

**THE KNOWLEDGE AND PERCEPTIONS OF PROVINCIAL  
AND NATIONAL HEALTH PORTFOLIO COMMITTEE  
MEMBERS OF SOUTH AFRICA REGARDING THE  
CHIROPRACTIC PROFESSION**


Mini-dissertation in partial compliance with the requirements for the Masters  
Degree in Technology: Chiropractic, in the Department of Chiropractic at the  
Durban University of Technology.

by

**Praveena Maharaj**

I, Praveena Maharaj, declare that this dissertation represents my own work, both  
in conception and execution.

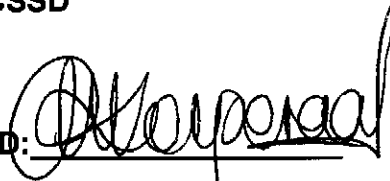
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## **DEDICATION**

I dedicate this study to all those chiropractic students who dared to be different and define their lives according to their own high standards.

## **ACKNOWLEDGEMENTS**

My final year of study was team-work all the way. It would not have been possible if not for the following people:

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## **ABSTRACT**

**Aim:** The aim of this study was to establish the relationship between demographics of honourable members, their level of knowledge of and the perceptions of the chiropractic profession.

**Methods:** A questionnaire-based survey was administered to 84 Health Portfolio Committee (HPC) members at their meetings as requested through the respective committee secretaries. The questionnaire was administered in a semi supervised fashion at the set meetings.

**Results:** A response rate of 64% revealed that the mean knowledge score of 31.4% was relatively low. The mean perceptions score was 38.2%, indicating an overall negative perception of chiropractic amongst this population. Experience did indeed influence perceptions significantly ( $p=0.035$ ) with those having consulted a chiropractor before having higher perceptions scores.

No significant correlations existed between knowledge and perception and the demographic variables with the exception of ethnicity. This was enhanced by a weak statistically significant positive correlation between knowledge and perceptions score ( $r=0.394$ ,  $p=0.004$ ). The weak strength of the correlation shows that in general, as knowledge increased so did perceptions.

**Conclusion:** Generally knowledge and perception of chiropractic was low in this population and seems to be influenced principally by the ethnicity / culture within which the honourable members operate (whether it is within the medical paradigm or their individual cultural orientation). Thus increasing the awareness and knowledge of chiropractic in this group may lead to more positive knowledge scores and perception levels.

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## **DEFINITIONS**

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## **Chiropractic Profession**

The World Federation of Chiropractic (2001) describes the chiropractic profession as a health profession concerned with the diagnosis, treatment and prevention of mechanical disorders of the musculoskeletal system, and their effects on the functioning of the nervous system and health in general. There is an emphasis on manual treatments including spinal adjustment and other joint and soft-tissue manipulation.

The Chiropractic Association of South Africa (CASA) (2009) adds that the profession is considered a Complimentary Alternative Medicine (CAM) therapy adopting a natural, hands-on, drug free and surgery free approach to health. It works on the premise that good health is partially dependent on the normal functioning of the spine and nervous system.

From a legislative position, the Allied Health Professions Council of South Africa (2007) describes chiropractors as health care practitioners who essentially rely upon non-invasive treatment methods and will refer patients to medical practitioners should medication or surgery be indicated. There is an emphasis on manual treatments such as spinal adjustment and other joint and soft-tissue manipulation. This approach is further supplemented by the promotion of healthy lifestyles such as the avoidance of smoking and excess stress, proper diet and exercise.

## **Honourable members**

This refers to the honourable members of the nine provincial Health Portfolio Committees (HPCs) and the national HPC of the Republic of South Africa who are (honourable) members of parliament.

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## **Perception**

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“The act or ability of comprehending by means of the senses or of the mind. It is the immediate or intuitive recognition or appreciation, as of moral, psychological, or aesthetic qualities” (Dictionary.com, 2009).

### **Primary Health Care**

The World Health Organization’s (2009) definition of primary health care is “essential health care made universally accessible to individuals and families in the community by means acceptable to them, through their full participation and at a cost that the community and country can afford. It forms an integral part both of the country's health system of which it is the nucleus and of the overall social and economic development of the community”.

### **Participants**

Refers to those people who participated in the Focus Group and Pilot Study of this research.

### **Respondents**

Refers to the honourable members who completed the final questionnaire of this research.

## **ABBREVIATIONS**

<b>HPC</b>	- Health Portfolio Committee
<b>SAA</b>	- South African Airways (SAA)
<b>KZN</b>	- KwaZulu-Natal (province)
<b>EC</b>	- Eastern Cape (province)

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## **Chapter 1**

### **INTRODUCTION**

#### **1.1 Introduction**

According to Chaffe (1997), perception is the process which takes place as a person selects, organises, and interprets information to form a meaningful picture of the world around themselves. Jamison (1995) proposes that the honourable members of the Health Portfolio Committees (HPCs), much like the general public, tend to regard chiropractors as specialists of musculoskeletal disorders especially low back pain.

This assertion seems to be supported by the findings of a number of studies exploring the relationship between the chiropractic profession, the public, and other health care professionals within South Africa where it has been found that the level of knowledge and the perception of the chiropractic profession was low and generally centred around chiropractors being back specialists (Rubens, 1996; Dyer, 1997; Hunter, 2004; Louw, 2005; van As, 2005; Kew, 2006; Pillay, 2006; Rattan, 2007; Talmage, 2007; Butt, 2008; Cloete, 2008; Heslop, 2008; Maharaj, 2008; Naidoo, 2008; Palmer, 2008).

However, as South Africa is a nation varying in culture, health care delivery schemes and education (Hupkes, 1990) there is a possibility that the above research results are not applicable to the honourable members, and that they may indeed possess a reasonably high level of knowledge and perceptions that differ to that of the general public with regards the chiropractic profession.

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This assumption could be further enhanced or detracted from factors associated with honourable members as their circumstances are different to that of the general local population or medical professionals who are not affiliated with government. These factors, according to Hayes (1994), Robbins (1996) and Berg and Theron (1999) may be attributed to the perceiver, the perceived object or the environment/situation in which the object perceived. These are outlined in Table 1.1 below:

Table 1.1: Factors Affecting Perception

<b><u>Factors in the perceiver:</u></b> e.g. Honourable member <ul style="list-style-type: none"><li>• Personal demographics.</li><li>• Values and attitudes.</li><li>• Exposure and Experience.</li><li>• Expectations.</li><li>• Culture.</li><li>• Education in South Africa.</li><li>• Consumer preference creating demand barriers.</li></ul>	<b><u>Factors in the environment:</u></b> e.g. HPC <ul style="list-style-type: none"><li>• Time.</li><li>• Work setting.</li><li>• Social setting.</li></ul>
<b><u>Factors in the perceived object:</u></b> e.g. Chiropractic <ul style="list-style-type: none"><li>• History.</li><li>• Proximity.</li><li>• Accessibility barriers.</li><li>• Background.</li><li>• Motion.</li><li>• Size.</li><li>• Novelty.</li><li>• Sound.</li><li>• Chiropractic Education in South Africa.</li><li>• Chiropractors self imposed barriers to primary care provider roles.</li></ul>	

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Based on the factors listed above, it can be seen that there are many enhancers or detractors to which the honourable members are exposed to the chiropractic profession (Langworthy and Smink, 2000).

Therefore the aim of this study was to assess the knowledge and perceptions of honourable members regarding the chiropractic profession in South Africa.

### 1.2 Aim and objectives of this study

The **aim** of this study was to establish the level of knowledge and the perceptions of honourable members regarding the chiropractic profession [i.e. The HPCs of each of the nine provinces and the National HPC of South Africa (herein referred to as respondents)].

The **first objective** of this study was to document the demographic data of the respondents.

The **second objective** was to determine the level of knowledge of the respondents about the chiropractic profession.

#### **Null Hypothesis one:**

The level of knowledge of the respondents will be similar to the literature norms that have been identified.

The **third objective** was to determine the perception of the respondents of the chiropractic profession.

#### **Null Hypothesis two:**

The perception of the respondents will be similar to the literature norms that have previously been identified.

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The ***fourth objective*** was to determine any associations between the factors influencing knowledge and perception as well as the demographic factors in order to establish the strength of these relationships.

### **Null Hypothesis three:**

No associations existed between the factors influencing knowledge, perception and / or demographic factors.

### **1.3 Rationale for this study**

The honourable members, being members of parliament, are the only people endowed with the power to make legislative changes and who perform the regional / provincial / national oversight role to improve primary health care in South Africa (Equity Gauge, 2000). It is therefore imperative to establish the perception and knowledge that this group has of the chiropractic profession to determine the effect it has on the promotion and integration of the chiropractic profession in the primary health care system in South Africa. This can however not be addressed without first assessing the perceptions and knowledge of the respondents, to reflect the aim of this research study.

### **1.4 Limitations of this study**

For the purpose of this study, the researcher requested and assumed that all the data given by the respondents when completing the research questionnaire (Appendix B2) were open and honest and thus reflected their current knowledge and perceptions accurately at the time of questionnaire completion.

### 1.5 Conclusion

The preceding chapter has highlighted the areas of interest in this study; presented the aim and objectives and the rationale for this study. It also points out the inherent limitations of this study. Chapter two of this study will discuss the literature related to this study. This will be followed by chapter three, which will outline the materials and methods utilized to structure the design of the research study. Chapter four presents the results and discussion of the results. Chapter five highlights the conclusions and suggests recommendations based on the results of this study. For completeness the references and the relevant appendices are attached at the end of this dissertation.

### **Chapter 2**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter discusses the literature available on the knowledge and perceptions of provincial and national Health Portfolio Committee members of South Africa regarding the chiropractic profession.

#### **2.2. The Concept of Perception**

Perception is the act or faculty of apprehending or awareness by means of the senses or of the mind; cognition; understanding (Dictionary.com, 2009). It is the process which takes place as a person selects, organises, and interprets information to form a meaningful picture of the world (Chaffe, 1997). It is explained as the process of organising sensory information gathered by the five different senses in the body (taste, smell, sight, hearing and touch), processing this received information and adding meaning to it to form an object. In this regard, it is only when a person finds that his/her perception of the same object differs from the perceptions of others, that they are forced to examine the manner in which they select, organize and interpret the events in the world around them (Chaffe, 1997).

Constructive theories, trying to explain perceptual development, explain that perception involves the integration of several sources of information and could be affected by cognitive factors and experience (Coren and Ward, 1989). Thus constructivist theorists have emphasised the importance of “Top-down” and

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“Bottom-up” processes in the development of perceptions (Hayes, 1994; Eysenck and Keane, 1996). In essence “Bottom-up” processes are affected by external input from available stimuli (the **environment** e.g. HPC and the **object** being perceived e.g. Chiropractic), whereas “Top-down” processing is affected by a person’s prior knowledge and expectations (Hayes, 1994; Myers, 1996; Atkinson, Atkinson, Smith, Bem and Nolen-Hoeksema, 2000). Eysenck and Keane (1996) stated that perception would be influenced, to some extent, by both “Bottom-up” and “Top-down” processes, as these occur simultaneously. This theoretical approach was emphasised by Neisser’s perception cycle, which demonstrated that perceptual development was an ever changing active procedure which required both the “Top-down” and “Bottom-up” processes to provide comprehensive perceptual information (Coren and Ward, 1989; Hayes, 1994; Eysenck and Keane 1996; Atkinson *et al.*, 2000).

### 2.2.1 Factors Affecting Perception

Although the constructive theories have been used to explain perception, it must be noted that the created perception may differ from the reality used to create the perception. Information may therefore be misinterpreted, leading to premature or incorrect conclusions about objects and/or events (Eysenck and Keane, 1996). This supports the suggestion by Robbins (1996) and Berg and Theron (1999) that perception is subjective in nature. In this context, the subjectivity of perception can be linked to many factors which according to Robbins (1996) and Berg and Theron (1999) may be attributed to the perceiver, the environment/situation in which the object is being perceived, or the object being perceived. These are outlined in Table 2.1 below (Hayes, 1994; Robbins, 1996; Berg and Theron, 1999) in the context of the research study:

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Table 2.1: Factors Affecting Perception

<b><u>Factors in the perceiver:</u></b> e.g. Honourable member <ul style="list-style-type: none"><li>• Personal demographics.</li><li>• Values and attitudes.</li><li>• Exposure and Experience.</li><li>• Expectations.</li><li>• Culture.</li><li>• Education in South Africa.</li><li>• Consumer preference creating demand barriers.</li></ul>	<b><u>Factors in the environment:</u></b> e.g. HPC <ul style="list-style-type: none"><li>• Time.</li><li>• Work setting.</li><li>• Social setting.</li></ul>
<b><u>Factors in the perceived object:</u></b> e.g. Chiropractic <ul style="list-style-type: none"><li>• History.</li><li>• Proximity.</li><li>• Accessibility barriers.</li><li>• Background.</li><li>• Motion.</li><li>• Size.</li><li>• Novelty.</li><li>• Sound.</li><li>• Chiropractic Education in South Africa.</li><li>• Chiropractors self imposed barriers to primary care provider roles.</li></ul>	

The above factors have been further split into those which are internal to the perceiver (factors within the perceiver), and those which are external to the perceiver (factors in the environment and factors in the perceived object).

For the purposes of this study, the “perceiver” is the honourable member/respondent, the “perceived object” is the chiropractic profession, and the “environment” is the work/social environment of the respondents working within the HPCs.

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### **2.2.1.1 Internal Factors: Factors in the Perceiver Affecting Perception**

According to Hayes (1994), Robbins (1996) and Berg and Theron (1999), factors in the perceiver affecting perception are referred to on individual perceptual set. This also reflects the “Top-down” theory of personal development (Coren and Ward, 1989; Hayes, 1994 and Eysenck and Keane, 1996) which includes the following:

- Personal Demographics.
- Values and Attitudes.
- Exposure and Experience.
- Expectations.
- Culture.
- Education in South Africa.
- Consumer preference creating demand barriers.

#### **2.2.1.1.1 Personal Demographics**

The personal demographics factors such as a person’s ethnicity, gender, age, level of education, employment and language influences their perception about a subject. These factors are described on the next page.

### **2.2.1.1.1.1 Ethnicity**

According to Dreyer (2004), different health care systems have traditionally been associated with particular cultures which may limit acceptance to health care practices outside of that culture (Postman *et al.*, 1948). This is supported by Philbin, Lozada, Zuniga, Mantsios, Case, Magis-Rodriguez, Latkin and Strathdee, (2008) who indicated that culture and its surrounding political environment has a strong influence on the manner in which members of a particular group react to different constructs. In support of this concept, Myburgh and Mouton (2007) indicated that chiropractic is underappreciated by the Black population who don't have any notion of what chiropractic is.

### **2.2.1.1.1.2 Gender**

It has been found that women are more likely to utilise complementary alternative therapies than men (MacLennan and Wilson, 1996; Durant, Verhoef, Conway and Sauve, 2001; National Centre for Complementary and Alternative Medicine, 2004; Tatalias, 2006). This may be related to the fact that women are normally the care-givers of children within the family setting and literature indicates that those caring for pediatrics have a tendency to make use of complementary alternative care more frequently (than those that don't who don't have children) utilizing more non-invasive, milder and side-effect free treatment options for their pediatrics (Crawford, Cincotta, Lim and Powell, 2006; Hughes and Wingard, 2006; Lim, Cranswick, Skull and South, 2006; Smith *et al.*, 2006; Wilson, Dowson and Mangin, 2007; Low, Murray, O'Mahony and O'B Hourihane, 2008).

### **2.2.1.1.1.3 Age**

It was found in the literature that older patients were more likely to utilise complementary alternative therapies e.g. chiropractic as compared to their younger counterparts (Kayne, Beattie and Reeves, 1999; Menniti-Ippolito, Gargiulo, Bologna, Forcella and Raschetti, 2002; Reid, 2002; Tatalias, 2006). Reasons for this may include increased likelihood of exposure over the years to alternative health care methods, increased knowledge of the benefits as well as risks of medical care, disappointments with previous allopathic care received as well as the need for having to deal and live with more chronic conditions with increased age (Kayne, Beattie and Reeves, 1999; Menniti-Ippolito *et al.*, 2002; Tatalias, 2006).

### **2.2.1.1.1.4 Level of education**

Tertiary education has been associated with the higher use of traditional and CAM (MacLennan and Wilson, 1996; Astin, 1998; Menniti-Ippolito *et al.*, 2002; Reid, 2002; Haertela and Volgera, 2004; National Center for Complementary and Alternative Medicine, 2004; Tatalias, 2006), for a number of reasons that include increased awareness of options available in health care; increased ability to pay out of their pocket for health care options that are not included in public health care systems; increased ability to understand the efficacy and effectiveness of various treatment options as a result of access to information (e.g. internet, libraries, second opinions) and increased understanding of the long term implications of disease processes as well as treatment procedures.

### **2.2.1.1.1.5 Employment**

Research has found that being employed is linked to increased use of CAM therapy (MacLennan and Wilson, 1996; Astin, 1998; Thomas and Coleman, 2004), for much the same reasons as indicated in education above (2.2.1.1.1.4) such as an increased ability to pay for health care that is excluded in public health care systems and an increased ability to understand the efficacy and effectiveness of treatment options as a result of access to more information (Astin, 1998; Menniti-Ippolito *et al.*, 2002; Reid, 2002; Haertela and Volgera, 2004; National Center for Complementary and Alternative Medicine, 2004; Thomas and Coleman, 2004).

### **2.2.1.1.1.6 Language spoken**

Language has several permutations; these are principally vested in the fact that most tertiary training requires English as the medium of instruction (Libhaber and Greene, 2006). This implies that non-English speaking people would have greater difficulty in obtaining university entrance and completing tertiary education which would affect their opportunities in obtaining more highly qualified careers. This in turn would restrict their financial earnings which ultimately influences their choices in health care options and therefore access to CAM care as a whole.

