthcare sector (Naidoo and van Wyk 2019). When describing their experiences in the public sector, several participants complained of the lack of agency they were provided, despite the numerous medications prescribed; there was a poor understanding surrounding the purpose behind these prescribed treatments due to the limited information or education provided by their practitioners (Naidoo and van Wyk 2019). Throughout this study, Chiropractic practitioners were praised for their explanations and care inclusion, which allowed participants to play an active role in their own care. This agency versus passivity is demonstrated in practice when comparing the management styles of Chiropractic Care and public healthcare in South Africa. The dimension of uniqueness versus homogenisation can be explored further through the disease-centred versus the patient-centred models. This dimension explores the impacts of providing generic treatment, despite the patient's individualised needs, compared to personalising a patient's care to their unique socioeconomic situation (Ellis-Hill *et al.* 2021).

In the mainstream medical sector, care is currently heavily focused on patient processing while their individual needs and concerns are overlooked (Kelly, Mrengqwa and Geffen. 2019). In Chiropractic, this care is observed differently as care is individualised to each patient's need. The participants discussed this experience in the results when describing the individualised approach taken to their care. When patient concerns are overlooked, it results in non-compliance that negatively affects the outcome of the patients that their chiropractors are trying to ensure (Kelly, Mrengqwa and Geffen 2019).

The togetherness versus isolation dimension unpacks the impact of making connections with a patient that allows a sense of teamwork, in contrast to keeping the practitioner-patient relationship rigid. In the mainstream medical sector, there was little patient-practitioner collaboration experienced; however, the Chiropractic Care experienced by the elderly participants in the results praised the collaborative care they received.

In sense making versus loss of meaning, emphasis is placed on communication and information sharing through patient education, compared to keeping participants uninformed regarding their care (Busch *et al*. 2019). Allowing patients to have involvement in decision-making provides continuity in their care. This experience of humanisation can be seen in how

participants in this study felt that care was shown regarding their age through the practitioner's cautious approach.

Personal journey vs loss of personal journey is another dimension where the positive effects of patient inclusion can be observed in the elderly's experiences. The personal journey of the patient is upheld by knowing the patient personally, as well as their history, to allow the continuation of care (Ellis-Hill *et al.* 2021). Conversely, elderly patients experienced the loss of personal journey due to the fragmented and uncoordinated care provided by disease-centred approaches in mainstream public healthcare (Naidoo and van Wyk 2019).

Mainstream disease-centred care is currently heavily focused on processing patients, while their individual needs and concerns are overlooked (Kelly, Mrengqwa and Geffen. 2019). The detrimental effect of this fragmented disease-centred approach is the resultant lack of care continuity due to the multitude of specialists required in disease-centred care (Naidoo and van Wyk 2019). One area where the impact of continuity issue impacts is in the pill burden felt by elderly individuals receiving mainstream care. The poor understanding surrounding the purpose of these medications, compounded by the multiple adverse drug reactions, resulted in some individuals stopping these medications on their own, while others persisted despite the adverse effects (Naidoo and van Wyk 2019). Chiropractic patient centred approach bolsters the personal journey experienced by elderly individuals receiving care. Experiences of continuation in care are observed when the elderly participants referenced the long-term use of Chiropractic Care for maintenance.

The domain of sense of place versus dislocation can be contrasted in the experiences of elderly individuals receiving care in a patient-centred clinic compared to a disease-centred clinic. Participants receiving disease-centred care in the mainstream medical sector perceived health professionals to lack respect or care for their older patients (Naidoo and van Wyk 2019). A lack of interest in patients' concerns is interpreted as a lack of caring and, therefore, creates a lost a sense of place of the elderly in the healthcare system. This dislocation is dehumanising for elderly individuals to experience and, therefore, results in negative patient experiences (Ellis-Hill *et al.* 2021). In the results of this study, however, participants spoke of experiencing comfort through the patient-centred nature of the Chiropractic Care provided. This humanising practice allows the elderly to find a sense of place when receiving healthcare, as seen in Chiropractic Care, which is extremely beneficial.

Embodiment vs reductionism can be viewed in the approach of a healthcare professional, where patient-centred care cultivates embodiment due to patient-inclusion, whereas reductionism is felt in the disease-centred approach, as it reduces a patient to their diagnosis (Ellis-Hill *et al.* 2021). A study performed by Naidoo and van Wyk (2019) revealed that the use of this disease-centred approach made elderly individuals feel as if they were merely a disease to be treated rather than an individual with complex healthcare needs. The elderly's perceptions surrounding these mainstream healthcare experiences were poor as this disease-centred approach fundamentally relies on reductionism for the management of patients, despite its dehumanising nature. The participants in this study shared an opposing experience of holism, as the emphasis was placed on caring for elderly patients in their totality. Chiropractic care's patient-centred approach, therefore, allows for the embodiment of patients in their care, which was perceived with better regard.

Patient inclusion in care is fundamentally attributed to the elements of the humanisation framework (Busch *et al*. 2019). Participants in this study collectively shared positive perceptions of the inclusion, consultation and education they received on their care, as it provided them with the ability to contribute fundamentally to the decisions being made surrounding their care. This is in contrast to the experiences of elderly individuals in the mainstream sector, where the disease-centred approach is applied.

5.3.4 Theme 4: Insights Observed through Lifetime Experiences

Analysing the lifetime experiences of elderly individuals provides a unique perspective on the perceptions and experiences of those receiving Chiropractic Care over time, as their lived experience encapsulates the majority of the profession's legitimacy in South Africa (CASA 2022). This theme details the growth of the Chiropractic profession through the lens of the elderly's experiences.

The Chiropractic profession's growth includes the diversification of treatment modalities and a treatment style shift, which both coincided with the introduction of local Chiropractic education in South Africa (CASA 2022). There are four participants who contrasted their experiences before and after this shift in management style and diversification, while the other participants could only share recent experiences as their utilisation of Chiropractic Care occurred recently. In the results, the elderly participants' newer experiences of Chiropractic Care were permeated with the idea of 'more'; the examples discussed include more doctor-patient communication, more diverse treatment options and a greater focus on education.

5.3.4.1 Diversification of Chiropractic Therapies Utilised

The Chiropractic profession's inception in South Africa occurred less than 100 years ago, while the profession has only been legitimised for 52 years (CASA 2022). This timeline emphasises the youthfulness of the Chiropractic profession in the South African context compared to Chiropractic in the USA, whose conception occurred in the late 1800s. (Hawk *et al.* 2017; CASA 2022). Furthermore, chiropractors only started being educated locally, with the requirement of a Master's degree as the minimum qualification, 34 years ago, making the first output of locally educated chiropractors only entering into practice in 1994. These elderly individuals share lived experiences of Chiropractic Care that encompass the majority of Chiropractic's legalised history in South Africa. Therefore, this population's extensive time reference allows their perceptions and experience to be moulded by occurrences that expand the shift in public perception of Chiropractic in South Africa, providing them with interesting insights.