Further to this, non-English speakers would have difficulty accessing information published in English. An example of this would be the chiropractic profession which was developed principally in the Western world (United States of America and Canada) (Keating, Charlton, Grod, Perle, Sikorski and Winterstein, 2005) and therefore such colleges were found mostly within English speaking countries (Chiropractic Diplomatic Corps, 2007). Research indicates that the majority of literature related to chiropractic has been written in English. Therefore this

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excludes any reader not familiar with the English language and Philbin *et al.* (2008) also presupposes that the reader who reads chiropractic literature would be familiar with the cultural context in which the profession was developed and is able to fit the cultural mould that accompanies it.

### **2.2.1.1.1.7 Numbers of dependents**

It has been noted in the literature that having more dependents (principally children) increases a persons chance of exposure to complementary alternative health care professions such as chiropractic (Crawford *et al.*, 2006; Hughes and Wingard, 2006; Lim *et al.*, 2006; Smith *et al.*, 2006; Wilson *et al.*, 2007; Low *et al.*, 2008). In most cases it is an indication that their social status is elevated in that they are able to provide for increased numbers of dependants, thus supporting the financial and employment indicators (2.2.1.1.1.5) that increase the likelihood of exposure to CAM due to better access to financial and health care resources (Kayne, Beattie and Reeves, 1999; Thomas and Coleman, 2004). Also, fewer dependents may limit access to secondary information about chiropractic such as family/dependent interaction with or experience of chiropractic.

### 2.2.1.1.1.8 The possible effects of Personal Demographics on exposure to chiropractic

By assessing this broad outline of the respondents' demographic factors in terms of the Neiss classification (Hayes, 1994; Robbins, 1996; Berg and Theron, 1999), it is apparent that the following factors are detractors in terms of the respondents having a likelihood for exposure to the chiropractic profession:

- Ethnicity (2.2.1.1.1.1): Based on the fact that members of the HPC are elected on a party proportionate basis (Maharaj, 2009), it can be expected that most respondents will be affiliated with the ruling political party, the African National Congress (ANC), which reflects the majority of the Black South African population. It is therefore considered by Myburgh and Mouton (2007) that there may be a decreased likelihood of exposure of the respondents to chiropractic.
- Gender (2.2.1.1.1.2): Should the respondents be predominantly male, it is expected that they will have a lower level of knowledge of chiropractic as a result of their relative decreased likelihood of utilising complementary alternative therapies as compared to women (MacLennan and Wilson, 1996; National Centre for Complementary and Alternative Medicine, 2004; Tatalias, 2006). Women have a tendency to make use of CAM more frequently as they are more non-invasive and side-effect free treatment options for their pediatrics (Crawford *et al.*, 2006; Hughes and Wingard, 2006; Lim *et al.*, 2006; Smith *et al.*, 2006; Wilson *et al.*, 2007; Low *et al.*, 2008).
- Level of education (2.2.1.1.1.4): Should respondents be principally of allopathic origin, consideration must be made that the allopathic profession remains sceptical of chiropractic (Jamison, 1995 and Breen, Carrington, Collier and Vogel, 2000).

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- Decreased numbers of dependants (2.2.1.1.1.7): Should respondents have decreased number of dependents, a lower level of knowledge and therefore more negative perception of chiropractic is expected due to decreased chances of exposure to CAM therapies on a whole (Kayne, Beattie and Reeves, 1999; Thomas and Coleman, 2004) possibly due to limited access to secondary information about chiropractic such as family/dependent interaction with or experience of chiropractic.

To the contrary, the following enablers are present to expect a higher likelihood for exposure to the chiropractic profession:

- Gender (2.2.1.1.1.2): Should the respondents be predominantly female, it is expected that they will have a higher level of knowledge of chiropractic as a result of their relative increased likelihood of utilizing complementary alternative therapies (MacLennan and Wilson, 1996; National Centre for Complementary and Alternative Medicine, 2004; Tatalias, 2006).
- Higher level of education (2.2.1.1.1.4): It is expected that respondents have a higher tendency towards the informed use of chiropractic as a CAM as it is assumed that by serving on the HPC they are in possession of a higher education qualification related to the health field comprising a minimum of three years study. A higher education qualification may indicate respondents are exposed to and read more health-related literature which would increase their exposure to chiropractic literature, increasing their level of chiropractic knowledge and thus improving perception of the profession (MacLennan and Wilson, 1996; Astin, 1998; Menniti-Ippolito *et al.*, 2002; Reid, 2002; Haertela and Volgera, 2004; National Center for Complementary and Alternative Medicine, 2004; Tatalias, 2006; Maharaj, 2009).

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- Increased numbers of dependants (2.2.1.1.1.7): Should respondents have increased number of dependents, a higher level of knowledge and therefore more positive perception of chiropractic is expected (Kayne, Beattie and Reeves, 1999; Thomas and Coleman, 2004).
- Age (2.2.1.1.1.3): It would be expected that the respondents in this study have a higher chance of exposure to chiropractic as the more aged the population the more likely they are to utilise complementary alternative therapies (Kayne, Beattie and Reeves, 1999; Menniti-Ippolito *et al.*, 2002; Reid, 2002; Tatalias, 2006). This is supported by the fact that appointment within a political party, and hence a portfolio committee, is based on exposure and service to the relevant field which can only be achieved with many years of experience (Maharaj, 2009).
- Employment (2.2.1.1.1.5): Honourable members having full time employment within their respective health portfolio committees and therefore access to financial and health care resources should have increased levels of knowledge and thus more positive perceptions of chiropractic (Thomas and Coleman, 2004).
- Language spoken (2.2.1.1.1.6): The language of communication within the HPC, although they are predominantly affiliated with the ANC, as is with all South African politics, is primarily English (SouthAfrica.info, 2008). Thus it is expected that if the respondents in this study are predominantly able to speak English, their level of knowledge would be higher, positively influencing their perceptions of chiropractic.

However this is stated with caution as the respondents have the modifying effect of culture (Philbin *et al.*, 2008) which may limit access to health care practices outside of their cultural practices (Dreyer, 2004). Thus the next section will present the values and attitudes and their influence on personal exposure to complementary alternative care.

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### 2.2.1.1.2 Values and attitudes

According to Postman, Bruner and McGinnies, (1948), values and attitudes play a major role in influencing perception. This was demonstrated when people took longer to identify sexual or other taboo words than they did to identify neutral words. This demonstrates how the participants' values and attitudes towards different subject matters influences their responses to them, based on the cultural framework within which they have grown up and to which they were adapted and accustomed.

Furthermore according to Dreyer (2004), social considerations in terms of health care differences that have traditionally been associated with particular cultures may limit access to health care practices outside of that culture (Postman *et al.*, 1948; Philbin *et al.*, 2008). It is therefore expected that there may be a decreased likelihood of exposure to chiropractic, if their cultural background does not enable or facilitate interaction with the profession. This mirrors the fact that it is estimated that there is an under-appreciation of chiropractic within the Black South African community (Myburgh and Mouton, 2007), based on their cultural upbringing which does not facilitate interaction with a predominantly Western form of health care. This is supported generally in the literature by Philbin *et al.*, (2008) who indicated that culture and the resultant political environment based on that culture has a strong influence on the manner in which members of a particular group react to different constructs.

In the case of this research, the respondent's values and attitudes towards healthcare and complimentary alternative medicine in particular, would have influenced their responses to the questions proposed in the research questionnaire about chiropractic.

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It must also be stated that the respondents could have been prone to a “Hawthorne effect” (Draper, 2005), in that the researcher was a chiropractic Masters student and respondents may have wanted to please the researcher by giving the “correct” or appropriate responses they perceived the researcher to want.

### **2.2.1.1.3 Exposure and Experience**

Depending on the regions within South Africa from which the respondents come, geographic access plays a role in being aware of the number of practicing chiropractors within those regions, knowledge acquisition (Ernst and White, 2000; Lewith, Owen and Stephens, 2001; Bodeker, 2001; McFarland, Bigelow, Zani, Newson and Kaplan, 2002; Bodeker and Kronenberg, 2002; Wojcicowski, Johnson and Gobe, 2006; Hughes and Wingard, 2006).

According to Rattan (2007) and Talmage (2007) knowledge and perception will also be influenced by previous consultation with a chiropractor and whether or not they were satisfied with the treatment received from the chiropractor since chiropractic patients generally know a little more about chiropractic than non-patients do. This personal exposure as well as exposure through someone else’s experience, may thus influence perception towards chiropractic. This is supported by Brussee, Assendelft and Breen (2001), who showed that a great deal of General Practitioners’ (GP’s) information about chiropractic came from patients who had been treated by chiropractors, and that an important factor influencing general practitioners’ opinions and perceptions about chiropractic appeared to be their patients’ experiences at chiropractors’ practices.

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Exposure to chiropractic may be further limited or enhanced due to the interaction between chiropractic and other health care professions (Dreyer, 2004; Jamison, 1995). Studies have highlighted that this interaction may be a negative interaction in that there has been a history of distrust between allopathic health care professions and the chiropractic profession (Keating, 2005; Coulter, 1992; and Wardwell, 1994).

Honourable members are part of the middle and upper income earning groups, have therefore increased access to chiropractors who mostly operate in the private sector in South Africa. In contrast the general public may have reduced exposure to chiropractic treatment because studies have indicated that most South Africans cannot afford chiropractic treatment therefore restricting access and limiting exposure to chiropractic (Chiropractic Association of South Africa, 2008).

### **2.2.1.1.4 Expectation**

According to Berg and Theron (1999), our expectations can also influence or distort our perceptions, since their research has shown that people are always more inclined to see what they expect to see due to their belief systems.

There are several underlying features that may contribute to the expectation and congruency between the expectation and outcome achieved:

- Was the experience congruent with the knowledge that they had of the profession at the time of the experience? (Gamble and Gamble, 1998; May, 2000; Talmage, 2007).
- Was the experience of having attended the chiropractic consultation congruent with the expectations of the respondent? (Sigrell, 2002; Talmage, 2007).

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- Was the experience of having attended the chiropractic consultation a good, mediocre or bad experience as perceived by the respondent? (Gamble and Gamble, 1998; Haneline, 2006; Talmage, 2007).

It was found that many patients with back pain especially, would be willing to try specific CAM therapies, especially if they thought them to be very useful (Sherman, Cherkin, Connelly, Erro, Savetsky, Dais and Eisenberg, 2004). As a result an increasing number of Americans each year are seeking chiropractic care for their back problems (Eisenberg, Davis, Ettner, Appel, Wilkey, Van Rompai and Kessler, 1998). Therefore it would seem that people with high expectations of the usefulness of chiropractic would also have a high knowledge of chiropractic (Louw, 2005).

Honourable members' expectation of the usefulness of complementary alternative medicines, including chiropractic, may therefore be dependant on their level of knowledge of the profession and thus their expectation. It should also be considered that respondents may be predominantly trained only within those professions classified within the allopathic medicine model and hierarchy (Hupkes, 1990; World Health Organisation, 2008) to the exclusion of complementary alternative and traditional therapies. This resultant isolation would serve as a detractor of knowledge and thus perception, reducing expectations of chiropractic. This reduction may therefore be directly related to the culture of medicine and not just to the ethnicity or gender of the individual respondent (Hayes, 1994; Myers, 1996; Atkinson *et al.*, 2000).

### 2.2.1.1.5 Culture

Culture can be defined as the customary beliefs or social forms of racial, religious or social groups (Oxford Advanced Learner Dictionary, 2002). Since culture is something that is instilled within the individual from birth, it is a major influence on their view of the world around them, including health related issues.

According to Dreyer (2004), social considerations in terms of health care differences that have traditionally been associated with particular cultures may also limit access to health care practices outside of that culture (Dreyer, 2004).

This analogy extends to the paradigm within which health care professionals develop. For example, the medical paradigm of thinking allows for the development of particular preconceived ideas on health care, disease care and wellness care (Coulter, 1992 and Wardwell, 1994), which may in turn influence the individuals knowledge and thus also perception of other aspects of health care and general living.

It is therefore of interest to note that the Department of Health in South Africa, estimates that close to 80% of South Africans consult traditional healers as opposed to allopathic doctors (About South Africa, 2007). This number would incorporate the honourable members from the HPC, who form part of the majority Black South African population. Limited respondent consultations with chiropractors, as this practice does not fall within the ambit of traditional healing, may result in a decrease of their level of knowledge of chiropractic and potentially create more negative perceptions of the profession.

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### 2.2.1.1.6 Chiropractic education in South Africa

Before 1989 those interested in studying chiropractic had to enrol in college's overseas (Brantingham and Snyder, 1999). Only in 1989 were the first chiropractic learners accepted into the then Technikon Natal (Till, 1997), now known as the Durban University of Technology. The chiropractic course is only also offered at the University of Johannesburg (Chiropractic Association of South Africa, 2008). This has allowed just twenty years for the chiropractic profession to establish itself against mainstream medicine as an alternative health profession in South Africa. Honourable members may be of the perception that chiropractic, being studied outside of formal medical colleges, is a sign of the profession's non-conformity to medicine principles, resulting in a more negative perception of chiropractic.

Furthermore it must also be considered that the chiropractic programmes are not taught at medical schools which implies that there is no common base for the development of relationships between medical practices. This is often related to the fact that the discourses in which the students are taught varies in different environments (Libhaber and Greene, 2006; Breen, *et al.* 2000), resulting in a lack of knowledge and therefore understanding of chiropractic.

Also, there exists a School of Allied Health Sciences at the University of the Free State, as described in the institutions' website (University of Free State, 2009), which, however, does not offer the chiropractic course. Websites of other institutions such as those of the University of Cape Town and University of KwaZulu-Natal indicate only "Health Sciences" or "Medical sciences" (University of Cape Town Academic Department, 2009; University of KwaZulu-Natal Academic Department, 2009). If the respondents are trained principally in health sciences or nursing (within the medical paradigm), it stands to reason that within that domain they could identify all medical sciences and by default perceive

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chiropractic as standing outside of that paradigm; identifying a chiropractic association with the “Allied Health Sciences” and possibly the University of Free State.

Similar knowledge and perception based studies have found a lack of knowledge (Rubens, 1996; Van As, 2005; Kew, 2006; Butt, 2008; Heslop, 2008; Naidoo, 2008) where the majority of neurologists, neurosurgeons and orthopedic surgeons, school careers guidance councillors, personal trainers, rugby coaches, paediatricians and biokineticists were not well informed about the chiropractic course in South Africa in order to reliably identify the correct qualification of a chiropractor. Similar findings exist with the WFC where results concluded that there is a limited public awareness regarding the education of chiropractors (WFC, 2005).

### **2.2.1.1.7 Consumer preference creating demand barriers**

Consumer preference is a primary driving force in the demand for chiropractic care and the potential for chiropractors to serve in primary care roles (Caplan and Associates, 1994; Gaumer, Koren and Gemmen, 2002).

According to Blydenburg and Freedman (1989) and Jamison (1995), a significant segment of the public in Australia and America prefers chiropractic treatment to medical care for lower back pain. This perception does not reflect the needs of the general South African population, whose experiences with health care may include traditional healers, physiotherapists and other members of the health care sector (Hupkes, 1990) who may be perceived to also address issues of lower back pain and with whom the person may feel more at ease. This would limit their exposure to the chiropractic profession.

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In addition, according to Sanchez (1991), gaps in the public knowledge have translated into non-utilization of chiropractic services. In other words, the more unclear public understanding of what the chiropractic professions' scope of treatment is, the more unlikely they are to identify a condition as one that can be treated by chiropractors (Sanchez, 1991).

Even though research has found that chiropractic is a popular health care option in many countries outside of South Africa, the medical profession remains sceptical of this health profession (Coulter, 1992; Jamison, 1995 and Wardwell, 1994). Many GP's are more comfortable referring patients to physiotherapists because they feel they have a better understanding and possibly experience of physiotherapy (Breen, *et al.* 2000).

Therefore, the expectations of perceptions after reviewing factors affecting the perceiver are that the respondents should have an above average knowledge and thus a good perception of the chiropractic profession, based on the fact that there are more factors that enable the possibility of their exposure to the chiropractic profession than those which detract them from exposure (Blydenburg and Freedman 1988; Jamison, 1995).

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### **2.2.1.2 External Factors: Factors in the Environment Affecting Perception**

Robbins (1996) asserts that the environment in which people see objects or events taking place is very important, because various elements within their environment can influence their perceptions. The environment refers not only to the work and social setting that the individual participant (honourable member) finds him/herself in (legislature or parliament setting), but also refers to the moment in time. These factors are described below:

#### **2.2.1.2.1 Time**

According to Berg and Theron (1999), human behaviour can seldom be interpreted without considering the context in which it occurs. Similarly, the time at which an object (in this case the chiropractic profession) is considered is also important i.e. a respondent consulting with a chiropractor a day before this study conduction as compared to never experiencing such a consultation, is likely to influence his/her perception of chiropractors in varying degrees.

#### **2.2.1.2.2 Work setting: The Health Portfolio Committee**

##### **2.2.1.2.2.1 Structure**

As in all legislatures, political parties represented in a specific provincial legislature nominate members on the basis of necessary expertise, experience or interest to serve on specific portfolio committees, such as the HPC, on a party proportional basis i.e. bigger parties enjoy greater representation in the committee (Maharaj, 2009).

### **2.2.1.2.2.2 Roles and functions of the Health Portfolio Committee**

The honourable members, being members of parliament, are the only people endowed with the power to make legislative changes and who perform the regional/provincial/national oversight role to improve primary health care in South Africa (Equity Gauge, 2000).

According to Maharaj (2009), a member of the KwaZulu-Natal provincial legislature, the provincial HPC has an oversight function over the provincial Department of Health and all health related matters. As part of their function, the HPC convenes public hearings in order to promote public participation in the formulation or amendments of laws in order to improve the quality of health care in the respective provinces. Members of the public as well as health practitioners and even health-related institutions have the right to approach honourable members of the HPC to address their problems and concerns. As part of the process and procedure, various health interest groups request in writing a meeting with the HPC to directly raise critical issues. In addition they have the competency to visit and make in-loco inspections of health care institutions on a regular basis.

At every HPC meeting the provincial Member of Executive Council (MEC) of Health as well as the leading officials of the provincial Department of Health can be questioned in respect of any or all aspects of their work. Also, the budget of a provincial Health Department must be interrogated and passed by the provincial HPC before it is submitted to the provincial legislature for debate and approval (Maharaj, 2009).

### **2.2.1.2.2.3 Duration of time served on HPC and involvement with health care oversight**

Presumably, the longer the respondents have spent serving the HPC, the wider their exposure to the various health professions which fall within the domain of the Department of Health in South Africa (viz. Health Professions Council, Allied Health Professions Council and Traditional Healers' Council Professions).

### **2.2.1.2.2.4 HPC member coverage by a medical aid scheme**

Just 18% of the general population are members of medical aid schemes (About South Africa, 2007). There are currently about 200 Medical Aid Schemes, most of which (approximately 98 %) cover chiropractic care in part or in total, depending on the extent of coverage of the individual's payment plan (Chiropractic Association of South Africa, 2008). In line with the requirements of the position they hold in legislature, the majority are members of Parmed medical aid scheme, an exclusive medical aid scheme for members of parliament and legislature (Maharaj, 2009).

### **2.2.1.2.2.5 HPC knowledge for operational purposes**

According to Maharaj (2009), honourable members have access to all documents of the Health Departments both provincially and nationally. They receive advice, information and guidance from top officials of the health care sector who are/were eminent medical practitioners, as well as honourable members of the party to which they belong.

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They also have at their disposal, information regarding their portfolio from electronic and print media such as radio, television, newspapers, magazines, and other publications and documentations relating to health (Maharaj, 2009). Thus the amount of reading of chiropractic and other complementary alternative health profession-based medical journals could greatly influence the level of knowledge and therefore perception of chiropractic.

Honourable members are also invited to all important health conferences, seminars, workshops and meetings related to health care matters. They therefore also enjoy the opportunity of interacting with members of the Health Portfolio Committees of other provincial legislatures, as well as with honourable members of the Health Portfolio Committee at National level and health entities of the National Council of Provinces (NCOP). The Portfolio Committee also has the advantage of inviting or engaging with any health interest group or experts in the province, country or the world. Honourable members of the HPC regularly visit foreign countries to interact with relevant government members, officials and practitioners in order to gain new insights and raise the level of health care in South Africa.

They have access to resources like the internet and the highly equipped Library and Resource Centre as well as the provincial researcher, which is provided for each of the nine provincial legislatures (Maharaj, 2009).

Research units are driven by the HPC or elected honourable members/task teams who look at defined areas of health and programme development for the health care system within the country (Hupkes, 1990; World Health Organisation, 2008).

### 2.2.1.2.2.6 Primary focus of mandate on HPC

According to Philbin *et al.* (2008), the predetermined primary health programme structures are governed with little leeway for the respondents to work outside of the paradigm within which they function, possibly resulting in decreased exposure to CAM and traditional healing professions.

In this light, the determination of alternate forms of receiving information regarding chiropractic and other CAM professions is important to establish the amount of secondary information received i.e. first hand experience by friends, family members, children, colleagues and doctors and promotional material, as opposed to official channels of information within in HPC.

Also, advances in medical technology in performing their mandate as part of the HPC is important for the chiropractic profession if it utilises technologies that advance with time (e.g. imaging, blood testing). However, as a profession where the emphasis lies in hand-on treatment (cheiro = hand; prakticos = practice/art) (Collins Dictionary and the Thesaurus, 2009), chiropractic may fall to the bottom of their priority list as techniques adopted by chiropractors are rarely technologically based.

### **2.2.1.2.3 Social setting**

#### **2.2.1.2.3.1 Socio-economic conditions prevalent in South Africa, with respect to the general population and hence honourable members**

As a researcher, an understanding of this factor is important as the socioeconomic circumstances surrounding health care in South Africa (Hupkes, 1990) could influence the knowledge and perceptions of honourable members towards chiropractic (Neiss Classification) (Hayes, 1994; Robbins, 1996; Berg and Theron, 1999).

South Africa's health system consists of a large public sector and a smaller but fast-growing private sector (About South Africa, 2007). Health care varies from basic primary health care, offered free by the state, to highly specialized technological health services available in the private sector for those who can afford it (About South Africa, 2007). Since most chiropractors are in private practice in South Africa (Chiropractic Association of South Africa, 2008), chiropractic care is unaffordable to the majority of the population of South Africa. Honourable members, however, being of more middle to higher income earners are therefore presumed as having more exposure to chiropractic and therefore should possess a higher level of knowledge of the profession as opposed to the general population.

Also, the private sector caters more for middle and high income earners of which 18% are members of medical schemes (About South Africa, 2007). There are currently about 200 Medical Aid Schemes, most of which (98%) cover chiropractic care in part or in whole, depending on the extent of coverage of the member's payment plan (Chiropractic Association of South Africa, 2008).

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However, high levels of poverty (71 % in rural areas and 50 % overall) and unemployment (at least 38 %) make it difficult for most people to belong to a medical aid scheme or pay for health services in South Africa (About South Africa, 2007). The 82% majority of the South African population don't have medical aid therefore a large number of people have limited exposure to chiropractic due to affordability issues (Rattan, 2007).

Since 1994, chiropractic care has been covered by Workman's Compensation also known as Compensation for Occupational Injury and Disease (COIDS). This translates that any injury which occurs whilst on work duty may be treated by a chiropractor, without referral from another physician. All costs including X-rays, if necessary, are reimbursed by COIDS (Chiropractic Association of South Africa, 2009). This allows for more awareness of chiropractic among employed people of the public, and this awareness can spread to many other people including honourable members, thus enhancing their level of knowledge of chiropractic and their perceptions of the profession.

Ethnicity (2.2.1.1.1.1) is associated with consistent patterns of health service use and health outcomes, with majority groups frequently experiencing a substantial disadvantage. Noting the substantial economic differences between various ethnic groups, income and health insurance coverage are frequently cited as potential explanations for these disparities (Van As, 2005). Previously disadvantaged individuals were, and may still not be fully exposed to chiropractic, therefore their knowledge and perception of chiropractic may be clouded due to the previous economic status. This mirrors the fact that chiropractic is underappreciated by those within the Black population who don't have any notion of what chiropractic is (Myburgh and Mouton, 2007).

### 2.2.1.2.3.2 Geographic barriers

During the past 10 years, numerous studies have reported the increasing use of CAM therapies, including chiropractic, worldwide (Ernst and White, 2000; Bodeker, 2001; Lewith *et al.*, 2001; Bodeker and Kronenberg, 2002; McFarland *et al.*, 2002; Hughes and Wingard, 2006; Wojcicowski *et al.*, 2006).

The Allied Health Professions Council of South Africa (2009) stated that there are about 400 practicing chiropractors in South Africa and an estimated 2200 chiropractors are needed in the country. With so few practicing chiropractors in a population of over 45 million people, there is approximately one chiropractor to every 120 000 people in South Africa today. This is significant in that areas that are underrepresented in terms of the chiropractic profession (Engelbrecht, 2009) create inaccessibility to chiropractors due to their geographic location. This may result in decreased exposure, and in turn leading to lower levels of knowledge and more negative perceptions of the chiropractic profession by honourable members.

Therefore the expectations of perceptions after reviewing factors affecting the environment are as follows:

- Coverage by a medical aid scheme (2.2.1.2.2.4): Respondents are expected to have an increased level of knowledge and thus more positive perception of chiropractic based on their increased likelihood of being covered by a medical aid scheme due to their employment and thus financial stability (MacLennan and Wilson, 1996; Astin, 1998 and Thomas and Coleman, 2004).

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- It is expected that the members of the HPC, having access to multiple sources of information regarding health related matters (Section 2.2.1.2.2.5) should have an above average knowledge and thus a good perception of the chiropractic profession.

### **2.2.1.3 External Factors: Factors in the Perceived Object Affecting Perception**

Various factors can affect an individual's perception of certain objects (Robbins, 1996; Berg and Theron, 1999). They are rarely observed in isolation therefore the relationship between the object and the background in which it is observed will influence perception (Robbins, 1996). So similar people, objects or events are grouped together due to their similarities even if they have different distinguishable features (Robbins, 1996). The perceiver, therefore, will have an affect on how the perceived object is seen in context.

The following factors in the perceived object may influence perception (Hayes, 1994; Robbins, 1996; Berg and Theron, 1999) and are discussed below:

- History.
- Proximity.
- Accessibility barriers.
- Background .
- Motion.
- Size.
- Novelty.
- Sound.
- Chiropractic Education in South Africa.
- Chiropractors self imposed barriers to primary care provider roles.

### 2.2.1.3.1 History

#### 2.2.1.3.1.1 Chiropractic History in South Africa

Chiropractic has a long history dating back to 1895 when the first official manipulation/adjustment was performed (Chiropractic Association of South Africa, 2009). The first Chiropractors came to South Africa in the early 1920's (Till, 1997). According to Till (1997), the first South African association concerned with the art of manipulation, the South African Manipulative Practitioners Association (SAMPa) was formed in 1939. SAMPa encompassed practitioners who performed manipulation irrespective of their designation.

From a basis of philosophical differences, the early 1940s saw the establishment of the South African Health Practitioners Association. However in 1947, whilst seeking parliamentary support opposing the Supplementary Health Services Bill, it was decided to merge both their associations under the common banner of SAMPa (Till, 1997). Notwithstanding this merger, Till (1997) states that the South African Chiropractor's Association (SACA) was formed in 1952 by Haldemann which followed the “straight” chiropractic school of thought. Shortly thereafter, in 1958, SAMPa became the Pan-African Chiropractor's Association (PACA) which placed no restrictions on its members in terms of which chiropractic school of thought they adopted. Chiropractic now had two separate representative associations again – with a conflict in philosophy (Till, 1997).

With the support of the Confederation of Labour, a private members bill for the recognition of chiropractic was presented to parliament in 1961. Much interest was shown in chiropractic during the debate and many influential government officials reported satisfactory chiropractic treatment which prompted the presiding Health Minister (Hertzog), to appoint a government Commission of Inquiry into

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chiropractic, based on the philosophical conflict evident in the profession (Till, 1997; Brantingham and Snyder, 1999).

As a result of the Commission of Inquiry, PACA and SACA formed a Joint Legislative Committee (JLC) which compiled a single joint submission to the Commission, in order to form a “united cause in the face of parliament”. SACA then unilaterally presented a separate submission to the Commission which contradicted some information in the joint submission; thus increasing the divide between the two associations (Brantingham and Snyder, 1999).

It took the Commission just six months to complete its inquiry and the subsequent report recommended that chiropractic be done away with and that any beneficial treatment methods be adopted by orthopaedic surgeons or physiotherapists; especially in view of the fact that the profession did not itself agree as to what chiropractic was. The inquiry methodology was deemed flawed and biased according to the chiropractors resulting in its publication being prevented by the Minister of Health of the time who believed its release was not in the interest of the public (Till, 1997). Further presentations to the next Health Minister were rejected due to the divided representation of chiropractic and the resultant confusion. Consequently, PACA and SACA amalgamated in 1971 to form the present day Chiropractic Association of South Africa (CASA). Persistent approaches from CASA for the legislated recognition of chiropractic led to the Health Minister (de Wet), introducing a bill in 1971, essentially banning chiropractic according to the findings of the Commission of Inquiry. It was then withdrawn due to the popularity of the profession and replaced. In 1971 the subsequent bill served to register all existing chiropractors and students but disallowed any new registrations, effectively halting any professional growth (Brantingham and Snyder, 1999).

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Till (1997) described how after 7 years of protest by CASA, the new Health Minister called for a submission from CASA in 1978. The following three documents were requested to review the state of chiropractic:

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- a memorandum on the State of the Art of chiropractic
  - a rebuttal to the report of the Commission of Inquiry
  - answers to questions in parliament around the 1971 legislation
- 

After extensive legal consultation CASA presented the documents to the newly elected Health Minister (Munnick). CASA was invited to present its arguments to the South African Medical and Dental Council (SAMDC) as well as members of the Health Ministry. The voting was 17-16 against the incorporation of chiropractic into the SAMDC. This then led to the Minister's proposal for separate legislation to ensure proper control of the professions.

The government then requested the Human Sciences Research Council (HSRC) to conduct a survey on the extent of usage and public satisfaction related to the five professions concerned (i.e. chiropractic, homoeopathy, osteopathy, naturopathy and herbalism). The Steenkamp Report, yielded a high level of usage of and satisfaction with these professions. Hence, 1982 saw the establishment of the Chiropractors, Homeopaths and Allied Health Services Professions Council, a statutory body that wrote chiropractic into law.

Still, in order to cement the legislation, the opening of registers for formal education in the professions was needed. With chiropractic dying following the 1971 legislation, there was a need to send a delegation to chiropractic colleges abroad to guide the establishment of quality chiropractic education in South Africa. Following such a trip in 1984 by Milani, van der Veen and Till, a report

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was presented to the Health Ministry which persuaded government to amend legislation allowing professional growth to occur.

Requesting government to re-open five separate training programmes seemed impractical and after consultation with CASA and the South African Homoeopathic Association (SAHA), the Minister of Health therefore requested that just two registers be opened. It was thus agreed that one manipulative programme (i.e. chiropractic would incorporate aspects of chiropractic, osteopathy and naturopathy) and one programme, homoeopathy (incorporating aspects of herbalism and naturopathy) would be established. Government agreed and the necessary legislative amendments were made. After two curricula were formulated, one university and seven Technikons expressed interest in offering the two programmes (Till, 1997). In January of 1989 the first chiropractic students were accepted into Technikon Natal in KwaZulu-Natal, Durban. It became the first chiropractic department, and the second governmentally supported tertiary educational system in the world (Brantingham and Snyder, 1999).

With the history of chiropractic being anything but reflective of a normal social development (Coulter, 1992; Wardwell, 1994), it stands to reason that any honourable member that had any knowledge of this haphazard development would have a potentially negative perception and possibly limited knowledge.

### 2.2.1.3.1.2 Chiropractic Professional Growth

Since its inception, chiropractic has risen to become the third most used primary health care profession in the world after medicine and dentistry (Leach, 2004)

During the past 10 years, numerous studies have reported the increasing use of complementary and alternative medicine (CAM), including chiropractic, worldwide. (Hughes and Wingard, 2006; Wojcicowski *et al.*, 2006; Bodeker and Kronenberg, 2002; McFarland *et al.*, 2002; Bodeker, 2001; Lewith *et al.*, 2001; Ernst and White, 2000).

Verhoef and Page (1996) suggest that many patients are drawn towards complementary medicine because of its focus on holistic care, together with patient responsibility for health and well being. Of all the CAM therapies, chiropractic is the most often used by the general public (Sherman, *et al.* 2004). Research by Vernon (1991) and Miller and Gemmel (2004) indicated that the advantage of chiropractic care is a patient centred approach which has the potential to influence patient outcomes for the better and result in a positive patient experience, thus encouraging the patient to return for further treatment.

This growing number of chiropractors support the increased demand for the profession. There has been a notable increase in the number of chiropractors throughout the world over the past few years. In 2000, there were 81,000 chiropractors compared with 65,000 in 1989 (Chiropractic Diplomatic Corps, 2007). The current number of South African chiropractors registered with the CASA stands at 350 (Chiropractic Association of South Africa, 2009).

### 2.2.1.3.1.3 Current Professional standing

Meeker and Haldeman (2002) infers that chiropractic has now come to a crossroads between alternative and mainstream medicine. According to Coulter (1992), chiropractic has gained widespread social acceptance among the allopathic fraternity, and it is viewed as an alternative form of health care, and in some cases as a speciality. Over the last 30 years with chiropractic becoming more accepted, the profession has come to be under continuous evaluation (Wardwell 1994).

The lack of scientific evidence to substantiate the claims made by the chiropractic profession in the past (Brantingham and Snyder, 1999) has now changed, with many chiropractic research articles being published in more multidisciplinary/mainstream publications (Langworthy and Smink, 2000). The reading of such medical journals may be one way of increasing the awareness of chiropractic amongst honourable members who may principally belong to the allopathic health fraternity in South Africa. However, the perceptions may still exist due to these scientific publications not being read by the South Africa public at large, misinformation or misinterpretation of the information or limited understanding of the same information (Wardwell, 1994).

In some countries (for example Netherlands) it can be found that better awareness and education of what the chiropractic profession entails may be beneficial, as 'greater awareness appears to be associated with increased levels of professional acceptance and respect' (Langworthy and Smink, 2000). This increased professional acceptance would mean greater awareness of chiropractic amongst the public (including honourable members), ensuring better understanding of chiropractic, thereby enhancing their level of knowledge and their perception of the chiropractic profession.

### 2.2.1.3.2 Proximity

Since the founding of chiropractic in 1895 in the United States, the profession has grown to incorporate practicing chiropractors in over 109 countries across the world (Chiropractic Diplomatic Corps, 2007), but most people (76%) only see a ratio of one chiropractor to every hundred thousand to ten million people (Diplomatic chiropractic global strategy).

It stands to reason that living in a region that does not recognize chiropractic or has a very low chiropractor-patient ratio, would restrict a person's knowledge growth and their perception of the profession due to the fact that they have decreased exposure to it and therefore limited information regarding chiropractic.

According to the Chiropractic Association of South Africa (2008), there are 350 practicing chiropractors in South Africa registered with CASA. They are distributed as follows:

127 registered chiropractors in the Gauteng province, 102 registered chiropractors in the KwaZulu-Natal province, 66 registered chiropractors in the Western Cape province, 32 registered chiropractors in the Eastern Cape province, 10 registered chiropractors in the Mpumalanga province, 5 registered chiropractors in the North West province, 4 registered chiropractors in the Free State province, 3 registered chiropractors in the Limpopo province and 1 registered chiropractor in the Northern Cape province. This would infer that honourable members of those provinces with higher numbers of registered chiropractors would have a higher level of knowledge and more positive perceptions of the profession, simply due to the fact that they are in closer proximity to practicing chiropractors, increasing their exposure to the profession.