The elderly participants shared in detail how their experiences of Chiropractic Care personally shifted with time due to this shift in care approach. The early experiences detailed by the participants of this study were described as aggressive, short, poorly communicated, limited to modalities of adjustments and minimal massage. This initial style of treating originated from chiropractors travelling to South Africa with education from the USA, whose care approach was centred and limited to the Chiropractic Adjustment (Johnson 2020). This contrasts the Chiropractic Care experienced currently by the elderly as several participants complimented the diverse range of care options utilised, as well as the gentle-natured care and thoughtful doctor-patient communication they had received.

South African chiropractors currently provide a diverse range of care (DUT 2022). When Chiropractic Care education shifted from internationally to locally sourced, a new standard of education was created in South Africa for the next generation of chiropractors. The majority of chiropractors practising in South Africa today apply a diversified approach to the care they provide (Melka *et al.* 2021). The scope of Chiropractic practice in the South African context has remained stable since 1994; however, some participants described experiencing this shift in education and the legalisation of modalities whilst it was occurring. These participants detailed the introduction of new management options that provided an increased focus on myofascial care. Several participants discussed experiencing the advantageous effects that resulted from this increased myofascial focus when new treatment tools were introduced by the new wave of locally educated South African chiropractors.

One participant, a regular Chiropractic Care visitor, discussed their experiences of Chiropractic's evolution with the slow introduction of new modalities, such as dry needling and massage. Another participant, who has had a 40-year patronage of Chiropractic Care, described their initial experience of dry needling, discussing receiving this new component of Chiropractic Care secretively due to the poor legislation at the time. It is clear that acceptance of Chiropractic Care into the healthcare sector has been a slow and challenging process, with legalities not keeping up with current public interests.

In South Africa, as of 1994, the Chiropractic scope of practice diversified — consisting of the Chiropractic Adjustment, the use of auxiliary therapies, and patient education (Melka *et al.* 2021; DUT 2023). Although the Chiropractic Adjustment is regarded by participants as a highly effective tool in caring for the elderly, the introduction of the diversified approach was well perceived as a point of professional growth for Chiropractic Care (Wong *et al.* 2023). The auxiliary therapies chiropractors are qualified to implement include ultrasound, TENS, LASER, interferential current therapy (IFC), traction, dry needling, ischemic compression, infrared therapy and shockwave therapy (DUT 2022). The large scope of practice, employed in Chiropractic Care, is a highly beneficial tool when developing treatment plans for the elderly population. The diverse assortment of treatment modalities and non-invasive options available guarantees these individuals the highest standard of care, regardless of any comorbidities they may have in place.

The elderly population share an elevated risk of contraindications for some Chiropractic therapies, such as the use of manual Chiropractic Adjustments in patients with severe osteoporosis, cervical adjustments in hypertensive and stroke patients or TENS in patients with a pacemaker fitment (Roberts and Wolfe 2012; Teoli and An 2019). However, having multiple avenues to treat a patient's pathology using Chiropractic ensures every patient receives the highest stand of care despite any co-morbidities or contraindications they may have. This can be observed in the adaptation of the activator, a tool that allows Chiropractic Adjustments to be performed on elderly individuals who are osteoporotic, while the large scope of modalities targeting a patient's myofascial component ensures substitutions in care can be made if any contraindications are present (Roberts and Wolfe 2012). Each elderly patient's care is individualised to their specific needs; and therefore, their perspectives are unique based on their experiences of Chiropractic Care. Several participants shared their appreciation for this individualised care approach in the results of this study.

5.3.4.2 Shift in Management Style

Chiropractic care first arrived in South Africa in the late 1920s coinciding with the initial peak of Chiropractic Care utilisation. At this time, institutions providing Chiropractic education were limited to the USA (Johnson, 2022). The duration of these courses has not changed since the medical reforms of the 1910s as both then and now USA Chiropractic education lasts approximately three years (Johnson 2022). The first Chiropractic institution to open outside of the USA only occurred 50 years after the profession's establishment, and it required a further 70 years to pass for the first Chiropractic educational programme to be established outside of continental North America (Johnson 2022).

Chiropractic education in South Africa began a mere 34 years ago, making the first output of locally educated chiropractors only entering into practice in 1994 (CASA 2022). The impact of local Chiropractic education on the Chiropractic professions is clear: In South Africa, 84% of chiropractors are aged between 26 to 50 years, with the majority being educated in South Africa and in accordance to the current standards of South African Chiropractic Care (Melka *et al.* 2021).

A commonality that was perceived by several elderly participants was how their earlier experience of Chiropractic Care strongly juxtaposed the more recent experiences, with one participant expressing that, as an elderly individual, they would not have felt comfortable receiving the care provided by the previous Chiropractic style due to its aggressive nature. The shift in treatment style is illustrated in the elderly's discussions of the contrasting experiences of Chiropractic in the past, compared to Chiropractic Care now. This shift can be attributed to the change in the educational source of the Chiropractic profession. Participants spoke of experiencing a perceived increase in the level of education through the options of care provided by those who were locally educated compared to when they started receiving care. The change in education from international to local had massive input on the treatment style seen in Chiropractic Care. This subsequently affected the perceptions of Chiropractic Care and, as a result, these new experiences altered the elderly's perception towards Chiropractic Care.

This treatment style shift could also be attributed to the use of a patient-centred evidence-based approach, rather than the dogmatic curative subluxation-based approach of the past. (Melka *et al.* 2021). The biggest impact that these patients experienced was attributed to the

increased patient-centred style of care provided, as discussed in the third theme. Similarly, the more recent experiences in the results of this study concur with current literature that Chiropractic Care has an increased public approval rating compared to the past, as a result of this shift, as seen in a Netherlands study (Lambers and Bolton 2016).

Most South African chiropractors practice in privately owned clinics and use the diversified technique, which can be contrasted to the ideologies of the 1920s vitalistic chiropractors whose scope was limited to an adjustment (Melka *et al.* 2021). Chiropractors have the expertise to evaluate patients, diagnose musculoskeletal conditions and provide treatment and management for these conditions (Allied Health Professions Act 63 of 1982). With more education, several participants see the impact on the treatment abilities of their care provider Participants generally associated the idea of “more” with the current experiences of Chiropractic.