### **2.2.1.3.3 Accessibility barriers**

Difficulty in accessing primary care in many locations may stem from shortages of providers in these areas (Caplan and Associates, 1994; Gaumer *et al.* 2002) as discussed with respect to the geographic location (2.4.1.2.3.2) and proximity of practicing chiropractors (2.4.1.3.2). Chiropractic services are not offered in hospital settings which are seen as the most accessible healthcare centres. The exception lies with the Kimberley Hospital Complex where a separate dedicated chiropractic clinic is established on the hospital premises (Higgs, 2009). Since most chiropractors in South Africa work in urban areas (Chiropractic Association of South Africa, 2008) lack of accessibility in rural locations of the country will negatively influence their knowledge regarding chiropractic.

Honourable members, however, being residents of predominantly city/urban locations should have a higher level of knowledge of chiropractic and thus more positive perceptions of chiropractic due to their increased exposure to practicing chiropractors who concentrate predominantly in urban residential areas, their elevated socio-economic and financial status (2.4.1.2.3.1) and their coverage by medical aid (2.4.1.2.2.4).

There are about 200 000 traditional healers in South Africa and about 80% of the Black population use traditional medicines (About South Africa, 2007). According to Dreyer (2004), they are the first health care providers to be consulted in up to 80% of the cases especially in provinces like Limpopo and the Eastern Cape where there are higher numbers of traditional healers noted (Richter, 2003). The high percentage of use of another, although complementary medical profession, would limit the need of these patients to source another health care professional for care. This would by default not expose these patients to the option of chiropractic care, presenting a possible barrier to expanded roles for

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chiropractors in places where there may be opportunity created due to poor access to medical doctors (Caplan and Associates, 1994; Gaumer, *et al.* 2002).

### **2.2.1.3.4 Background**

Since its inception various tenets of the chiropractic profession regarding teachings and techniques have been thoroughly scrutinized and questioned by other highly influential groups, more especially medicine and sociology (Coulter, 1992 and Wardwell, 1994). Allopathic medicine, in particular has viewed chiropractic with deep suspicion and concern (Curtis and Bove, 1992).

This history may have influenced honourable members greatly, many of whom may be of the allopathic fraternity. They may have a low level of knowledge and a negative perception of the chiropractic profession due to the propaganda by highly influential groups which set out to discredit and destroy chiropractic (Chiropractic Association of South Africa, 2009) and the fact that there was no scientific evidence to substantiate the claims made by the chiropractic profession in the past (Brantingham and Snyder, 1999).

### **2.2.1.3.5 Motion**

Motion here refers to the movement in support of CAMs, including chiropractic treatment.

As previously mentioned, numerous studies over the past decade have indicated a worldwide increasing use of chiropractic treatment (Hughes and Wingard, 2006; Wojcicowski *et al.*, 2006; Bodeker and Kronenberg, 2002; McFarland *et al.*, 2002; Bodeker, 2001; Lewith *et al.*, 2001; Ernst and White, 2000). The increased world-wide usage of chiropractic indicates an increased exposure to the profession which will in turn increase knowledge of chiropractic and improve

perceptions regarding the profession amongst the public (including honourable members).

### **2.2.1.3.6 Size**

The increased demand for chiropractors is further supported by the growing number of chiropractors within the profession (Lees, 2000). This further supports the discussion on chiropractic professional growth (2.2.1.3.1.2) which increases exposure to the profession.

### **2.2.1.3.7 Novelty**

Although chiropractic as a profession has been around for more than 100 years, much of the public are only now starting to hear about it, and experience treatment for themselves (Higgs, 2009). It seems that there is a perceived novelty or “newness” about chiropractic as more people are only now beginning to understand its benefits as a non-drug approach to the treatment of neuromusculoskeletal disorders which may increase the level of knowledge and positively influence the public’s perception, including honourable members, of the chiropractic profession.

### **2.2.1.3.8 Sound**

Sound, as a factor influencing perception, refers to any form of communication that takes place through hearing. In the case of chiropractic and other medical personnel, sound may refer to the way in which the profession is portrayed through television, radio, film or word-of-mouth communication.

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### **2.2.1.3.9 Chiropractic education in South Africa**

The first chiropractic learners were accepted into Technikon Natal, South Africa, in 1989 (Till, 1997). Before this time, those interested in studying chiropractic had to enrol in college's overseas (Brantingham and Snyder, 1999). Hence, the public and honourable members may still be of the understanding that this is the status quo. The misconception that chiropractic training is not offered in South Africa may contribute towards a lack interest and therefore also a lack of knowledge about the profession.

Unlike the general public, honourable members, being members of parliament who pass legislation, should be more aware of the 1982 legislation that opened the registration licensure of new chiropractors and the establishment of educational programmes in South Africa (Brantingham and Snyder, 1999). Honourable members should therefore be aware that the chiropractic educational programme is available at the Durban University of Technology and the University of Johannesburg in South Africa and that education and training is spread over six years, after which a Masters Degree in chiropractic is awarded. The first two years include a thorough grounding in subjects related to general sciences, after which time learners are introduced to more clinically orientated subjects. At the end of the 5<sup>th</sup> year of study, learners are required to write and present a research project and dissertation. In addition to the academic component, the fifth year learners receive training in the Chiropractic Day Clinic treating patients, thereby accumulating practical experience. The final two years of the programme emphasize the holistic nature of the profession with particular attention to neuromusculoskeletal disorders (Faculty of Health Sciences, 2009).

Limited understanding of the entrance requirements to the chiropractic programmes at these institutions will also limit the knowledge of honourable members regarding the chiropractic profession. Van As (2005) found very little

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knowledge or understanding of what chiropractic is at level of the Career Guidance Counsellors. The entrance requirements include (Faculty of Health Sciences, 2009):

- Applicants must be over 17 years of age
- Reasonably physically fit and
- In possession of a senior certificate with matriculation exemption. Subjects must include Higher grade Mathematics, Physical Science and/or Biology (Faculty of Health Sciences, 2009).

And/or where applicable:

Compulsory Requirements:

1. Life orientation at NQF level 4
2. English language either 1st or 2nd language at NQF level 4
3. Mathematics at NQF level 4

Elective Requirements:

4. Life Sciences at NQF level 4

**AND/OR**

5. Physical Sciences at NQF level 4

However in the light of the slow, steady growth in chiropractic since the inception of the training institutions; it is also conceivable that there is increased exposure of chiropractic to the public, in that in theory, there are more practicing chiropractors available to educate them. Increased education of chiropractic by the general public, including honourable members, will allow for a greater understanding and knowledge of the profession.

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This is however in contrast to the training programme at the Durban University of Technology (DUT) where the total number of applications for chiropractic achieved approximately 300 applications in 2003 and about 500 applications in 2009 (Boshoff, 2006; Korporaal, 2009), with only 45 applicants being accepted per year (about 9% of the application pool).

Thus it could be argued that even though there has been an increase in the number of practitioners over time since the inception of the formal chiropractic educational programme, these increased numbers have not been associated with a significant increase in the number of applications over the corresponding period. In addition, these statistics also lend credence to the fact that even with increased scientific validation and the achievement of masters degree qualifications by all practicing chiropractors in South Africa; this information is not being favourably translated into the public's knowledge pool. This will therefore limit the level of knowledge and perceptions of honourable members.

Gesler (1998) states that the chiropractic profession may be investigated from medical, economic, social, cultural and geographic perspectives. As a result there is widespread debate and research into public utilization of chiropractic, its scope of practice, therapeutic efficacy and relations with other professions as some overlap between these perspectives occurs. Thus with increased acceptance of chiropractic comes its continuous evaluation by others (Wardwell, 1994).

Also, it must be noted that since the majority of health care courses are at least a minimum of three years in duration (e.g. nursing diploma) (Department of community health studies, 2009), respondents could answer the questionnaire based on a generic reference norm (based on their education and experience and not by an actual understanding of the chiropractic course).

### **2.2.1.3.10    Chiropractors' self-imposed barriers to primary care provider roles**

Not all chiropractors think of themselves as primary contact practitioners as stipulated within the scope of practice outlined by the Allied Health Professions Act of 63 of 1982 (AHPCSA, 2007). Some prefer to limit their scopes of practice to neuromusculoskeletal conditions because of training and possibly lack of hospital privileges, which does not allow for access to all aspects of primary care (Gaumer, *et al.* 2002) such as HIV/AIDS related health care, a field in which chiropractors are not deemed to be qualified (Gaumer *et al.*, 2002; Hunter, 2004; Louw, 2005; Kew, 2006; Van As, 2005; Myburgh and Louw, 2007; Rattan, 2007; Butt, 2008; Cloete, 2008; Maharaj, 2008; Naidoo, 2008). Thus it would seem possible that most chiropractic consumers and other potential consumers view chiropractors as back specialists (Caplan and Associates, 1994; Gaumer, *et al.* 2002).

Gaumer, *et al.* (2002) asserts that if chiropractors are to serve as primary health care practitioners as per this Act and if they are to alter the existing care-seeking behaviours of consumers, chiropractors must overcome impressions that they primarily treat lower back pain. The professions has placed an over emphasis that is perceived to be related to spinal care and spinal health (Caplan and Associates, 1994; Gaumer *et al.*, 2002; World Federation of Chiropractic, 2005; Chapman-Smith, 2009).

Change could lead future generations of chiropractors into primary health care roles within primary health care facilities such as government hospitals and clinics, increasing the profession's exposure to the general public, enhancing the level of knowledge and perception amongst all South Africans.

### 2.3 Summary

Based on the discussion of the mentioned factors, it can be seen that there are modifiers to the exposure of the honourable members with respect to the chiropractic profession. Some of these factors are internal to the individual, such as their values and attitudes, experiences, expectations and culture; and some of which are external, such as their environment, geographical location or events taking place around them.

All of these factors however have an influence on perception, and in this case, have an influence on honourable members' perception of the chiropractic profession.

Thus although the majority of the factors discussed in this chapter seem to support the premise that honourable members of HPC have a high level of knowledge and positive perceptions of chiropractic overall, it is indicated as with the research of Rubens (1996), Hunter (2004), Louw (2005), Van As (2005), Rattan (2007), Butt (2008), Cloete (2008), Heslop (2008), Maharaj (2008), Naidoo (2008) and Palmer (2008), that their knowledge and perception may be no better than that of the general public.

The research therefore aims to investigate and document these levels of knowledge and perceptions of honourable members of the various HPCs throughout South Africa, compare and contrast them between the committees and determine any associations between the factors influencing knowledge and perception as well as the participants' demographic factors in order to establish the strength of these relationships.

### **Chapter 3**

### **MATERIALS AND METHODS**

#### **3.1 Introduction**

This chapter primarily deals with the research methodology utilized and the process of data collection used in the research study. The process of statistical analysis is also discussed in detail within this chapter.

#### **3.2. Study design**

The research design of this study was a cross sectional, descriptive survey (Fink, and Kosecoff, 1985), which was based on a self-administered questionnaire (Salant and Dillman, 1994). The total number of respondents totalled 84. The final questionnaire (Appendix B2) was developed after reviewing similar research questionnaires (Rubens, 1996; Hunter, 2004; Louw, 2005; Van As, 2005; Kew, 2006; Pillay, 2006; Rattan, 2007; Talmage, 2007; Butt, 2008; Cloete, 2008; Heslop, 2008; Maharaj, 2008; Naidoo, 2008; Palmer, 2008), as well as input from a Focus Group and a Pilot Study conducted for the purposes of this research study.

Based on the above study design the research was approved by the Faculty of Health Sciences Research and Ethics Committee (Appendix H) indicating that the research protocol satisfied the ethical requirements set out by the Faculty of Health Sciences Research and Ethics Committee, Durban University of Technology as well as the Declaration of Helsinki (Johnson, 2005).

### 3.3. Advertising/Recruitment

Due to the nature of the research study, no advertising was necessary. Recruitment of respondents involved contacting the secretaries of each HPC to include the discussion of this study on the agenda of the next suitable meeting. Upon the researcher's arrival at that meeting, all honourable members present were verbally invited to participate in this study. All honourable members who were willing to participate in this study were recruited.

### 3.4. Sample

#### 3.4.1 Methodology

Self selection sampling, based on participant response (Esterhuizen, 2007) was used.

#### 3.4.2 Size

The population size of honourable members within each province comprised of the following:

- 8 from Free State province (Senokoane, 2008),
- 9 from Gauteng province (Pantshwa, 2008),
- 10 from Northern Cape province (Casper, 2008),
- 6 from North West province (Selogelo, 2008),
- 10 from Limpopo province (Mashamba, 2008),
- 7 from Mpumalanga province (Thompson, 2008),
- 7 from Western Cape province (Daza, 2008),
- 10 from KwaZulu-Natal province (Reddy, 2008),
- 10 from Eastern Cape province (Balani, 2008) and
- 7 from the National HPC (Majalamba, 2008);

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This therefore totalled to 84 respondents.

It was approved by the Faculty of Health Sciences Research and Ethics Committee, Durban University of Technology that a minimum response rate of 20% was required for statistical analysis, as per the approved DUT 186 research proposal of this study (Appendix H). Therefore 17 questionnaires were required for this study prior to statistical analysis being completed (Esterhuizen, 2008).

### **3.4.3 Group Allocation**

The respondents were allocated to ten separate groups (nine provincial and one national HPC) as well as one collective group for statistical analysis as this allowed a comparison between groups. In most cross sectional surveys the study population is representative of the group being studied (Fink and Kosecoff, 1985). However, in the case of this research study, the group was small enough for all willing honourable members to be included in this study.

Prior to the completion of the research questionnaire (Appendix B2), the respondents were asked to refrain from including any personal information that may enable the researcher to identify the participant (i.e. stamps, signatures and other identifying markings.). If the individual did not wish to participate in the research they were asked to return the uncompleted questionnaire.

### 3.4.4 Characteristics

#### 3.4.4.1 Inclusion criteria

- Each respondent had to be a member of the HPC.
- Every current member of the HPC who was a willing participant of this study (The return of the completed questionnaire indicated the respondent's informed consent as approved by the Faculty of Health Sciences Research and Ethics Committee).
- Partially completed questionnaires were accepted (with all omitted questions considered invalid/unknown and indicated as such in the statistical analysis of the research).
- Respondents had to read and/or understand English in order to complete the questionnaire proficiently. This however was not expected to restrict the participation of anyone from the research as the language of communication in the HPC meeting environment is primarily English according to SouthAfrica.info (2008).

#### 3.4.4.2 Exclusion criteria

- Anyone who did not wish to participate in the research study.
- Anyone that did not return the questionnaire.
- Anyone who participated in the Focus Group or Pilot Study.

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### 3.5. Procedure for questionnaire administration and data collection

- The exact number of honourable members of each committee and the contact details of their respective secretaries was obtained from the national Ministry of Health (Majalamba, 2008).
- Secretaries of each provincial HPC were then contacted to confirm these numbers and informed of the research.
- Information regarding the date, time and venue of the forthcoming three meetings of the HPC of that province was requested from these secretaries (Balani, 2008; Casper, 2008; Daza, 2008; Majalamba, 2008; Mashamba, 2008; Reddy, 2008; Pantshwa, 2008; Senokoane, 2008; Selogelo, 2008; Thompson, 2008).
- Furthermore, an approximately thirty minute time-slot at the most suitable forthcoming meeting was requested. The researcher also requested that an item be officially included in the agenda of this meeting for the completion of the research questionnaire by willing honourable members (Appendix A1).
- Upon receipt of requested details from HPC secretaries, and confirmation of the arrangements (Appendix A2), the researcher flew via South African Airways (SAA) to each provincial legislature and the national legislature on the day of the arranged meeting. Travel arrangements were organised and sponsored by the KwaZulu-Natal Provincial Legislature (Appendix E) and the researcher's family as the budget allocated to the research did not cover these expenses.
- Upon arrival at the HPC meeting, the researcher introduced herself and briefly explained the purpose of the research as indicated in the covering letter (Appendix B1).
- The researcher then handed a copy of the final questionnaire (Appendix B2) for each willing member of the HPC to complete in full.

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- The questionnaire for current honourable members was administered in a semi supervised fashion (Bourque and Fielder, 1995). For the purpose of the research, honourable members were given questionnaires to complete in a group environment. They were all given the same instructions, and if an individual had any questions or comments, they were handled in the group environment.
- It should however be noted that the members of the HPC were not allowed to communicate within the meeting environment in order to assist them in completing the questionnaire.
- The return of the completed questionnaire indicated the respondent's informed consent, as per the Faculty of Health Sciences Research and Ethics Committee recommendation.
- Each respondent placed their completed questionnaire into a sealed box (Box B) labelled "Completed Questionnaires" which was placed in the meeting room under the care of the attending HPC secretary. This was to prevent the identification of any particular respondent's questionnaire by the researcher and to ensure complete respondent anonymity and security.
- Upon receipt of the box of completed questionnaires from the attending HPC secretary, the researcher presented all persons present at the meeting with the informative booklet (Chiropractic Association of South Africa, 2008) provided by an executive member of the Chiropractic Association of South Africa (Korporaal, 2008).
- Each questionnaire was allocated a file number in order to keep track of their allocation for statistical analysis (i.e. **Province** and the individual questionnaire **number**– e.g. KZN1, EC1).
- As answers are confidential, the completed questionnaires were stored in a locked filing cabinet in the custody of the researcher / research supervisor.
- Data analysis was then completed.

### 3.6 Measurement tool

In order to accurately measure the constructs of knowledge and perception a questionnaire had to be developed and refined. The following sections elaborate on the process and procedure utilised to develop the questionnaire (measurement tool).

### 3.7 Procedure for the development of the measurement tool

1. Factors listed in the literature review (Hupkes, 1990; Rubens, 1996; Dyer, 1997; Gaumer, *et al.* 2002; Hunter, 2004; Louw, 2005; Van As, 2005; Kew, 2006; Pillay, 2006; About South Africa, 2007; Rattan, 2007; Talmage, 2007; Butt, 2008; Chiropractic Association of South Africa, 2008; Cloete, 2008; Heslop, 2008; Maharaj, 2008; Naidoo, 2008; Palmer, 2008) were taken into account and used to generate a variety of possible questions contextualised to the South African context so as to allow for information to be generated with regards to the level of knowledge and the perception of the respondents.
2. The questionnaire was then constructed utilising different sections and types of questions to ascertain an array of information pertaining to the level of knowledge and the perception of the respondents towards the chiropractic profession (Hupkes, 1990; Rubens, 1996; Dyer, 1997; Gaumer, *et al.* 2002; Hunter, 2004; Louw, 2005; Van As, 2005; Kew, 2006; Pillay, 2006; About South Africa, 2007; Rattan, 2007; Talmage, 2007; Butt, 2008; Chiropractic Association of South Africa, 2008; Cloete, 2008; Heslop, 2008; Maharaj, 2008; Naidoo, 2008; Palmer, 2008).

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3. The questionnaire was then subjected to a Focus Group which constructively criticised the questionnaire. Following these amendments to the questionnaire it was then initially piloted at a Chiropractic Departmental research meeting.
4. Secondary piloting of the questionnaire followed thereafter within a group of Portfolio committee members (excluding members of HPCs). Again amendments to the questionnaire were made following constructive criticism by the Pilot Study group.
5. The final questionnaire was then developed.

### **3.7.1 Questionnaire development**

The Pre-Focus Group questionnaire (Appendix C5) was then constructed utilising different sections representing different types of questions to ascertain an array of information. The questionnaire comprised 48 questions in 6 sections, pertaining to personal details; educational details; personal experience of chiropractic treatment; level of knowledge of chiropractic; integration of the chiropractic profession in the primary health care system; scope of practice of chiropractic and the perception of the chiropractic profession.

### 3.7.2 Focus Group

Adaptation of the questionnaire was accomplished through the use of a Focus Group. They discussed the questionnaire, and the factors that it covers, to rule out any ambiguity and syntax difficulties.

According to Salant and Dillman (1994), a group of at least 8-11 people are required for a constructive Focus Group discussion so that best results are yielded. For this study, the Focus Group consisted of 9 people (including the researcher and research supervisor), who were selected to take part:

- Due to their familiarity of the environment in which the research would take place and / or
- Their similarity to the respondents who will complete the survey questionnaire.

The reason for holding the Focus Group was to stimulate individuals thinking about the research topic and to encourage them to develop ideas about it (Salant and Dillman, 1994) so as to improve the questionnaire. Focus Groups also encourage the individuals to support the research by increasing the relevance of the research with respect to time, place and people, thus focussing on the construct being measured more accurately (Salant and Dillman, 1994).

The members of the Focus Group included:

- The researcher.
- The research supervisor. The supervisor had instructed and guided the researcher through the research process and the questionnaire development.

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- One chiropractic student who was able to offer their perspective on the questionnaire, especially questions pertaining to the level of knowledge of the chiropractic profession, the scope of practise of chiropractors, and medical jargon used in the questionnaire as well as changes to certain questions to rule out any ambiguity and syntax errors.
- Two qualified chiropractors who were able to offer their perspective on the questionnaire, especially knowledge questions and medical jargon used in the questionnaire as well as changes to certain questions to rule out any ambiguity and syntax errors.
- One representative of the Chiropractic Association of South Africa (CASA) who was able to offer their perspective on the questionnaire, especially knowledge questions and medical jargon used in the questionnaire as well as changes to certain questions to rule out any ambiguity and syntax errors.
- One Biostatistician who was able to offer assistance in the inclusion or exclusion of particular questions with respect to the statistical analysis of the responses to these questions as well as changes to certain questions to rule out any ambiguity and syntax errors.
- Two members of parliament, who represented the KwaZulu-Natal provincial legislature, provided critical insight into factors which may play a role in the forming of their perceptions about the chiropractic profession, the use of medical terms in the questionnaire as well as changes to certain questions to rule out any ambiguity and syntax errors.

This composition was necessary to maintain homogeneity of the group because it was vital for the group's ability to share a discussion on the research topic (Morgan, 1997). The Focus Group for this study consisted of 9 participants, some from health-care professions, some lay persons, including the researcher and a camera operator/witness.

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A registration process is common practice to verify that participants meet the screening requirements for the Focus Group (Morgan, 1997). This is done for two reasons:

- Firstly, it is to verify that participants are reasonably representative of the population, and
- secondly, to aid in analysis, as there may be a factor in the background of a participant that may help explain a certain view.

Therefore each member of the Focus Group initially received and signed the following documentation:

- Letter of Information (Appendix C1)
- Informed Consent Form (Appendix C2)
- Confidentiality Statement (Appendix C3)
- Code of Conduct (Appendix C4)

The purpose of these forms collectively was to ensure that the participants were informed about the intentions of the researcher, the topic involved and the nature of this study from the outset. These documents also made the whole process formal by the participant providing a written Informed Consent. This confirmed that they participated willingly and of their own sanction and that they would abide by a certain Code of Conduct and behaviour during and after the discussions. Finally the participants also agreed in writing that the information and material discussed in the Focus Group is confidential and not for general public discussion.

The Focus Group members, after reading and signing the corresponding documentation, (Appendices C1, C2, C3, and C4) were each handed the questionnaire (Appendix C5) and asked to read through it briefly. The researcher proceeded to then read out aloud each question in the questionnaire in a sequential fashion.

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In this way each question was put forward to the Focus Group to determine if it was:

- Relevant to this study and applicable to honourable members.
- Understandable and unambiguous.
- The instructions to answer the questions were clear and simple to follow.

The recommendations made by the Focus Group as a whole were taken into account and suggested changes were implemented only upon unanimous agreement by the Focus Group, to produce a redefined version of the questionnaire (Appendix D1). Through this process the face validity<sup>1</sup> of the questionnaire was tested / determined.

The questionnaire was further tested for its content validity and construct validity by the same Focus Group. In this context, an instrument has content validity when the content of the questionnaire is considered effective, and well rounded enough to be able to assess a particular concept – in this instance the concept of chiropractic. Construct validity measures how accurately answers to questions in the questionnaire reflect theoretical predictions of a particular construct within the questionnaire.

Thus the Focus Group was utilized to ensure that the questionnaire is sound in establishing the information which is to be used for the context of the research title's aim and objectives (Bernard, 2000).

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<sup>1</sup> Face validity, which is the simplest type of validity, is determined by agreement between the researcher and those who have a vested interest in the questionnaire (represented by participants in the Focus Group). In this respect face validity refers to whether “on the face of it” the questionnaire seems unambiguous, valid and easily interpreted by the participants taking part in the Focus Group (Bernard, 2000; Hicks, 2004).

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Following suggestions made at the Focus Group meeting, changes were adapted to the questionnaire to the satisfaction of the above mentioned validity criteria (e.g. the inclusion of the questions “Have you/your family etc. seen a chiropractor before?”), furthermore grammar and syntax (e.g. the question “For how long have you been involved at national/provincial level health care administration?”) was adapted and corrected (as “For how long have you been involved at national/provincial/municipal level health care oversight?”).

### **3.7.2.1 Pre Focus Group Questionnaire (Appendix C5) changes to produce Post Focus Group/Pre Pilot Study Questionnaire (Appendix D1):**

#### Formatting Changes (including answer format options):

For Question 1.2: Time-frame table added to include possibility of more than one period of sitting on the HPC in a lifetime.

For Question 2.3: Examples of each type of qualification was added as follows:

For Arts option “(e.g. graphic design, jewellery design)” added.

For Basic Sciences option “(e.g. human physiology)” added.

For Commerce option “(e.g. MBA, Law)” added.

For Engineering and the built environment option “(mechanical engineering, surveying)” added.

For Health Sciences option “(radiography, nursing)” added.

All options were listed in alphabetical order.

Question 6.1 became 7.1 and the entire question was rephrased from “Which one of the following statements best reflects your perception of the chiropractic profession” to “Please rate each of the following statements reflecting your perception of the chiropractic profession”. “Please cross a number for each statement...” added. Each statement to be rated on a scale from 1 to 4. Statement “I am not informed enough to comment” added.

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Question 6.3 became 7.3 and the entire question was rephrased from “How do you view the chiropractic profession” to “Do you agree with the following views about the chiropractic profession?” An “X” in the appropriate box indicates “Yes” or “No” response to each view.

### Changes to options in Question 7.3 included:

“an alternative health care profession” changed to “a scientific alternative health care profession (registered with the Allied Health Professions Council of South Africa)” .

“Cheap” changed to “cost effective”.

“is accessible to everybody” placed as first option.

“just the right cost” omitted.

“... medical aid...” added to “ should be part of an additional package”.

“part of the” changed to “covered by”.

Omitted options “should not be recognised by law”, “suitable for extra mural care”, “suitable for intramural care” and “too expensive”.

### Grammatical and spelling changes:

Question 2.3 “principle” was changed to “principal”.

Question 3.4 became 4.3 and upper case “C” on “Chiropractic” altered to lower case “c”.

Question 3.10 became 4.9 and upper case “K” on “Knee” altered to lower case “k”.

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### Questions omitted or added; or combined, omitted or added in modification:

Question 1.7 omitted.

Question 3.1 - 3.4 Table formulated and added.

Question 3.5 added.

Question 3.6 added.

Question 5.1 added.

Question 5.4 added.

Question 4.6 omitted.

Question 6.5.2 omitted.

### Questions or answer options modified:

1.3 Include “municipal” as an additional form of health care administration.

“...administration” changed to “...oversight”.

1.6 “(for statistical purposes only)” added. “South African of ... origin” added to ethnic group options.

1.12.1 became 1.11.1 and entire question rephrased from “Do members subscribe to online medical/health care journals” to “Do you read any chiropractic journals”.

2.3 “Basic Sciences” and “Other” with “(please specify)” options added.

3.3 became 4.2 and “do you think” omitted.

3.4 became 4.3 and “(You may choose more than one option)” added.

3.5 became 4.4 and “(Please cross the relevant block)” added.

3.6 became 4.5 and “(You may choose more than one option)” added.

3.7 became 4.6 and “...work under clinical supervision” changed to “...work within a clinic environment with medical supervision” and “(please specify)” added under “Other” option.

3.9 became 4.8 and “(Please leave out any option which you are unsure of)” added.

## Chapter 3: MATERIALS AND METHODS

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- 3.10 became 4.9 and entire question rephrased from “Chiropractors can specialize in the following areas in South Africa” to “Because of their training, chiropractors can Focus their treatment in the following areas”.
- 3.13 became 4.12 and option increments changed from increase by 50 to increase by 200.
- 4.1 became 5.2 and option increments changed from increase by 2 to increase by 10. Options “>50km” and “I do not know” was included in the table.
- 4.2 became 5.3 and “Specialist” option added to table. Changes to Conditions column included: Additions of “Allergies”, “Chronic conditions”, “Constipation”, “Diabetes Mellitus” and “Low back pain”. Added “disc herniation” to “Slipped disc” condition, and “Osteoarthritis” replaced “Pain in your joints” condition. “Sprains” condition omitted.
- 4.3 became 5.5 and rating scale decreased from 5 to 4 options.
- 4.4 became 5.6 and entire question rephrased from “... chiropractic integrated into the South African health care system?” to “... chiropractic accepted by the medical profession and the public of South Africa?” and “(Please cross one box only)” added.
- 4.5 became 5.7 and options “Public sector” and “Private sector” included.
- 4.7 became 5.8 and “... in your area” omitted.
- 4.8 became 5.9 and “If yes, please elaborate on what promotional material you have encountered” added.
- 5.1 became 6.1 and “and reliable” omitted.
- 5.2 became 6.2 and “and reliable” omitted. “rehabilitate and refer the patient for optimal patient benefit” added.
- 5.3 became 6.3 and “... for preventative or maintenance care...” added.
- 5.4 became 6.4 and “... to be able...” added. Option “Administration of drugs by injection”, “Drawing of blood through syringes for blood tests”, “Musculoskeletal Assessment including palpation”, “prescribe scheduled medication” added.

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6.2 became 7.2 and order of options changed.

6.5.3 became 7.5.2 and added option “by meeting with relevant associations/organizations”.

### Heading changes:

1. New section of questions added under the third heading of “Personal Experience of Chiropractic Treatment”.
2. All following sections were renumbered accordingly to fit inclusion of section 3.
3. Section 6 heading included as “The scope of practice of chiropractic”.
4. All headings placed in bold font.

### Questions completely unchanged:

1. 1.1.
2. 1.4.
3. 1.5.
4. 2.1.
5. 2.2.
6. 2.4.

### Questions completely unchanged except for numbering:

- |        |        |         |
|--------|--------|---------|
| 1.8    | became | 1.7.    |
| 1.9.1  | became | 1.8.1.  |
| 1.9.2  | became | 1.8.2.  |
| 1.9.3  | became | 1.8.3.  |
| 1.10   | became | 1.9.    |
| 1.11   | became | 1.10.   |
| 1.13   | became | 1.12.   |
| 1.14   | became | 1.13.   |
| 1.12.2 | became | 1.11.2. |

## Chapter 3: MATERIALS AND METHODS

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3.1	became	4.14.
3.2	became	4.1.
3.8	became	4.7.
3.11	became	4.10.
3.12	became	4.11.
6.4	became	7.4.
6.5.1	became	7.5.1.

Sessions are usually tape-recorded (in this case by the research supervisor) and the researcher also took notes on the discussion (Silverman, 2001 and Streiner and Norman, 1995). In addition videos of the proceedings were made and placed in a locked filing cabinet along with all documentation involved in the Focus Group, Pilot Study and completion of final questionnaires, in order to support the notes made by the researcher in the Focus Group meeting. The information was available to the researcher and research supervisor and provides evidence of the individuals involved and the content of the discussion. Due to the confidentiality agreement signed by all parties present at the Focus Group, this video footage is available to anyone who gains written permission from the researcher/research supervisor to view it.

For purposes of examination only, the video has been attached in the form of a DVD as Appendix K, at the back of this dissertation for examiner's reference only – the DVD will not be available in the final published dissertation in order to comply with the confidentiality required surrounding the Focus Group.

### 3.7.3 Pilot Study

The refined Post Focus Group/Pre Pilot Study Questionnaire (Appendix D1) was then subjected to evaluation and constructive criticism by the Pilot Study group. The questionnaire was sent to six respondents who met the inclusion criteria of this study, with the exception of this pilot group having included members of portfolio committees other than those in the health portfolio committee so as not to decrease this study's total sample size.

Respondents included one member of the KwaZulu-Natal provincial Education Portfolio Committee, Transport Portfolio Committee, Welfare and Population Development Portfolio Committee, Premiere and Royal Housel Portfolio Committee and two members of the Housing Portfolio Committee. Therefore the respondents chosen were representative of the study population (i.e. honourable members of the HPCs).

The purpose of the Pilot Study was to ascertain the following information (Fink and Kosecoff, 1985; Hicks, 2004):

- Were there any questions that were misleading or ambiguous to the respondent?
- Were the questions appropriate for the respondents participating in the survey?
- Was the information obtained in the survey consistent?
- Was the information obtained in the survey accurate?
- Would the questionnaire yield the correct and necessary information?
- Would the researcher be able to use the information collected in the survey correctly?
- Whether a reasonable amount of time had been allocated for the task.
- Whether or not the instructions are clearly understood by the respondents.

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Respondents were required to answer the questionnaire (Appendix D1), to determine if the questionnaire is understandable and simple to complete. It was judged in terms of its readability and simplicity. Members involved in the Pilot Study completed an evaluation form that further amended the questionnaire to produce the final questionnaire (Appendix B2).

### **3.7.3.1 Changes to Questionnaire (Appendix D1) to produce final Questionnaire (Appendix B2).**

The changes to questionnaire (D1) in the piloting process included:

Additions to the Instructions page:

“Please note that you are completing the questionnaire as an individual and not as a representative of the Health Portfolio Committee”,

“You are requested to answer the questionnaire without consultation with other participants” and

“Please do not place any stamps/signatures or identifying markings on the questionnaire”.

3.1 – 3.4 last column answer block length increased

5.9 extra “yes” answer block omitted

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### 3.7.4 Discussion of the final questionnaire (Appendix B2)

The self-administered questionnaire was divided into Sections 1, 2, 3, 4, 5, 6 and 7.

#### **Section 1:** Personal details – Questions 1.1 - 1.13

Information collected in **Section 1** was concerned with current demographic data and other personal data (e.g. age, gender, and ethnic group, number of dependents, medical aid, language/s spoken, and focus/foci of mandate within the HPC).

#### **Section 2:** Educational details – Questions 2.1 - 2.4

Information collected in **Section 2** was that regarding the respondent's educational details (e.g. highest qualification achieved, institution at which highest qualification was obtained).

#### **Section 3:** Personal Experience – Questions 3.1 - 3.4

The table in **Section 3** was to gather information regarding any personal experience with a chiropractor and chiropractic treatment.

#### **Section 4:** Level of knowledge about chiropractic – Questions 4.1 - 4.14

Questions in **Section 4** were concerned with assessing the respondent's level of knowledge about the chiropractic profession.

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### **Section 5:** Integration of chiropractic in primary health care system – Questions 5.1 - 5.9

Questions in **Section 5** were constructed for the assessment of the degree of integration of the chiropractic profession in the primary health care system of South Africa.

### **Section 6:** Scope of practice of chiropractic - Questions 6.1 - 6.4

Information collected in **Section 6** was concerned with evaluating the scope of practice of chiropractors.

### **Section 7:** Perception of the chiropractic profession – Questions 7.1 - 7.5

Information gathered in **Section 7** was indicative of the perception of the respondent towards the chiropractic profession and chiropractic treatment.

### **3.8 Measurement frequency**

Due to the nature of this study, the intervention was once off, with the filling out of the questionnaire.

### **3.9. Data analysis**

The data was analysed using the SPSS (version 15.0) statistical package (as supplied by SPSS Inc., Marketing Department, 44 North Michigan Avenue, Chicago, Illinois, 606611). A p value <0.05 was considered as statistically significant.