5.3.5 Theme 5: Impact of Age on the Elderly Experience

While the participants of this study acknowledge that age affects their rate of healing, all of the participants in this study agreed that there was no age related bias experienced while receiving Chiropractic Care. Furthermore, several participants discussed the benefits they experienced through receiving Chiropractic Care on their quality of life. These benefits were attributed to pain reduction, increased mobility and emotional care gained through Chiropractic Care.

5.3.5.1 Improved Quality of life Through Chiropractic Care

The elderly population often experiences a reduced quality of life due to musculoskeletal pain and, in turn, seeks health care services as a result (Pendock 2018; El-Tallawy *et al.* 2021). The increasing life expectancy seen in the elderly population should not affect the quality of life these individuals lead (Pendock 2018). The quality of life of elderly individuals can be measured through the older person’s quality of life questionnaire (Bong *et al.* 2021). This questionnaire encapsulates all aspects of the elderly individual quality of life through its eight dimensions. These dimensions include overall life; health; participation and social relationships; freedom, independence and control over life; home and neighbourhood; psychological and emotional welfare; financial circumstance; and leisure activities (Bong *et al.* 2021). The numerous participants of this study spoke of how the elements of Chiropractic Care affected these dimensions of their person and, in turn, their quality of life.

The majority of participants in this study discussed experiencing an improved status in their musculoskeletal ailments as a result of the Chiropractic Care they had received. This improvement in status contributes to the generalised elevation in the quality of life of the elderly population, thereby attributing positively to the dimension of quality of life overall. Overall life is the first dimension affecting the elderly's quality of life; the elderly population studied shared experiences of Chiropractic Care improving their lives and, therefore, contributing to their quality of life (Bong *et al.* 2021).

Chiropractic care effectively manages musculoskeletal pain (Robbertze 2018; Brown *et al.* 2014). The efficient management of musculoskeletal pain is essential because pain negatively affects elderly individuals' health (El-Tallawy *et al.* 2021). Several participants shared experiences of how Chiropractic Care alleviated their pain. The reduction of pain provided by Chiropractic Care, therefore, improves the elderly health domain and, in turn, their quality of life. This is evident with participants saying "It was the first time in my life, you know, that backache was completely gone" and "Better life. Less, less pain" when discussing their experiences of Chiropractic Care (Bong *et al.* 2021).

The management of musculoskeletal pain in the elderly in an efficient time period is of paramount importance because if it is left untreated, it can lead to chronic pain and, eventually, in the long term, disability (Pendock 2018). Disability negatively affects an elderly individual's ability to participate actively in life, thereby reducing the quality of life. Several participants discussed how Chiropractic Care enabled them to return to and maintain social participation. The elderly participants in this study described significant experiences of regaining functional ability through Chiropractic Care and, as such, increasing their quality of life (Bong *et al.* 2021). The participant described her ability to maintain her level of activity through the utilisation of Chiropractic Care and thereby partake in leisure activities.

Several participants discussed improvements experienced in their mobility and agility from utilising Chiropractic Care, providing these individuals with independence and, in turn, a sense of control over their lives. A participant discussed how Chiropractic allowed her to be able to perform activities she enjoyed, such as walking, with increased participation in this leisure activity once the Chiropractic Care she received restored mobility. More than half of the South African elderly patients experiencing musculoskeletal pain complained of pain affecting their activities of daily living (Pendock 2018). A participant described experiencing pain so severe that she was unable to sit but relief provided through Chiropractic Care allowed her to reclaim

this aspect of independence around her home, as sitting is a basic position utilised in daily movement. Descriptions of Chiropractic Care increasing elderly patient functionality were experienced throughout the results of this study. Chiropractic care improves the elderly's quality of life by improving their functionality and, therefore, providing them independence for their activities of daily living. Multiple dimensions of the elderly's quality of life are impacted by alleviating pain-related disability, such as their independence, social participation and leisure activities.

Consideration of the elderly's psychological and emotional welfare is essential as elderly individuals suffering from musculoskeletal pain or arthritis have a two to three times higher risk of being diagnosed with anxiety or depression compared to the general elderly population (Pendock 2018). Furthermore, elderly individuals suffering from musculoskeletal pain in multiple sites have a 40% increased risk of being diagnosed with anxiety or depression compared to those who are not in pain (Pendock 2018). The correlation between psychological and emotional well-being and experiencing musculoskeletal pain is clear, as is its impact on their quality of life (Bong *et al.* 2021). Chiropractic care can help reduce musculoskeletal pain in the elderly, thereby reducing the depression and anxiety associated with this pain (Pendock 2018). Some participants in the results also drew a link between pain relief achieved with Chiropractic Care and increased positive mood.

Financial circumstances are the final dimension affecting the elderly's quality of life. In South Africa, the majority of the elderly population is considered to have low socioeconomic status and to be living in poverty, thus making the elderly heavily reliant on the public health care system (Rabie, Klopper and Watson 2016). Legislature implemented prior to the development of world-leading Chiropractic education still limits Chiropractic Care in the public sector despite the desperate need for basic musculoskeletal pain care in the elderly (AHPCSA 2010). Additionally, low income is considered a socioeconomic risk factor for pain (Qiu *et al.* 2020).

In KZN, the only full-time public Chiropractic clinic is the DUT CDC; this clinic is highly utilised by the elderly because of the clinic's low fees, which reduce the economic burden of musculoskeletal pain placed on these individuals (Pendock 2018). The legalities surrounding where chiropractors can provide care further limit public access to this form of pain management, especially in this vulnerable population (AHPCSA 2010). Chiropractic care is currently absent in the public sector, with the one exception in KZN being the DUT CDC (DUT 2022). Multiple participants in this study commented on the affordability of the DUT CDC

Chiropractic Care prices and their appreciation for the access to care this public clinic provides.

5.3.5.2 Age Inclusion Experienced in Chiropractic Care

Age-based discrimination poorly affects the quality of healthcare provided to the elderly population (Naidoo and van Wyk 2019). There are multiple manifestations of ageism in the health care system that can range from the prescription of inappropriate treatments to discriminatory undertones during communication (Naidoo and van Wyk 2019). Over 80% of the financially vulnerable elderly individuals in the Western Cape of South Africa shared their experience of finding the personnel at public clinics to be unhelpful (Govender and Barnes 2014). When the clinical care provided to the elderly is substandard, the negative perceptions of ageing and the ability to access care successfully are reinforced (Naidoo and van Wyk 2019). However, it is evident that the elderly population hold more value in the relationships they share with their healthcare providers based on individualised care compared to disease-focused management (Naidoo and van Wyk 2019).