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Knowledge was scored using the questions and scale in Appendix I. The score was cumulative such that the higher the score the greater the knowledge of chiropractic. The maximum score was 55. Knowledge scores were expressed as a percentage of 55 by dividing the raw score by 55 and multiplying it by 100.

Perceptions were scored using the questions and scale in Appendix J. The score was cumulative such that the higher the score the more positive the perceptions of chiropractic. The maximum score was 66. Perception scores were expressed as a percentage of 66 by dividing the raw score by 66 and multiplying it by 100.

Descriptive analysis entailed frequency Tables and bar graphs for categorical variables, and summary statistics such as a mean or median, standard deviation or inter-quartile range, and range. Comparisons between variables were assessed using bivariate statistical methods. Pearson's correlation analysis was used to assess relationships between quantitative variables, while Pearson's chi square tests were used to assess associations between categorical variables. Students' t-tests and ANOVA tests were used to compare mean knowledge and perception scores between two independent groups (Esterhuizen, 2009).

### Chapter 4

## RESULTS AND DISCUSSION

### 4.1 Introduction

This chapter represents the statistical analysis of the data collected, as well as a brief discussion of these results. The data is discussed according to the four study objectives:

**Objective One:** To document the demographic data of the respondents.

**Objective Two:** To determine the level of knowledge of the respondents about the chiropractic profession.

**Objective Three:** To determine the perception of the respondents of the chiropractic profession.

**Objective Four:** To determine any associations between the factors influencing knowledge and perception as well as the demographic factors in order to establish the strength of these relationships.

## **Chapter 4: RESULTS AND DISCUSSION**

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### **4.2 Data Sources**

Data sources utilized to compile this chapter were from both primary and secondary sources of information.

#### **4.2.1 Primary Data**

Primary sources included information collected from the respondents of this study in the form of a completed questionnaire (Appendix B2).

#### **4.2.2 Secondary Data**

Secondary data sources included personal communications with the statistician (Esterhuizen, 2009) and the supervisor of the research project (Korporaal, 2009). It must be noted that the discussion of this chapter (as in chapter five) also required the use of the literature outlined in chapter two, which was obtained from books, journal articles, research dissertations internet and other appropriate sources used to construct arguments and hypotheses and with which to compare the results of the study.

## Chapter 4: RESULTS AND DISCUSSION

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### 4.3 Abbreviations pertinent to this chapter

- = = implies “equals to”.
- % = percentage.
- < = refers to a figure “less than” the figure reported.
- **ANOVA** = analysis of variance.
- **df** = degrees of freedom.
- **N** = number.
- **n** = refers to the sample size.
- **p** = refers to the p-value, which indicates the data statistical significance. If the p value is very small then it can be concluded that the results are significant (Hicks, 2004).
- **Q** = question.
- **Sig.** = Significance.

## Chapter 4: RESULTS AND DISCUSSION

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### 4.4 Statistical Analysis

Before the results are presented in this chapter, a few statistical concepts and calculations are explained. This provides the reader with a basic understanding of the significance of the values calculated and how these values are calculated.

#### 4.4.1 Null Hypothesis Testing

When designing a research project, the researcher tests a hypothesis and tries to prove (or disprove) similarities between the research categories. This is a research hypothesis. It is generally assumed that there is no difference between the tested research categories. This is known as the “Null hypothesis”. Therefore the research hypothesis is the opposite of the null hypothesis and is termed the “Alternative hypothesis” (Bland, 1996; Tropper, 1998; Campbell and Machin, 1999; Hinton, 2001).

Essentially the research hypothesis (alternative hypothesis) assumes a difference in the research categories and the null hypotheses assumes they are the same. Logically the null hypothesis would be false and the alternative hypothesis true if the research data in this study is showed. (Bland, 1996; Tropper, 1998; Campbell and Machin, 1999; Hinton, 2001).

#### 4.4.2 Significance of the p-value

In cases where the data collected during the research process is not consistent with the null hypothesis. This means that the null hypothesis would be rejected and the alternative hypothesis would probably be true. In addition the data is represented as being either statistically significant or insignificantly different from the null hypothesis. When a small p-value is calculated, the data is said to be statistically significant.

## Chapter 4: RESULTS AND DISCUSSION

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This means that the data collected provided enough information to reject the null hypothesis, therefore an effect was detected in the research process and the alternative hypothesis would probably be true. On the other hand, if the p-value were large, the data collected would not provide sufficient information to reject the null hypothesis, which means that there is not enough evidence to support the alternative hypothesis, therefore indicating further research is required.

The p-value (significance level) is usually selected before the collection of data and is usually set at  $p=0.05$  or  $p=0.01$ , which renders the probability (p-value) at a significant level. The smaller the p-value ( $p<0.001$ ) the higher the significance (Bland, 1996; Swinscow, 1996; Wright, 1997; Campbell and Machin, 1999; Hinton, 2001). For this study, the significance level was set at  $p=0.05$ , although cognizance was given to  $p=0.01$  if the results were close or multiple significances were found.

## Chapter 4: RESULTS AND DISCUSSION

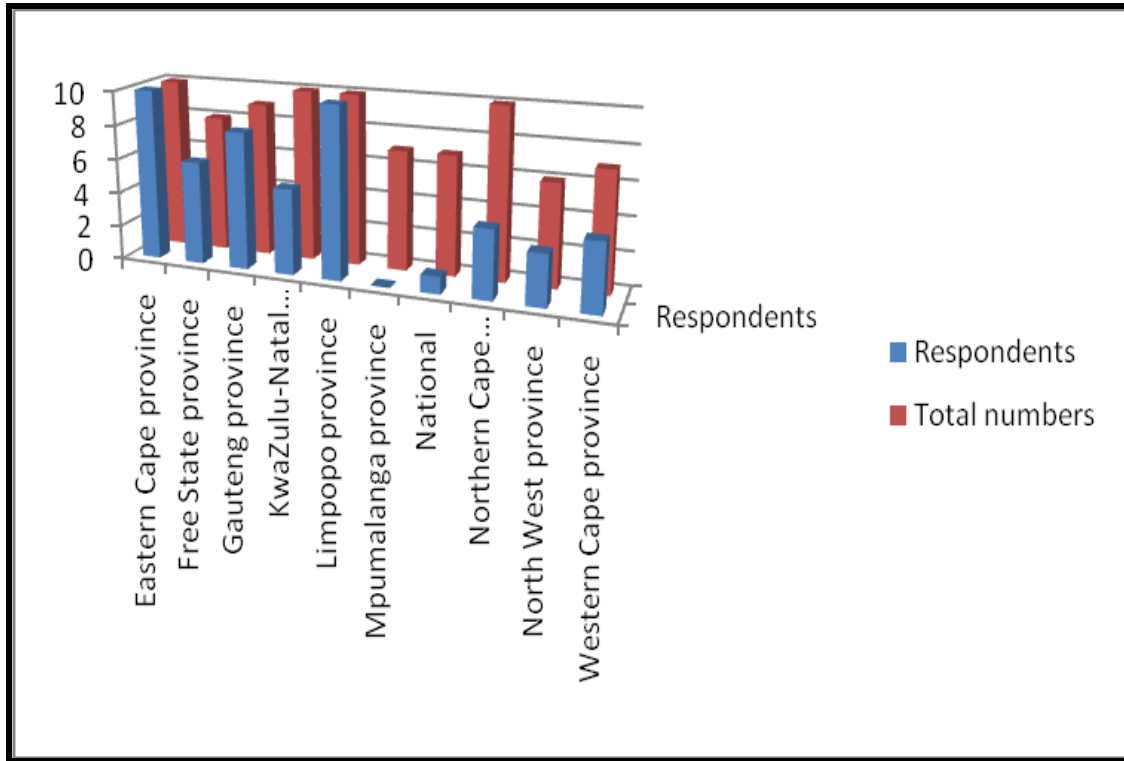
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### 4.5 Response rates

At the date of proposal approval, there were 9 Provincial HPCs and 1 National HPC. The total population size composition and the number of respondents from each HPC are outlined below and illustrated in Figure 4.1:

- 6/8 from Free State province (Senokoane, 2008),
- 8/9 from Gauteng province (Pantshwa, 2008),
- 4/10 from Northern Cape province (Casper, 2008),
- 3/6 from North West province (Selogelo, 2008),
- 10/10 from Limpopo province (Mashamba, 2008),
- 0/7 from Mpumalanga province (Thompson, 2008),
- 4/7 from Western Cape province (Daza, 2008),
- 5/10 from KwaZulu-Natal province (Reddy, 2008),
- 10/10 from Eastern Cape province (Balani, 2008) and
- 1/7 from the National HPC (Majalamba, 2008).

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**Figure 4.1: Responses per Province**

Numerous attempts were made to meet with the Mpumalanga provincial HPC over a six month period but were unsuccessful. They were therefore excluded from this study. There was just one willing participant from the National HPC included in this study.

Since there were 51 completed questionnaires returned, a response rate of 64% was achieved. This is in keeping with the required minimum of 20% (as approved by the Faculty of Health Sciences Research and Ethics Committee, 2007).

Furthermore, according to Louw and Myburgh (2007), a response rate of less than 20% is not generalisable, irrespective of the context. Whereas a 20 - 100% has been shown to be generalisable within the confines of the study criteria when the respondents are a select group of individuals that conform to those criteria only and to the exclusion of others (Caldwell, Coleman, Copp, Bell and Ghazi,

## **Chapter 4: RESULTS AND DISCUSSION**

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2007; Mearns and Reader, 2007; Ross-Adjie, Leslie and Gillman, 2007; Van der Hulst, Van Teijlingen, Bonsel, Eskes, Birnie and Bleker, 2007). On the converse, Lindstroem (2007) asserts that 40 – 100% can be generalised to the entire population that has similar but not necessarily the same characteristics as those in the study if the study criteria is broad enough to incorporate broader spectrums of individuals. However, response rates where a range of 54 – 60% is obtained is considered normative for the purposes of generalisation (Lapane, Quilliam and Hughes, 2007).

Based on the above literature analysis, the 64% response rate of this research study is indeed generalisable to the remainder of the population that did not respond and may well be generalisable to other ministerial portfolio committee members within the government structures of South Africa.

## Chapter 4: RESULTS AND DISCUSSION

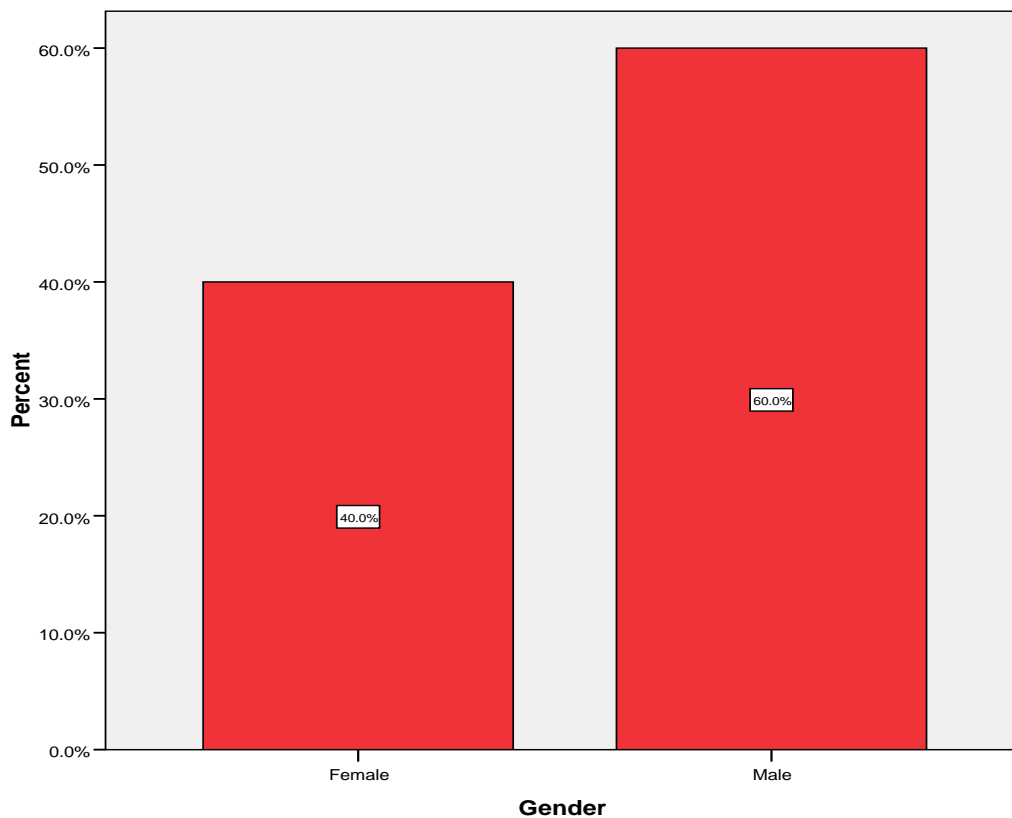
### 4.6. Results

4.6.1 Objective One: To document the demographic data of the respondents.

#### 4.6.1.1 Personal demographic details

##### 4.6.1.1.1 Q 1.4 “Gender”

Figure 4.2 illustrates that sixty percent of the respondents were male.



**Figure 4.2: Gender of respondents**

## Chapter 4: RESULTS AND DISCUSSION

### 4.6.1.1.2 Q 1.5 “What was your age at your last birthday?”

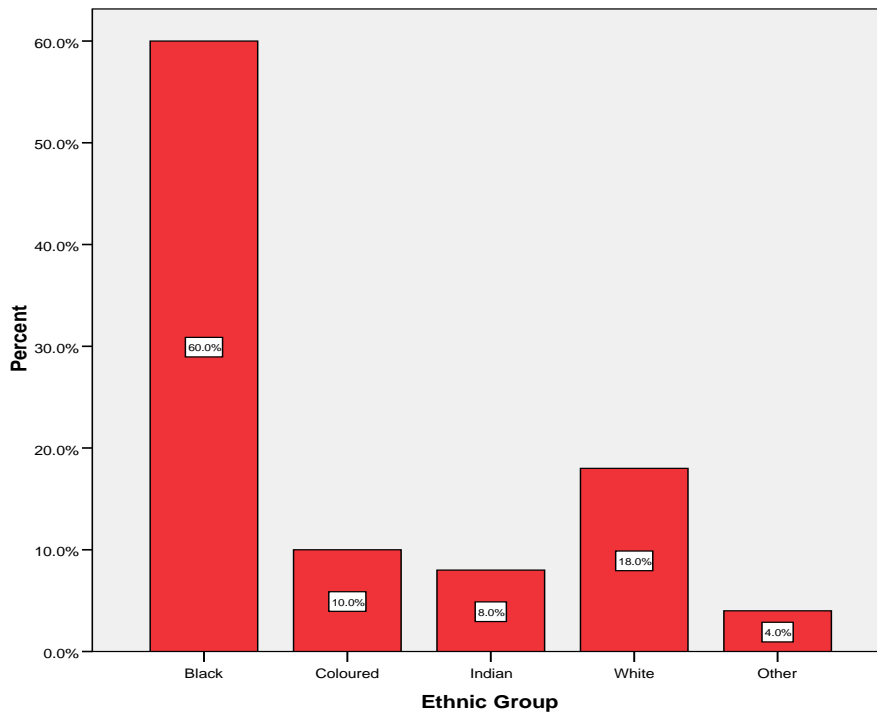
Table 4.1 shows that the mean age of respondents was 48 years with a standard deviation of 11 years and a range from 27 to 75 years.

**Table 4.1: Age of respondents**

N	Valid	45
	Missing	6
Mean		47.93
Standard Deviation		11.136
Minimum		27
Maximum		75

### 4.6.1.1.3 Q 1.6 “Ethnic Group”

Figure 4.3 shows that sixty percent of the sample was Black and 18% were White. The other ethnic groups were represented in smaller proportions.



**Figure 4.3: Ethnic group of respondents**

## Chapter 4: RESULTS AND DISCUSSION

### 4.6.1.1.4 Q 1.7 “How many dependents do you have?”

Table 4.2 shows that the respondents had on average 3 dependants with an interquartile range from 1 to 3 and range from 0 to 9.

**Table 4.2: Number of dependants**

		How many dependents do you have?
N	Valid	46
	Missing	5
Median		3.00
Minimum		0
Maximum		9
Percentiles	25	1.00
	50	3.00
	75	3.00

### 4.6.1.1.5 Q 1.8.1 “Do you have personal medical aid cover?”

Table 4.3 illustrates that the vast majority of respondents had personal medical aid cover (90.2%).

**Table 4.3: Respondents with personal medical aid cover**

		Frequency	Percent
Valid	Yes	46	90.2
	No	4	7.8
	N/A or missing	1	2.0
	Total	51	100.0

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### **4.6.1.1.6 Q 1.8.2 “If you have answered yes to the previous question, please indicate which medical aid carrier you utilize”**

Table 4.4 shows that of the total sample size, 53% used the Parmed medical aid scheme. The other medical aid carriers are also shown in Table 4.4.

**Table 4.4: Medical aid carriers utilized**

		Frequency	Percent
Valid	N/A or missing	9	17.6
	Blue Cross	1	2.0
	Bonitas	4	7.8
	Discovery	5	9.8
	Fedhealth	1	2.0
	Gems	1	2.0
	Medicover	1	2.0
	Medihelp	1	2.0
	Parmed	27	52.9
	Prosano	1	2.0
	Total	51	100.0

### **4.6.1.1.7 Q 1.8.3 “Is chiropractic treatment funded by your medical aid?”**

Table 4.5 shows a large proportion did not know if chiropractic was funded by their medical aid (52.9%). Only 27.1% reported that it was funded by their medical aid.

**Table 4.5: Is chiropractic treatment funded by your medical aid?**

		Frequency	Percent
Valid	Yes	13	25.5
	No	8	15.7
	I don't know	27	52.9
	N/A or missing	3	5.9
	Total	51	100.0

## Chapter 4: RESULTS AND DISCUSSION

### 4.6.1.1.8 Q 1.9 “Languages spoken”

Table 4.6 shows the most common language spoken was English followed by Afrikaans.