The experience-based recommendations provided by elderly patients to reduce related age bias in the public primary care sector in KZN was to emphasise empathy from the public medical sector staff (Naidoo and van Wyk 2019). The experience in the public health system is greatly contrasted by the experiences of elderly individuals in this study, with some sharing how they experienced chiropractors communicating with care and their empathetic demeanour. Another ageism reduction method suggested is the shift to patient-centred and integrated health care for the elderly population (Naidoo and van Wyk 2019).

The public health sector's current approach to care is focused on disease-based management, which evidently was poorly experienced by the elderly population of South Africa (Naidoo and van Wyk 2019). Chiropractic care already implements a patient-centred approach to care provided, which several participants made reference to experiencing positively in the results. There are both economic and health benefits to the implementation of integrated healthcare for the elderly population but, despite this globally, there has been little progress made to achieve this objective (Alkhawaldeh *et al.* 2016).

The study by Naidoo and van Wyk (2019) identifies the need for medical South African health policymakers to find a more resource-efficient method to provide quality care to the elderly

population, as the population are currently dissatisfied with their care. Chiropractic care has a very limited presence in the public sector due to outdated legislature; however, with policy updates, more collaborative efforts of Chiropractic could be made in the public sector to provide the comprehensive primary care that elderly individuals desperately require (AHPCSA 2010).

Patient-centred and integrated care for the elderly is considered highly effective when implemented and those accessing the public medical sector recommended integrated health care for care continuity (Naidoo and van Wyk 2019). Subsequently, a shift to Chiropractic utilisation as the primary care provider for elderly musculoskeletal pain could help reduce issues of polypharmacy and inappropriate drug prescription as Chiropractic provides non-pharmaceutical management for musculoskeletal pain. If the primary provider of musculoskeletal pain has a non-pharmacological focus, fewer medications will be prescribed, thus alleviating the need for numerous medications and the resultant polypharmacy.

This study concurs with that of Naidoo and van Wyk (2019) in that geriatric care training in healthcare professions needs to be improved with an educational focus on the integration of care and patient-centred care to improve the healthcare experience of the elderly population. In this study, the majority of the participants felt that age had no significant impact on the Chiropractic Care they received; however, they did note the individualised approach taken by chiropractors for their care. Additionally, participants suggested that age had no impact on their perception of Chiropractic Care efficiency and, therefore, would keep seeking care despite age.

5.3.6 Theme 6: The Draw of an Alternative Healthcare Approach

In South Africa, the elderly population rely predominantly on public healthcare services due to their low socioeconomic status and high poverty rates (Rabie, Klopper and Watson 2016). These elderly individuals are often dissatisfied with the care they experience when utilising public healthcare services in South Africa (Naidoo and van Wyk 2019). The conventional care prescribed to manage musculoskeletal pain in the elderly is typically pharmaceutical or surgical in nature (Jenks *et al.* 2020). In the results of this study, several participants shared their aversion to these conventional options, discussing their distaste for the copious medications they were prescribed, which often proved ineffective in managing their pain long-term. The majority of participants felt Chiropractic Care proved more effective at offering long-

term pain relief than the conventional options provided in the mainstream public sector. Brown *et al.* (2014) and Robbertze (2018) found similar efficacy in Chiropractic Care as an alternative to pharmaceutical and surgical management options.

5.3.6.1 Desire for a Non-Pharmacological Solution and Long-Term Relief

The prescription of pharmacological therapies for managing musculoskeletal pain is a frequent occurrence in the mainstream medical sector (El-Tallawy *et al*. 2021). However, these therapies are often mismanaged, as pharmaceutical interventions are only suitable in short-term musculoskeletal pain cases, and lack effectiveness when consumed long-term in chronic pain management (Moore *et al.* 2015). The long-term consumption of drug therapies is not only unsuitable for managing chronic musculoskeletal pain, but these medications also increase the risk of pain reoccurrence (Moore *et al.* 2015; Pendock 2018). Several elderly participants of this study shared consistent experiences of the unsuccessful pharmaceutical management of their musculoskeletal pain. Furthermore, they perceived their prescribed pain medications to be mere masks rather than a true solution for their care. Despite this, generalised pharmaceutical managements are still predominantly prescribed to elderly individuals suffering from musculoskeletal pain. (Naidoo and van Wyk 2019).

The elderly population is the largest consumer of pharmaceutical products, therefore placing them at an elevated risk of developing polypharmacy (Projovic, Vukadinovic and Milovanovic 2016). In South Africa's public health sector, this issue of polypharmacy plagues the elderly population, with the majority experiencing a 'pill burden' as a result of the multiple medications they are prescribed (Naidoo and van Wyk 2019). A contributing factor to this 'pill burden' stems from the poor understanding surrounding the purpose of these prescribed medications due to inadequate explanations and patient education provided by physicians (Naidoo and van Wyk 2019). Moreover, these elderly individuals often experienced multiple adverse drug reactions, with some individuals resorting to stopping these medications on their own while others persist despite the adverse effects (Naidoo and van Wyk 2019). Several participants of this study discussed their negative experiences of this 'pill burden' and eventual pursuit of an alternative solution to drug management.

The complex needs of the elderly population are often overlooked and instead placated with the prescription of ineffective medications (Naidoo and van Wyk 2019). Chiropractic care is viewed as an effective alternative form of management to replace medications for

musculoskeletal care; however, only a minority of elderly individuals utilise this alternate form of care (Brown *et al.* 2014; Robbertze 2018; de Luca *et al.* 2021). The relationship between polypharmacy and negative clinical outcomes is clear, as is the efficacy of Chiropractic management in the elderly despite its underutilisation. This signifies the need for interdisciplinary collaboration to adequately address the true needs of this vulnerable population.

Polypharmacy increases the chance of elderly patients taking potentially inappropriate medications (Vatcharavongvan and Puttawanchai 2019). The prescription of inappropriate medications is commonly seen in the management of chronic conditions such as low back pain (Vatcharavongvan and Puttawanchai 2019). These potentially harmful medications should not be overlooked as they increase mortality by 44% due to medical errors and adverse effects (Vatcharavongvan and Puttawanchai 2019). Recommendations of non-pharmacological substitute measures have been made to avoid polypharmacy and, therefore, reduce the prescription of inappropriate medications (Vatcharavongvan and Puttawanchai 2019).

Physicians' knowledge surrounding potentially inappropriate medications is limited globally, while in South Africa, this issue of inappropriate drug prescription is also highly prevalent (Naidoo and van Wyk 2019; Vatcharavongvan and Puttawanchai 2019). Currently, there is a greater emphasis on curative medicine rather than preventative or rehabilitative medicine in South Africa, which is detrimental to the musculoskeletal care of the elderly (Naidoo and van Wyk 2019). Since pharmaceutical options are not recommended as the first-line approach to managing musculoskeletal pain, corrections to the protocols in which elderly individuals are currently managed in the South African public sector need to be implemented (Bussières *et al.* 2018). Chiropractors are primary care providers that specialise in non-invasive, non-pharmacological care of musculoskeletal complaints and, therefore, have the potential to provide an alternative to medication-centric care, which in turn can reduce the pill burden experienced by the elderly population (Brown *et al.* 2014; Naidoo and van Wyk 2019).

Bussières *et al.* (2018) outlined best practice in the management of the elderly, which places emphasis on utilising a patient-centred approach to care. This patient-centred care approach is well suited for the elderly patient as the holistic nature ensures good doctor-patient communication is achieved (Bussières *et al.* 2018). In the results of this study, participants revealed their appreciation for the superior communication experienced in Chiropractic Care,

compared to that experienced in the mainstream sector. Chiropractors may be the more suitable option to provide this primary care to the elderly, as a result of their increased perceived effectiveness and patient-centred approach. Chiropractic care, therefore, has the potential to alleviate part of the burden currently felt by the elderly, as it is an effective non-pharmacological way to care for the elderly with musculoskeletal pain (Bussières *et al*. 2018)

5.3.6.2 Fear of Degeneration and Surgery Avoidance

There is currently minimal consensus surrounding what is considered surgically curable when managing musculoskeletal conditions (Gosselin 2020). The indications for musculoskeletal surgery are not limited to a definitive cure but also include temporary relief (Gosselin 2020). There is an increased prevalence of surgical intervention in the management of back pain and, in cases where these surgeries fail to relieve pain or only temporarily relieve pain, patients are often diagnosed with FBSS (Baber and Erdek 2016). The risk of FBSS is significant as the conservative estimate of its prevalence is 20%; however, it has an estimated prevalence of up to 40% of surgical cases (Baber and Erdek 2016). The result of FBSS is chronic, long-standing pain with or without radicular symptoms (Baber and Erdek 2016). In the results of this study, some participants indicated they held an aversion to surgical interventions, a fact that is unsurprising considering the high prevalence of surgical failures resulting in chronic pain (Baber and Erdek 2016).

It is important to consider the impacts of chronic post-surgical pain on the elderly as it affects their functionality, delays their recovery and reduces their quality of life (Esses *et al.* 2020). The elderly population has a 40% incidence of post-surgical chronic pain, yet the utilisation rates of surgical procedures continue to grow in this population (Esses *et al*. 2020). Furthermore, it is important to note that the incidence of chronic pain post-surgery increases with age (Esses *et al.* 2020). The strongest predisposing factors for chronic pain are pre-existing pain conditions and movement-invoking pain. (Esses *et al.* 2020). In some musculoskeletal surgical cases, surgical outcomes can be compared to those of rehabilitative therapy (El-Tallawy *et al.* 2021). Several participants made reference to Chiropractic Care as a tool in the maintenance of their musculoskeletal pain in order to avoid surgical interventions. These findings are consistent with those of Robbertze (2018) and Brown *et al*. (2018), who found that Chiropractic Care is perceived as an effective alternative form of care in place of surgery. The burden of surgery experienced by the elderly population is significant. Ensuring that this vulnerable population is provided the full scope of their alternative options is essential for the elderly to make informed decisions.

5.4 CONCLUSION

The fifth chapter of this study discussed the results detailed in Chapter Four. The results were contrasted to that of the elderly's experiences in the public healthcare sector of South Africa and other pertinent literature. Overall, the experience of the elderly receiving Chiropractic Care in the eThekwini area was overwhelmingly positive. While the participants of this study acknowledged that age affects their rate of healing, all of the participants in this study agreed that there was no age related bias experienced while receiving Chiropractic Care. Furthermore, several participants discussed the benefits they experienced through receiving Chiropractic Care on their quality of life. These benefits were attributed to pain reduction, increased mobility and emotional care gained through Chiropractic Care.

In the following chapter, the elderly population's perceptions and experiences of Chiropractic Care will be presented in the conclusion.

CHAPTER SIX

CONCLUSION

6.1 INTRODUCTION

This chapter reiterates and summarises the aims of this study. Additionally, the research question posed in the first chapter of this study will be addressed. The study's strengths and limitations are discussed, followed by the researchers' reflections and recommendations that were prompted by this study. The objective has been to gain an understanding into the perceptions and experiences of the elderly in order to improve the care they are provided; the research questions were formulated in order to address this aim.

6.2 SUMMARY OF THE STUDY

The aim of this study was to determine the current perceptions and experiences of elderly individuals towards Chiropractic Care in the South African context, focusing on the elderly population in the Durban Metropolitan area specifically. The elderly may place an increased burden on the healthcare system in years to come, especially in KZN, due to the rapidly growing aged population. Chiropractic care has the potential to alleviate part of this burden as it has the capacity to care for the high prevalence of individuals seeking care for musculoskeletal pain. Within South Africa, there is limited research surrounding the elderly's perceptions and experiences surrounding Chiropractic Care. However, the poor perceptions and experiences in the mainstream public health sector of South Africa are well documented.

The perceptions and experiences of elderly individuals receiving Chiropractic Care extrapolated from this study were overwhelmingly positive, with patients praising the profession's ability to alleviate their pain and increased patient focus through patient-centred care and the humanisation framework. It is clear that experiences in the patient-centred domain, such as Chiropractic Care, were perceived superiorly to that of the disease-centred approach used in mainstream public health care.

6.2.1 Research Question One: What Are the Perceptions Held by Elderly Individuals for Chiropractic Care?

Limited understanding surrounding Chiropractic Care was seen throughout the elderly's perceptions of this profession. Currently, the general public holds many false perceptions of Chiropractic Care due to misinformation or outdated perceptions. High levels of misinformation are present, even after patients experience Chiropractic Care, with most patients lacking eloquence when discussing their Chiropractic Care. Limited utilisation, due to limited public access to Chiropractic Care, is a significant barrier perceived by elderly individuals as the DUT CDC is the only public facility, while there is limited public knowledge about the care chiropractors are capable of providing, which further limits those who access this care. The routes of Chiropractic Care utilisation need to be diversified as peer referral, the primary tool currently in use, is insufficient as seen by Chiropractic Care being underutilised.

The shift in perceptions surrounding Chiropractic Care can be observed through the experiences of some participants who described early interactions with Chiropractic to have a more aggressive connotation than previously, while the current narrative surrounding Chiropractic Care is more careful and patient-focused. This study observed, however, that perceptions have the potential to moulded by new experiences of Chiropractic Care, as well as how limited knowledge can be counteracted by exposure to the profession.