**Table 4.6: Spoken languages of respondents**

	First language		Second language		Third language	
	Count	%	Count	%	Count	%
Afrikaans	11	39.3%	10	35.7%	7	25.0%
English	18	37.5%	30	62.5%	0	0%
isiNdebele	1	50.0%	0	0%	1	50.0%
isiSwazi	0	0%	2	100.0%	0	0%
isiXhosa	7	58.3%	5	41.7%	0	0%
isiZulu	4	44.4%	2	22.2%	3	33.3%
Sepedi	7	46.7%	4	26.7%	4	26.7%
SeSotho	6	46.2%	6	46.2%	1	7.7%
seTswana	4	30.8%	5	38.5%	4	30.8%
TshiVenda	2	66.7%	0	0%	1	33.3%
XiTsonga	3	60.0%	0	0%	2	40.0%
Other	0	0%	3	60.0%	2	40.0%

It should be noted that the respondents in some instances (i.e. 12 for the first language and 16 in the second language) indicated that they equate more than one language with a first language (i.e. they felt that English and seTswana were utilised to an equal extent in the home / by the family).

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### 4.6.1.1.9 Q 2.1 “What is your highest qualification achieved?”

Table 4.7 shows that most respondents had a bachelors degree (53%), while there were 5 with a Masters degree and only one respondent had a PhD. There were 8 respondents without tertiary qualifications.

**Table 4.7: Highest qualification**

		Frequency	Percent
Valid	< Grade 12	2	3.9
	Grade 12	6	11.8
	Certificate	1	2.0
	Diploma	9	17.6
	Bachelors degree/medical degree	27	52.9
	Masters degree	5	9.8
	PhD	1	2.0
	Total	51	100.0

## Chapter 4: RESULTS AND DISCUSSION

### 4.6.1.1.10 Q 2.2 “Institution at which highest qualification was obtained”

Table 4.8 shows that the majority of 17.6% of respondents obtained their highest qualification through the University of South Africa (UNISA).

**Table 4.8: Institution at which highest qualification was obtained**

	Frequency	Percent	Valid Percent	Cumulative Percent
UNISA	9	17.6	17.6	17.6
Wits University	7	13.7	13.7	31.4
Missing	3	5.9	5.9	37.3
UKZN	3	5.9	5.9	43.1
University of Limpopo	3	5.9	5.9	49.0
Durban Institute of Technology	2	3.9	3.9	52.9
University of Stellenbosch	2	3.9	3.9	56.9
Bantu High School	1	2.0	2.0	58.8
Bechet College	1	2.0	2.0	60.8
Demana	1	2.0	2.0	62.7
Dr. Block High	1	2.0	2.0	64.7
George Washington University	1	2.0	2.0	66.7
High School	1	2.0	2.0	68.6
Mantutule High School	1	2.0	2.0	70.6
Natal University, Colleges of Medicine of South Africa	1	2.0	2.0	72.5
North West University	1	2.0	2.0	74.5
Northern Illinois University	1	2.0	2.0	76.5
R.A.V	1	2.0	2.0	78.4
St. Francis Xavier, Canada	1	2.0	2.0	80.4
Taung College of Education	1	2.0	2.0	82.4
Tshiwa College of Education	1	2.0	2.0	84.3
Turfloop	1	2.0	2.0	86.3
University of Fort Hare	1	2.0	2.0	88.2
University of Free State	1	2.0	2.0	90.2
University of North	1	2.0	2.0	92.2
University of Port Elizabeth	1	2.0	2.0	94.1
University of the North	1	2.0	2.0	96.1
Wits School of Public Health	1	2.0	2.0	98.0
Woodridge College	1	2.0	2.0	100.0
Total	51	100.0	100.0	

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### 4.6.1.1.11 Q 2.3 “What was the principal focus of your highest qualification?”

Table 4.9 shows that the field of Arts was the principal focus of the highest qualification achieved in 6% of respondents.

**Table 4.9: Arts**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	3	5.9	5.9	5.9
	No	48	94.1	94.1	100.0
	Total	51	100.0	100.0	

Table 4.10 shows that the field of Basic Sciences was the principal focus of the highest qualification achieved in 10% of respondents.

**Table 4.10: Basic Sciences**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	5	9.8	9.8	9.8
	No	46	90.2	90.2	100.0
	Total	51	100.0	100.0	

Table 4.11 shows that the field of Commerce was the principal focus of the highest qualification achieved in 14% of respondents.

**Table 4.11: Commerce**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	7	13.7	13.7	13.7
	No	44	86.3	86.3	100.0
	Total	51	100.0	100.0	

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Table 4.12 shows that the field of Engineering and the built environment was the principal focus of the highest qualification achieved in 6% of respondents.

**Table 4.12: Engineering and the built environment**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	3	5.9	5.9	5.9
	No	48	94.1	94.1	100.0
	Total	51	100.0	100.0	

Table 4.13 shows that the field of Health Sciences was the principal focus of the highest qualification achieved in 26% of respondents.

**Table 4.13: Health sciences**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	13	25.5	25.5	25.5
	No	38	74.5	74.5	100.0
	Total	51	100.0	100.0	

Table 4.14.1 shows that 51% of respondents selected 'other' fields as the principal focus of their highest qualification achieved.

**Table 4.14.1: Other**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	26	51.0	51.0	51.0
	No	25	49.0	49.0	100.0
	Total	51	100.0	100.0	

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Table 4.14.2 shows that of the 51% of respondents who selected 'other' fields as the principal focus of their highest qualification achieved, 7.8% specified training in the fields of education and 5.9% in law.

**Table 4.14.2: Specify**

	Frequency	Percent	Valid Percent	Cumulative Percent
	28	54.9	54.9	54.9
Education	4	7.8	7.8	62.7
Law	3	5.9	5.9	68.6
Political Science	2	3.9	3.9	72.5
Anatomy curative care	1	2.0	2.0	74.5
Business	1	2.0	2.0	76.5
Economics	1	2.0	2.0	78.4
Financial Management	1	2.0	2.0	80.4
History, Education	1	2.0	2.0	82.4
HR Management	1	2.0	2.0	84.3
Management	1	2.0	2.0	86.3
Media	1	2.0	2.0	88.2
Medicine	1	2.0	2.0	90.2
Music, Clinical Psychology	1	2.0	2.0	92.2
Politics, Management	1	2.0	2.0	94.1
Psychology	1	2.0	2.0	96.1
Rural Development Planning	1	2.0	2.0	98.0
Social Science	1	2.0	2.0	100.0
Total	51	100.0	100.0	

### **4.6.1.1.12 Q 2.4 “Have you achieved any other qualifications within the health care field?”**

The majority of 30% of the 19.6% of respondents who answered this question listed a Nursing Diploma qualification.

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### 4.6.1.1.13 Summary of personal demographic details

In this study the majority of respondents were Black, with an average age of 48 years (as illustrated by Figure 4.2, Table 4.1 and Figure 4.3 respectively). The most prominent language spoken was English (Table 4.6), which concurs with the fact that the majority of respondents were noted to have obtained a higher education qualification (certificate, diploma or degree) which are mostly lectured in the English language in South Africa (Libhaber and Greene, 2006). In this context a Bachelors degree qualification (Table 4.7) from UNISA (Table 4.8) related to the field of Arts (Table 4.9) was the most common.

In terms of social responsibility, the respondents had on average 3 dependents (Table 4.2) and in line with the requirements of the position they held in legislature, the majority were members of Parmed medical aid scheme (Tables 4.3 and 4.4), an exclusive medical aid scheme for members of parliament and legislature (Maharaj, 2009). Notwithstanding this the respondents who belonged to a medical aid scheme, were not certain if chiropractic treatment was covered by their medical aid (Table 4.5).

When assessing this broad outline of the respondents in terms of the Neiss classification (Hayes, 1994; Robbins, 1996; Berg *et al.*, 1999), it becomes apparent that the following factors are detractors in terms of the respondents having a likelihood for exposure to the chiropractic profession:

- **Ethnicity:** According to Dreyer (2004), social considerations in terms of health care differences that have traditionally been associated with particular cultures which may limit access to health care practices outside of that culture (Postman *et al.*, 1948), thus it is expected that there may be a decreased likelihood of exposure of the respondents to chiropractic. This mirrors the fact that chiropractic is under-appreciated by the Black

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population who don't have any notion of what chiropractic is (Myburgh and Mouton, 2007). This is supported generally in the literature by Philbin *et al.*, (2008) who indicates that culture and the resultant political environment based on that culture has a strong influence on the manner in which members of a particular group react to different constructs.

- Gender: It has been found that women are more likely to utilise complementary alternative therapies than men (MacLennan and Wilson, 1996; National Centre for Complementary and Alternative Medicine, 2004; Tatalias, 2006). Thus it is expected that the respondents in this study will have a lesser knowledge of chiropractic profession as a result of their relative likelihood of utilising complementary alternative therapies as men.

Conversely, the following enablers are present to expect a higher likelihood for exposure to the chiropractic profession:

- Age: it was found in the literature that older patients were more likely to utilise complementary alternative therapies as compared to their younger counterparts (Kayne, Beattie and Reeves, 1999; Menniti-Ippolito *et al.*, 2002; Reid, 2002; Tatalias, 2006). Thus it would be expected that the respondents in this study have a slightly higher than average chance of having been exposed to the chiropractic profession and thus it is expected that the results would potentially reflect this.
- A higher education degree: Education has been associated with the a higher use of traditional and complementary alternative medicine use (MacLennan and Wilson, 1996; Astin, 1998; Menniti-Ippolito *et al.*, 2002; Reid, 2002; Haertela and Volgera, 2004; National Center for Complementary and Alternative Medicine, 2004; Tatalias, 2006), therefore it is expected that respondents in this study have a higher tendency towards the use of chiropractic as a complimentary alternative medicine (World Health Organisation, 2008; Durant *et al.*, 2001). This is further

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supported by the fact that 80% of Africans (being of the Black population) use traditional medicines (About South Africa, 2007).

- Having employment has furthermore been directed as a factor that is linked to increased use of complementary alternative therapy (MacLennan and Wilson, 1996; Astin, 1998; Thomas and Coleman, 2004). In the instance of the respondents in this study, all have full time employment within their respective health portfolio committees and thus also access to financial and health care resources than most of the general public making them more likely to have been exposed to chiropractic as a complementary alternative health care profession (Thomas and Coleman, 2004).
- The English language: The chiropractic profession was developed principally in the western world (United States of America and Canada) (Keating, 2005) and therefore has a predominance of colleges within English speaking domains (Chiropractic Diplomatic Corps, 2007). Thus it stands to reason that there is a predominance of English literature related to chiropractic. This therefore excludes any reader not familiar with the English language and also presupposes that the reader is familiar with the cultural context in which the profession developed (Philbin *et al.*, 2008). Thus it is expected that because the respondents in this study are expected to have been able to access the literature regarding chiropractic (they are predominantly able to speak English), however this is stated with caution as the respondents have the modifying effect of culture (Philbin *et al.*, 2008).
- Increased numbers of dependants: Having more dependents increased an individual's chance of exposure to chiropractic as one or more of the dependents may have learnt about chiropractic or experienced chiropractic treatment or knows of someone who has had chiropractic treatment. In addition there is also an indication that their social status is elevated in that they are able to provide for increased numbers of

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dependants, thus supporting the financial and employment indicators that increase the likelihood of exposure to complementary alternative medicine (Kayne, Beattie and Reeves, 1999; Thomas and Coleman, 2004). In addition the use of complementary alternative medicines have also been noted to be higher in those with paediatric patients (dependants) (Crawford *et al.*, 2006; Hughes and Wingard, 2006; Lim *et al.*, 2006; Smith *et al.*, 2006; Wilson *et al.*, 2007; Low *et al.*, 2008).

- Belonging to a medical aid scheme: 18% of the general population are members of medical schemes (About South Africa, 2007). There are currently about 200 Medical Aid Schemes, most of which (approximately 98 %) cover chiropractic care in part or in whole, depending on the extent of coverage of one's payment plan (Chiropractic Association of South Africa, 2008). This is another socio-economic indicator or financial stability or employment stability and therefore supports the increased likelihood of exposure to the chiropractic profession (MacLennan and Wilson, 1996; Astin, 1998 and Thomas and Coleman, 2004).

It is therefore expected that the members of the honourable members should have at minimum an above average knowledge and thus a good perception of the chiropractic profession, based on the fact that there are more factors that support the possibility of their exposure to the chiropractic profession as opposed to them not being exposed (Blydenburg and Freedman 1988; Jamison, 1995). However this may be affected by utilisation of the profession as utilisation and knowledge "gaps" have also been shown to affect the perception of the profession (Sanchez, 1991). Additionally it must also be considered that the allopathic profession remains sceptical of chiropractic (Jamison, 1995 and Breen *et al.*, 2000) and that the respondents are principally of allopathic origin.

## Chapter 4: RESULTS AND DISCUSSION

### 4.6.1.2 HPC demographic details

#### 4.6.1.2.1 Q 1.1 “Please indicate which Health Portfolio Committee (HPC) you serve on”

Table 4.15 illustrates that the majority of respondents were from the Eastern Cape and Limpopo provinces (19.6% each), followed by the Gauteng (15.7%) and Free State (11.8%) provinces.

**Table 4.15: Health Portfolio Committee (HPC) respondents serve on**

		Frequency	Percent
Valid	Eastern Cape	10	19.6
	Free State	6	11.8
	Gauteng	8	15.7
	KZN	5	9.8
	Limpopo	10	19.6
	National	1	2.0
	Northern Cape	4	7.8
	North West	3	5.9
	Western Cape	4	7.8
	Total	51	100.0

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### 4.6.1.2.2 Q 1.2 “For how long have you served on the HPC?”

Table 4.16 illustrates the median number of months that respondents had served on the HPC was 48 months.

**Table 4.16: Number of months served on HPC**

		For how long have you served on the Health Portfolio Committee? (in months)
N	Valid	44
	Missing	7
Median		48
Minimum		3
Maximum		180
Percentiles	25	24
	50	48
	75	87

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### 4.6.1.2.3 Q 1.3 “For how long have you been involved at municipal/provincial/national health care oversight?”

Table 4.17 shows that the median time they had been involved with health care oversight was also 48 months.

**Table 4.17: Respondents’ length of involvement with HPC and health care oversight**

		For how long have you been involved at municipal/provincial/national level health care oversight? (in months)
N	Valid	44
	Missing	7
Median		48
Minimum		6
Maximum		240
Percentiles	25	33
	50	48
	75	117

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### 4.6.1.2.4 Q 1.10 “Whose responsibility is it to update members of the HPCs with respect to advances in health care research?”

Table 4.18 shows that 47% of respondents relied on a dedicated research unit to update members on advances in health care research.

**Table 4.18: Dedicated research unit (affiliated to HPC)**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	24	47.1	47.1	47.1
	No	27	52.9	52.9	100.0
	Total	51	100.0	100.0	

Table 4.19 shows that 35% of respondents relied on the medical research council to update members on advances in health care research.

**Table 4.19: Medical research council**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	18	35.3	35.3	35.3
	No	33	64.7	64.7	100.0
	Total	51	100.0	100.0	

Table 4.20 shows that 15% of respondents relied on the HPC secretary to update members on advances in health care research.

**Table 4.20: HPC Secretary**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	8	15.7	15.7	15.7
	No	43	84.3	84.3	100.0
	Total	51	100.0	100.0	

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Table 4.21 shows that 28% of respondents took personal responsibility in updating themselves on advances in health care research.

**Table 4.21: Self**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	14	27.5	27.5	27.5
	No	37	72.5	72.5	100.0
	Total	51	100.0	100.0	

Table 4.22.1 shows that 16% of respondents relied on other means of updating themselves on advances in health care research.

**Table 4.22.1: Other**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	8	15.7	15.7	15.7
	No	43	84.3	84.3	100.0
	Total	51	100.0	100.0	

Table 4.22.2 shows that respondents relied on the department of health and other affiliations in updating members on advances in health care research.

**Table 4.22.2: Specify**

	Frequency	Percent	Valid Percent	Cumulative Percent
	44	86.7	86.7	86.7
Association	1	1.9	1.9	88.6
Community Members	1	1.9	1.9	90.5
Department of Health	1	1.9	1.9	92.4
Management of Health Department	1	1.9	1.9	94.3
Research	1	1.9	1.9	96.2
Research Unit	1	1.9	1.9	98.1
Surf internet	1	1.9	1.9	100.0
Total	51	100.0	100.0	

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Table 4.23 shows that 4% of respondents found this question not applicable.

**Table 4.23: Not applicable**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	2	3.9	3.9	3.9
	No	49	96.1	96.1	100.0
	Total	51	100.0	100.0	

### 4.6.1.2.5 Q 1.11.1 “Do you read chiropractic journals?”

Table 4.24 shows that 10% of respondents read chiropractic journals whilst the majority of 90% of respondents did not read any chiropractic journals.

**Table 4.24: Do you read any chiropractic journals?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	5	9.8	10.0	10.0
	No	45	88.2	90.0	100.0
	Total	50	98.0	100.0	
Missing	System	1	2.0		
Total		51	100.0		

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### 4.6.1.2.6 Q 1.11.2 “If you answered yes to the precious question, please indicate the subscriber”

Table 4.25 shows that of the 10% of respondents who read chiropractic journals, 8% of them subscribed to these journals themselves.

**Table 4.25: Self**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	4	7.8	8.0	8.0
	No	46	90.2	92.0	100.0
	Total	50	98.0	100.0	
Missing	System	1	2.0		
Total		51	100.0		

Table 4.26 shows that of the 10% of readers of chiropractic journals, 4% of the respondents subscribed to these journals through the HPC on which they served.

**Table 4.26: Through HPC**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	2	3.9	4.0	4.0
	No	48	94.1	96.0	100.0
	Total	50	98.0	100.0	
Missing	System	1	2.0		
Total		51	100.0		

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Table 4.27.1 shows that of the 10% of readers of chiropractic journals, 4% of the respondents subscribed to these journals through other affiliations.