6.2.2 Research Question Two: What Are the Experiences Held by Elderly Individuals for Chiropractic Care?

All participants in this study shared positive experiences of Chiropractic Care, with several participants praising the profession's ability to alleviate their pain and increase their functionality, thus elevating their quality of life. The personalised nature of patient-centred care was also appreciated, because when empathetic communication is prioritised, it ensures that elderly individuals' needs and concerns are met.

No ageism was experienced in the results of this study. The profession was praised for its humanising and interactive approach to musculoskeletal care, which contrasts the experiences of care in the public sector (Naidoo and van Wyk 2019). Several participants discussed using Chiropractic Care as a more long-term alternative to the mainstream's pharmaceutical and surgical dominating care options, as the elderly described poor

experiences when utilising these interventions from the mainstream sector. Chiropractic care was experienced to be an effective and valued resource in elderly musculoskeletal care.

6.3 STRENGTHS OF THE STUDY

The qualitative nature of the interviews allows a voice to be given to a vulnerable population, who are commonly overlooked. This population also provides a unique perspective as their lived experiences encapsulate the majority of the relatively youthful South African Chiropractic profession. How this positive shift in perceptions surrounding Chiropractic Care occurred was observed through these experiences, confirming the pertinence of the patient-centred approach in pain care. The participants detailed the gentle nature of the current Chiropractic approach that starkly contrasts with the aggressive nature previously associated with Chiropractic Care. Furthermore, these experiences confirm the positive momentum Chiropractic Care has had on improving the perception of Chiropractic in South Africa.

6.4 LIMITATIONS OF THE STUDY

The knowledge of Chiropractic Care held by the general public is very low and relies largely on patient experiences. This is of concern as Chiropractic Care utilisation is heavily biased by socioeconomic factors. This results in a limited understanding of the true extent of knowledge held by the elderly population towards Chiropractic Care as this documents only those with a previous experience and does not take into account all those who have had no prior Chiropractic interactions. The use of facemasks during the interview process in compliance with COVID-19 safety protocols created a physical communication barrier. This resulted in additional hearing difficulties for the elderly participants as well as limiting their ability to supplement their hearing with lip reading. This study has a small sample size therefore reducing its generalisability. Furthermore, this study is not easily reproducible in the South African context due to the lack of public Chiropractic practices.

6.5 RESEARCHER'S REFLECTIONS

The elderly and those with chronic pain feel neglected in the mainstream medical system as they rarely receive effective long-term care. Utilising Chiropractic primary care can ensure that these individuals achieve their maximum functionality and are provided with the tools to help manage their pain. Current legislature limiting Chiropractic Care in the public sector limits the availability of Chiropractic to the general population, while perpetuating the socioeconomic

bias that is prominent in Chiropractic utilisation today. The DUT CDC is the only full-time public Chiropractic provider in KZN and the only one of two public facilities in South Africa. South African policy needs to align with the requirements of the population as chiropractors effectively provide primary care for musculoskeletal conditions, an area where the experiences of care are currently poor. Chiropractic interventions are also non-pharmaceutical and non-invasive in nature, therefore making this form of care a potential solution to the pill burden currently being experienced by the elderly.

6.6 RECOMMENDATIONS

The following recommendations are made as a result of the findings of this study:

- Focus on patient education, specifically surrounding Chiropractic terminology.
- Drive for legislative change to allow Chiropractic Care into the public healthcare space.
- A further study into the perceptions and experiences of long-term Chiropractic users in particular.
- Motivate public Chiropractic education through community outreach programmes.
- Limit pharmacological interventions for musculoskeletal pain in the elderly through interdisciplinary collaboration.

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APPENDICES

Appendix A: Semi-Structured Interview Guide

INTERVIEW QUESTIONS:

1. **Please may you describe what you understand or perceive about Chiropractic care as well as Chiropractic care in the elderly**

   Probes:

   - *In what way would you say your understanding of Chiropractic care influenced your decision to attend a Chiropractic treatment?*
   - *Have you heard of any other elderly individuals who have benefited from Chiropractic treatment?*
   - *How did their experience influence your perception of Chiropractic care?*
   - *What is your understanding of how what Chiropractors can do for elderly patients?*
   - *Please can you elaboration on the reasons you choose to seek Chiropractic care*
   - *Please can you elaborate on why you chose to seek Chiropractic care from your current practitioner?*
   - *What did you perceive the Chiropractic treatment would consist of?*
   - *What lead you to form this perception of that the treatment was composed of?*

2. **Kindly explain you feel about receiving Chiropractic care as an elderly patient**

   Probes:

   - *Can you describe any positive or negative feelings you have towards Chiropractic for the elderly?*
   - *Please can you elaborate on what influenced you to develop the positive/negative feelings*
   - *In your opinion how could a Chiropractor alleviate any negative feelings you may have?*

4. **Please can you describe your experiences of the Chiropractic care you have received**

   Probes:

   - *What were the treatment modalities that you expected to be used on you?*
   - *What were your experiences in terms of your Chiropractic practitioner?*
   - *If you have received any Chiropractic treatment from any other private practices please can you elaborate on any differences you may have experienced.*
   - *How many treatments did you expect you would need to receive before seeing a positive outcome?*
   - *Which component of the treatment did you expect to get the most relief from?*
   - *Did you expect your outcome to be different to that of a younger individual and if please elaborate on these differences?*
   - *Please can you elaborate of any previous experiences you have had with any other Chiropractors?*

5. **Please can you describe if any aspects of your treatment could have been improved upon**

   Probes:

   - *How would you describe your overall experience?*
   - *Is there anything the practitioner could have done to improve your experience?*
   - *Is there anything you wish your treatment had included that was lacking?*

Appendix B: Letter of Information (English)

LETTER OF INFORMATION

Title of the Research Study: Perceptions and experiences of elderly patients receiving Chiropractic care at a Chiropractic clinic in the Durban Metropolitan area

Principal Investigator/s/researcher: Holly Claire de Lange **(**Btech: Chiropractic)

Co-Investigator/s/supervisor/s: Dr Desiree Varatharajullu (M Tech: Chiropractic)

Brief Introduction and Purpose of the Study: This study aims to identify the perceptions and experiences that elderly individuals have with regard to Chiropractic care. There is a high prevalence of musculoskeletal conditions in the elderly population and Chiropractic care being a common tool to treat these conditions. The information collected by the study aims to be used to help better treat these elderly patients thereby hoping to improve their populations future experiences while receiving Chiropractic care.

Good Day, I hope this informational letter finds you well. I am a 5th year student at Durban University of Technology performing research for my Master's degree in Chiropractic. Research is a systematic search or enquiry for generalized new knowledge. I would like to invite you to participate in my research study which aims to gain better understanding of Chiropractic care within the elderly population in hopes to improve future care. Please feel free to ask any and all questions at any time as your full understand is important me. You are welcome to discuss your participation in the study with your friends and family and you are under no obligation to commit at this stage. This Letter is yours to keep. If you would like to participate I would very much appreciate it.

Outline of the Procedures: The study will include individuals who are 60 years of age or older and have attended a Chiropractic treatment at least one time previously. If you agree to participate in this study, you will be required to participate in an approximately 30 minute interview which will be audio recorded. The interview will take place in a private room at the Durban University of Technology,

Chiropractic Day Clinic or in the Faculty of Health Sciences research room, over a Zoom call or later determined location suited to your needs.

Risks or Discomforts to the Participant: There will be no risk or discomfort towards the participant within this study.

Reason/s why the Participant May Be Withdrawn from the Study: The participant may withdraw from the study for any reason at any point with no unfavourable consequences.

Benefits: A better understanding of the experiences of elderly patients towards Chiropractic care will be achieved and this information will fill the existing gap in the literature.

Remuneration: No remuneration will be received by the participant within this study.

Costs of the Study: There will be no cost on the behalf of the participant towards the study.

Confidentiality: All information provide throughout the study will remain confidential and will be use for the purpose of research only.

Results: The result obtained from this research study will be published via an article.

Research-related Injury: There is no possibility for injuring towards the participant during the study as it only consists of an interview.

Storage of all electronic and hard copies including tape recordings All data will be kept at the Chiropractic department at the DUT until it is shredded after five years. Electronic data will be stored on a password protected computer and deleted after five years.

Persons to Contact in the Event of Any Problems or Queries:

Principle investigator: Holly de Lange Cell: 083 617 6665

Supervisor: Dr Desiree Varatharajullu Tel: 031 373 2533

Institutional Research Ethics administrator Tel: 031 373 2375

Complaints can be reported to the Director: Research and Postgraduate Support Dr L Linganiso on 031 373 2577 or researchdirector@dut.ac.za.

Appendix C: Informed Consent (English)

CONSENT

Full Title of the Study: Perceptions and experiences of elderly patients receiving Chiropractic care at a Chiropractic clinic in the Durban Metropolitan area

Names of Researcher/s: Holly Claire de Lange, **(**Btech: Chiropractic)

Statement of Agreement to Participate in the Research Study: Dr Desiree Varatharajullu, qualifications, (M Tech: Chiropractic)

- I hereby confirm that I have been informed by the researcher, _____ (name of researcher), 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.

_____	_____	_____	_____
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

Appendix D: Letter of Information and Informed Consent (isiZulu)

Incwadi yolwazi kanye nemvume

INCWADI YOLWAZI

Isihloko socwaningo: Imibono kanye nesipiliyoni zeziguli esezikhulile ezithola ukwelashwa ngendlela yakwa-Chiropractic emtholampilo we-Chiropractic endaweni ye-Metropolitan eThekwini.

Igama lomcwaningi: Holly Claire de Lange, (**B Tech**: Chiropractic)

Umphathi/ umsizi wocwaningo: Dkt. Desiree Varatharajullu (**M Tech**: Chiropractic)

Isethulo esifushane kanye nenjongo yocwaningo: lolu cwanigo luhlose ukuveza imibono kanye nesipiliyoni sabantu abakhulile abanayo mayelana nokwelashwa ngokwe-Chiropractic. Kune zinga eliphezulu lokuvama kwezifo eziphathelene nemisipha namathambo ebantwini asebekhulile futhi i-Chiropractic ivama ukuba indlela yokwelapha lezi zifo. Ulwazi oluzoqoqwa ngesikhathi socwaningo luhlose ekusizeni ekulapheni kangcono iziguli esezikhulie, ngalokhu sithemba ukuthuthukisa isipiliyoni esikhathini esizayo uma bethola ukwelashwa ngokwe-Chiropractic.

Ngiyakubingelela, ngiyethemba ukuthi lencwadi ikufica uphilile. Ngingumfundi owenza unyaka wesihlanu eNyuvesi Yezobuchwepheshe YaseThekwini lapho engenza khona iziqu zami ze-Masters kwi-Chiropractic. Ucwaningo uhlelo loku bheka noma lokuphenya ulwazi olusha olujwayelekile. Ngithanda ukumema ukuba ubambe iqhaza kucwaningo lwami oluhlose ukuzuza indlela engcono yokuqonda ukwelwashwa ngokwe-Chiropractic ebantwini asebekhulile, ngethemba lokuthuthukisa ikusasa lokwelashwa ngokwe-Chiropractic. Cela ukhululeke ukubuza noma imuphi kanye yonke imibuzo onayo nanoma ngesiphi isikhathi futhi ukuqondisisa kwakho kubalulekile kimi. Wamulekile ukudingida ngokubamba iqhaza kwakho kulolu cwaningo nanoma abangani kanye nomndeni futhi awuphoqiwe ukuzibophezela kulesisigaba. Lencwadi eyakho ukuthi uyigcine. Uma ungathanda ukubamba iqhaza ngingakuthokozela kakhulu.

Umhlahlandlela wenqubo: Ucwaningo lizobandakanya abantu abaneminyaka engama-60 nangaphezulu oseke bathola ukwelashwa ngaphambilini okungenani kanye ngendlela ye-Chiropractic. Uma uvuma ukubamba iqhaza kucwaningo, kuzobe sekudingeka ubambe iqhaza kwinhlolovo ezothatha isigamu sehora (imizuzu eyi-30) ezobe isiqoshwa ngokomoya. Inhlolovo izokwenzelwa ngasese emagumbini wase Nyuvesi YaseThekwini Yezobuchwepheshe, emtholampilo we-Chiropractic noma egumbini lezocwaningo kwi-Faculty yezempilo, noma ngokwezokuxhumana ngomoya kwi-Zoom okanye ngendlela ezohambisana nezidingo zakho esikhathini esizayo.

Ubucayi noma ubungozi kumbambiqhaza: abukho ubungozi noma ubucayi obuphathelene nocwaningo okungaba khona kumbambiqhaza.

Imbangela yokuhoxa kombambiqhaza kucwaningo: umbambiqhaza angahoxa kucwaningo nanoma ngasiphi isizathu, noma kwesiphi isigaba ngaphandle kobungozi.

Inzuzo: Ukwazi kangcono ngespiliyoni sabantu asebekhulile ekulashweni ngendlela ye-Chiropractic, lolu lwazi luzophinda livale igebe lapho ulwazi lushoda khona.

Isinxephezelo: Asikho isinxephezelo esizotholwa umbambiqhaza kulolu cwaningo.

Izindleko zocwaningo: azikho izindleko ezizobakhona ngokubamba iqhaza kwakho kulolu cwaningo.

Ubumfihlo: Lonke ulwazi olumayelana nocwaningo luzogcinwa luyimfihlo futhi luzosetshenziselwa izizathu zocwaningo kuphela.

Imiphumela: Imiphumela etholakele kulolu cwaningo izobe isisatshalaliswa ngokushicilelwa phansi.

Ubungozi obuphathelene nocwaningo: Akekho amathuba wokuthi uthole ukulimala ngesikhathi socwaningo njengoba kunenhlolovo kuphela.

Ukugcinwa kolwazi kanye nolwazi oluqhoshiwe: lonke ulwazi luzogcinwa kumnyango we-Chiropractic eNyuvesi YaseThekwini Yezobuchwepheshe kuze kube lucikelwa phansi emuva kweminyaka eyi-5.

Abantu ongaxhumana nabo uma kukhona izinkinga noma imibuzo:

Umcwaningi Omkhulu: Holly de Lange **Umakhalekhukhwini**: 083 617 6665

Umphathi: Dkt. Desiree Varatharajullu **Ucingo**: 031 373 2533

Umlawuli Wocwaningo Esikhungweni Ucingo: 031 373 2375

Izikhalazo zingabikwa kuMqondisi: Ucwaningo nokwesekwa kwabaneziqu Dkt. L Linganiso ku

031 373 2577 noma researchdirector@dut.ac.za.

INCWADI YEMVUME

Isihloko socwaningo: Imibono kanye nesipiliyoni zeziguli esezikhulile ezithola ukwelashwa ngendlela yakwa-Chiropractic emtholampilo we-Chiropractic endaweni ye-Metropolitan eThekwini

Igama lomcwaningi: Holly Claire de Lange, (**B. Tech**: Chiropractic)

Umphathi/ umsizi wocwaningo: Dkt. Desiree Varatharajullu (**M Tech**: Chiropractic)

Isitatimende sesivumelwano sokuzi bandakanya kucwaningo:

- Mina ngalokhu ngiyaqinisekisa ukuthi ngazisiwe umcwaningi, _____ (igama lomcwaningi), ngesimo, ukuziphatha, inzuzo kanye nobungozi yalolucwaningo – Inombolo yocwaningo: _____.
- Ngiphinde ngathola, ngafunda futhi ngaqondisisa ulwazi olubhalwe ngaphezulu (encwadini yolwazi yombambiqhaza) mayelana nocwaningo.
- Ngiyazi ukuthi imiphumela yocwaningo, okuhlanganisa imininingwane yami ephathelene nobulili bami, iminyaka, usuku lokuzalwa, iziqalo zamagama kanye nokuxilongwa kwami kuzocutshungulwa ngokufihlekile kucwaningo.
- Ekubukeni izidingo zocwaningo, ngiyavuma ukuthi ulwazi oluqoqiwe ngesikhathi kwenziwa ucwaningo ngucwaningi lungacutshungulwa ohlelweni lwe-khompyutha.
- Noma kwesiphi isigaba, ngaphandle kobandlululo, nginga hoxisa isivumelwano sami nokuzibandakanya kulolu cwaningo.
- Ngibe nethuba elanele lokubuza imibuzo futhi (ngokukhululeka kwami) ngaziqinisekisa ukuthi ngikulungele ukubamba iqhaza kucwaningo.
- Ngiyaqonda ukuthi ulwazi olusha oluthuthukisiwe ngesikhathi kwenziwa ucwaningo, olungaphathelana nokubamba iqhaza ngizokwazi ukufinyelela kulo.

_____	_____	_____	_____
Igama lombambiqhaza	Usuku	Isikhathi	Isiginisha/isithupha sokudla

Mina, _____ (igama lomcwaningi) ngiyaqinisekisa ukuthi umbambiqhaza wazisiwe ngokugcwele mayelana mesimo, nokuphatheka kanye nobungozi bocwaningo.

_____	_____	_____
Igama lomcwaningi	Usuku	Isiginisha
_____	_____	_____
Igama Lofakazi	Usuku	Isiginisha
_____	_____	_____
Igama lomnakekeli	Usuku	Isiginisha

Appendix E: Demographic Information

Date _____ Participant no: 

DEMOGRAPHIC DATA

Age _____

Gender _____

Presenting complaint _____

Appendix F: Covid-19 Screening for in Person Interviews

Date _____ Participant no: 

Patient Temperature _____

Have you been in contact with anyone who has tested positive for Covid-19 in the past 14 days? **Y/N**

Have you been tested for Covid-19 in the past 14 days? **Y/N**

Are you waiting for the results of a Covid-19 test? **Y/N/ N/A**

Do you have any of the following symptoms?

- Fever **Y/N**
- Cough **Y/N**
- Sore throat **Y/N**
- Fatigue **Y/N**
- Headaches **Y/N**
- Nausea **Y/N**
- Vomiting **Y/N**
- Loss of smell or taste **Y/N**

Appendix G: DUT CDC Gatekeepers Permission Letter

MEMORANDUM

To : Prof Adam
Chair: IREC

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

Date : 22.08.2022

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

Permission is hereby granted to:

Ms Holly de Lange (Student Number: 21702588)

Research title: "Perceptions and experiences of elderly patients receiving Chiropractic care in the Durban Metropolitan area."

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

Thank you for your time.

Kind regards

Head of Department: Chiropractic; Clinic Director: Chiropractic Day Clinic: Chiropractic

Cc: Mrs Linda Twiggs: Chiropractic Day Clinic
Dr D Varatharajullu: Supervisor

Appendix H: Ethical Approval

Institutional Research Ethics Committee
Research and Postgraduate Support Directorate
2nd Floor, Berwyn Court
Gate 1, Steve Biko Campus
Durban University of Technology

P O Box 1334, Durban, South Africa, 4001

Tel: 031 373 2375
Email: lavishad@dut.ac.za
http://www.dut.ac.za/research/institutional_research_ethics

www.dut.ac.za

29 September 2022

Ms H C de Lange
35 Park Lodge Gardens
369 Berea Road
Glenwood
Durban

Dear Ms de Lange

Perceptions and experiences of elderly patients receiving Chiropractic care in the Durban Metropolitan area
Ethics Clearance Number: IREC 045/22

The DUT-Institutional Research Ethics Committee acknowledges receipt of your notification regarding the piloting of your data collection tool.

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

In addition, the DUT-IREC acknowledges receipt of your gatekeeper permission letters.

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

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

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

Yours Sincerely

Prof J K Adam
Chairperson: DUT-IREC