**Table 4.27.1: Through other affiliations (e.g. tertiary education institutions)**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	2	3.9	4.0	4.0
	No	48	94.1	96.0	100.0
	Total	50	98.0	100.0	
Missing	System	1	2.0		
Total		51	100.0		

Table 4.27.2 shows that of the 10% of readers of chiropractic journals, 4% of the respondents who subscribed to these journals through other affiliations, such as through the South African Medical Journal (2%) and the Wits medical school (2%).

**Table 4.27.2: Specify**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		49	96.2	96.2	96.2
	South African Medical Journal	1	1.9	1.9	98.1
	Wits medical school	1	1.9	1.9	100.0
	Total	51	100.0	100.0	

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### 4.6.1.2.7 Q 4.14 “How do you get information about chiropractic?”

Table 4.28 shows that the 43% majority of respondents received information regarding chiropractic from their friends, colleagues, doctors etc.

**Table 4.28: From friends, colleagues, doctors etc.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	22	43.1	43.1	43.1
	No	29	56.9	56.9	100.0
	Total	51	100.0	100.0	

Table 4.29 shows that 14% of respondents received information regarding chiropractic from the government research department.

**Table 4.29: From government research department**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	7	13.7	13.7	13.7
	No	44	86.3	86.3	100.0
	Total	51	100.0	100.0	

Table 4.30 shows that 4% of respondents received information regarding chiropractic from the government statistics department.

**Table 4.30: From government statistics department (e.g. HSRC)**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	2	3.9	3.9	3.9
	No	49	96.1	96.1	100.0
	Total	51	100.0	100.0	

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Table 4.31 shows that 24% of respondents received information regarding chiropractic from internet websites.

**Table 4.31: From internet websites**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	12	23.5	23.5	23.5
	No	39	76.5	76.5	100.0
	Total	51	100.0	100.0	

Table 4.32 shows that 22% of respondents received information regarding chiropractic from medical journals or research.

**Table 4.32: From medical journals or research**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	11	21.6	21.6	21.6
	No	40	78.4	78.4	100.0
	Total	51	100.0	100.0	

Table 4.33 shows that 18% of respondents received information regarding chiropractic from family/friends who had been treated by a chiropractor.

**Table 4.33: From my family/friends who have been treated by a  
chiropractor**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	9	17.6	17.6	17.6
	No	42	82.4	82.4	100.0
	Total	51	100.0	100.0	

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Table 4.34 shows that 18% of respondents received information regarding chiropractic from being treated by a chiropractor themselves.

**Table 4.34: From being treated by a chiropractor**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	9	17.6	17.6	17.6
	No	42	82.4	82.4	100.0
	Total	51	100.0	100.0	

Table 4.35 shows that 12% of respondents received information regarding chiropractic from reading about it in the media.

**Table 4.35: From reading about chiropractic in the media  
(e.g. magazine/newspaper/flier)**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	6	11.8	11.8	11.8
	No	45	88.2	88.2	100.0
	Total	51	100.0	100.0	

Table 4.36 shows that 8% of respondents received information regarding chiropractic from doing their own research.

**Table 4.36: From doing my own research**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	4	7.8	7.8	7.8
	No	47	92.2	92.2	100.0
	Total	51	100.0	100.0	

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Table 4.37 shows that 4% of respondents received information regarding chiropractic from policy documents and legislation.

**Table 4.37: From policy documents and legislation**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	2	3.9	3.9	3.9
	No	49	96.1	96.1	100.0
	Total	51	100.0	100.0	

Table 4.38 shows that 34% of respondents had not received any information regarding chiropractic.

**Table 4.38: I have not received any information about chiropractic**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	17	33.3	34.0	34.0
	No	33	64.7	66.0	100.0
	Total	50	98.0	100.0	
Missing	System	1	2.0		
Total		51	100.0		

Table 4.39.1 shows that 6% of respondents received information regarding chiropractic from other sources.

**Table 4.39.1: Other**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	3	5.9	6.1	6.1
	No	46	90.2	93.9	100.0
	Total	49	96.1	100.0	
Missing	System	2	3.9		
Total		51	100.0		

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Table 4.39.2 shows that 2% of respondents received information regarding chiropractic from an orthopaedic surgeon.

**Table 4.39.2: Specify**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		49	96.2	96.2	96.2
	Not at all	1	1.9	1.9	98.1
	Orthopaedic surgeon	1	1.9	1.9	100.0
	Total	51	100.0	100.0	

### **4.6.1.2.8 Q 5.9 “Have you encountered any promotional material related to chiropractic?”**

Table 4.40 shows that 88% of respondents had not encountered any promotional material related to chiropractic. 12% of respondents had encountered some form of chiropractic promotional material.

**Table 4.40: Have you encountered any promotional material related to chiropractic**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	6	11.8	11.8	11.8
	No	45	88.2	88.2	100.0
	Total	51	100.0	100.0	

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Table 4.41 shows that of the 12% minority of respondents who had encountered some chiropractic promotional material, material obtained at consulting rooms and pharmacies were noted.

**Table 4.41: If yes, Please elaborate on what promotional material you have encountered**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		46	90.5	90.5	90.5
	At rooms	1	1.9	1.9	92.4
	Booklets at Pharmacy	1	1.9	1.9	94.3
	Diabetic Pamphlet encouraging chiropractic treatment	1	1.9	1.9	96.2
	I don't know	1	1.9	1.9	98.1
	Various brochures	1	1.9	1.9	100.0
	Total	51	100.0	100.0	

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### 4.6.1.2.9 Q 1.12 “In your opinion, do advances in medical technology play an important role in performing your mandate as part of the HPC?”

Table 4.42 shows that of the 80% of respondents believed advances in medical technology played an important role in performing their mandate as part of the HPC on which they serve.

**Table 4.42: In your opinion, do advances in medical technology play an important role in performing your mandate as part of the HPC?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	41	80.4	80.4	80.4
	No	6	11.8	11.8	92.2
	Total	47	92.2	92.2	-
Missing	System	4	7.8	7.8	100.0
Total		51	100.0	100.0	

### 4.6.1.2.10 Q 1.13 “What is/are the focus/foci of your mandate as part of the HPC?”

Table 4.43 shows that 36% of respondents focussed on chronic/communicable diseases as part of their mandate on their HPC.

**Table 4.43: Chronic diseases or communicable diseases**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	18	35.3	36.0	36.0
	No	32	62.7	64.0	100.0
	Total	50	98.0	100.0	
Missing	System	1	2.0		
Total		51	100.0		

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Table 4.44 shows that 16% of respondents focussed on cost regulation within national health as part of their mandate on their HPC.

**Table 4.44: Cost regulation within national health**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	8	15.7	15.7	15.7
	No	42	82.4	82.3	98.0
	Total	50	98.0	100.0	-
Missing	System	1	2.0	2.0	100.0
Total		51	100.0	100.0	

Table 4.45 shows that 36% of respondents focussed on drug intervention health care as part of their mandate on their HPC.

**Table 4.45: Drug intervention health care**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	18	35.3	36.0	36.0
	No	32	62.7	64.0	100.0
	Total	50	98.0	100.0	
Missing	System	1	2.0		
Total		51	100.0		

Table 4.46 shows that 42% of respondents focussed on education as part of their mandate on their HPC.

**Table 4.46: Education**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	21	41.2	42.0	42.0
	No	29	56.9	58.0	100.0
	Total	50	98.0	100.0	
Missing	System	1	2.0		
Total		51	100.0		

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Table 4.47 shows that 42% of respondents focussed on emergency health care as part of their mandate on their HPC.

**Table 4.47: Emergency health care**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	21	41.2	42.0	42.0
	No	29	56.9	58.0	100.0
	Total	50	98.0	100.0	
Missing	System	1	2.0		
Total		51	100.0		

Table 4.48 shows that 54% of respondents focussed on HIV/AIDS and related health care as part of their mandate on their HPC.

**Table 4.48: HIV/AIDS and related health care**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	27	52.9	54.0	54.0
	No	23	45.1	46.0	100.0
	Total	50	98.0	100.0	
Missing	System	1	2.0		
Total		51	100.0		

Table 4.49 shows that 20% of respondents focussed on various issues dealing with the Traditional Healers Council as part of their mandate on their HPC.

**Table 4.49: Issues dealing with Traditional Healers Council**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	10	19.6	20.0	20.0
	No	40	78.4	80.0	100.0
	Total	50	98.0	100.0	
Missing	System	1	2.0		
Total		51	100.0		

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Table 4.50 shows that 16% of respondents focussed on various issues dealing with the Allied Health Professions Council as part of their mandate on their HPC.

**Table 4.50: Issues dealing with Allied Health Professions Council**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	8	15.7	16.0	16.0
	No	42	82.4	84.0	100.0
	Total	50	98.0	100.0	
Missing	System	1	2.0		
Total		51	100.0		

Table 4.51 shows that 24% of respondents focussed on various issues dealing with the Health Professions Council as part of their mandate on their HPC.

**Table 4.51: Issues dealing with Health Professions Council**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	12	23.5	24.0	24.0
	No	38	74.5	76.0	100.0
	Total	50	98.0	100.0	
Missing	System	1	2.0		
Total		51	100.0		

Table 4.52 shows that 50% of respondents focussed on various issues dealing with legislature governing health care as part of their mandate on their HPC.

**Table 4.52: Legislative issues related to health**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	25	49.0	50.0	50.0
	No	25	49.0	50.0	100.0
	Total	50	98.0	100.0	
Missing	System	1	2.0		
Total		51	100.0		

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Table 4.53 shows that 14% of respondents focussed on the Medical Schemes Council as part of their mandate on their HPC.

**Table 4.53: Medical Schemes Council**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	7	13.7	14.0	14.0
	No	43	84.3	86.0	100.0
	Total	50	98.0	100.0	
Missing	System	1	2.0		
Total		51	100.0		

Table 4.54 shows that 60% of respondents focussed on primary health care as part of their mandate on their HPC.

**Table 4.54: Primary health care**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	30	58.8	60.0	60.0
	No	20	39.2	40.0	100.0
	Total	50	98.0	100.0	
Missing	System	1	2.0		
Total		51	100.0		

Table 4.55 shows that 36% of respondents focussed on preventative health care as part of their mandate on their HPC.

**Table 4.55: Preventative health care**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	18	35.3	36.0	36.0
	No	32	62.7	64.0	100.0
	Total	50	98.0	100.0	
Missing	System	1	2.0		
Total		51	100.0		

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Table 4.56 shows that 20% of respondents focussed on private health care as part of their mandate on their HPC.

**Table 4.56: Private health care**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	10	19.6	20.0	20.0
	No	40	78.4	80.0	100.0
	Total	50	98.0	100.0	
Missing	System	1	2.0		
Total		51	100.0		

Table 4.57 shows that 44% of respondents focussed on public health care as part of their mandate on their HPC.

**Table 4.57: Public health care**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	22	43.1	44.0	44.0
	No	28	54.9	56.0	100.0
	Total	50	98.0	100.0	
Missing	System	1	2.0		
Total		51	100.0		

Table 4.58 shows that 24% of respondents focussed on quality assurance within health care as part of their mandate on their HPC.

**Table 4.58: Quality assurance within health care**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	12	23.5	24.0	24.0
	No	38	74.5	76.0	100.0
	Total	50	98.0	100.0	
Missing	System	1	2.0		
Total		51	100.0		

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Table 4.59 shows that 24% of respondents focussed on rehabilitative health care as part of their mandate on their HPC.

**Table 4.59: Rehabilitative health care**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	12	23.5	24.0	24.0
	No	38	74.5	76.0	100.0
	Total	50	98.0	100.0	
Missing	System	1	2.0		
Total		51	100.0		

Table 4.60 shows that 20% of respondents focussed on secondary level health care as part of their mandate on their HPC.

**Table 4.60: Secondary level health care**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	10	19.6	20.0	20.0
	No	40	78.4	80.0	100.0
	Total	50	98.0	100.0	
Missing	System	1	2.0		
Total		51	100.0		

Table 4.61 shows that 14% of respondents focussed on the statistical management of health care as part of their mandate on their HPC.

**Table 4.61: Statistical management of health care**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	7	13.7	14.0	14.0
	No	43	84.3	86.0	100.0
	Total	50	98.0	100.0	
Missing	System	1	2.0		
Total		51	100.0		

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Table 4.62 shows that 20% of respondents focussed on the statistical monitoring of health care as part of their mandate on their HPC.

**Table 4.62: Statistical monitoring of health care**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	10	19.6	20.0	20.0
	No	40	78.4	80.0	100.0
	Total	50	98.0	100.0	
Missing	System	1	2.0		
Total		51	100.0		

Table 4.63 shows that 18% of respondents focussed on tertiary level health care as part of their mandate on their HPC.

**Table 4.63: Tertiary level health care**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	9	17.6	18.0	18.0
	No	41	80.4	82.0	100.0
	Total	50	98.0	100.0	
Missing	System	1	2.0		
Total		51	100.0		

Table 4.64.1 shows that 10% of respondents focussed on other aspects as part of their mandate on their HPC.

**Table 4.64.1: Other**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	5	9.8	10.0	10.0
	No	45	88.2	90.0	100.0
	Total	50	98.0	100.0	
Missing	System	1	2.0		
Total		51	100.0		

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Table 4.64.2 shows that of the 10% of respondents who focussed on other aspects as part of their mandate on their HPC, 2% of them specified focussing on the complete medical legal, infrastructure, health department oversight role or health education in schools.

**Table 4.64.2: Specify**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		47	92.4	92.4	92.4
	Complete medical legal aspect	1	1.9	1.9	94.3
	Infrastructure	1	1.9	1.9	96.2
	Oversight over Health Department	1	1.9	1.9	98.1
	School Health Education	1	1.9	1.9	100.0
	Total	51	100.0	100.0	

### **4.6.1.2.11 Summary of HPC demographic details**

From the results it would seem that the most respondents served on the Eastern Cape or Limpopo provincial HPC (Table 4.15). This is significant in that these are areas that are traditionally underrepresented in terms of the chiropractic profession (Engelbrecht, 2009). This would mitigate against the respondents having had access to chiropractors and therefore gaining an understanding of the chiropractic profession. This is congruent with the literature that indicates that geographic access is directly related to the increased utilisation of complementary alternative medicines (and thus chiropractic) (Ernst and White, 2000; Lewith *et al.*, 2001; Bodeker, 2001; McFarland *et al.*, 2002; Bodeker and Kronenberg, 2002; Wojcowski *et al.*, 2006; Hughes and Wingard, 2006). This result further supports the ethnic as well as the age detractors of perception and knowledge of the chiropractic profession.

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In contrast to this, the average time served on the HPC was 48 months (i.e. 4 years) (Table 4.16), which implies that the respondents should have had a consistent and wide exposure to the various health professions that fall within the domain of the Department of Health in South Africa (viz. Health Professions Council, Allied Health Professions Council and Traditional Healers' Council Professions). However it could also be argued that the allopathic tendency to be suspicious of non-allopathic professions could have played a role in hampering exposure to all health professions – especially in the South African context (Till, 1997; Brantingham and Snyder, 1999; World Health Organisation, 2008).

This latter contribution to the lack of exposure of the respondents to chiropractic information may be supported by the fact that the majority of respondents relied on a dedicated research units to update them with respect to advances in health care research (Table 4.18). This statement is based on the fact that research units are ideally driven by the HPC or elected honourable members/task teams who look at defined areas of health development or programmes that are required to be developed for the health care system within the country (Hupkes, 1990; World Health Organisation, 2008). This development has led to a skewing of the development of many health care systems in many countries including sub-Saharan Africa according to Dans, Dans, Oxman, Robinson, Acuin, Tugwell, Dennis and Kang, (2007) and Xu, Evans, Carnn, Aguilar-Rivera, Musgrove and Evans, (2007) and thus it is highly likely that this environment has also led to the skewing of the priorities that were given to the dedicated research units and therefore also the information provided to the respondents.

This is further supported by the fact that only a few respondents read chiropractic journals (Table 4.24), with 8% of those respondents who did, being subscribers themselves (Table 4.25). This indicates that these respondents did so out of their own interest and not for purposes of their HPC affiliation. It is therefore interesting to note that even though from a demographic point of view

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(Section 4.6.1.1) there were many enablers to the respondents knowing about chiropractic, it would seem that this did not translate to them seeking more information outside that of which they deemed necessary for purpose of work. An example of this is the primary focus on HIV/AIDS (54%) (Table 4.4) related health care, a field in which chiropractors are not deemed to be qualified (Gaumer *et al.*, 2002; Hunter, 2004; Louw, 2005; Kew, 2006; Van As, 2005; Myburgh and Louw, 2007; Rattan, 2007; Butt, 2008; Cloete, 2008; Maharaj, 2008; Naidoo, 2008) even though they are classified as primary contact practitioners (Allied Health Professions Act of 63 of 1982 – AHPCSA, 2007). In addition many of the respondents focussed on primary health care (60%) (Table 4.54), which was defined by the Hupkes (1990) and World Health Organisation (2008) as principally disease care through the application of health care programmes. Therefore the exclusion of professions and health care systems occurs due to the fact that the programme structures are predetermined and thus governed with little leeway for the respondents to work outside of the paradigm within which they function, resulting in a decreased exposure to complementary alternative professions and traditional healing professions (WHO, 2008).

In keeping with this evidence, 43% majority of respondents received information regarding chiropractic from their friends, colleagues and doctors (Table 4.28) as opposed to official channels via the HPC. This almost re-enforces the fact that the chiropractic profession is not legitimised by the governing paradigm as the information is secondary in nature. This stance is re-enforced in that it is also seen that 12% of respondents had encountered some chiropractic promotional material (Table 4.40) either in consulting rooms or at pharmacies (Table 4.41).

Outside of the above discussion it is seen that the majority of respondents (87%) believed that advances in medical technology played an important role in performing their mandate as part of the HPC (Table 4.42). This would be an important point for the chiropractic profession if the profession utilised

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technologies that advance with time (e.g. imaging, blood testing). However, in contrast, the chiropractic profession emphasises treatment by hand and thus this aspect of the profession necessitates (at least from the vantage point of the respondents) that chiropractic falls to the bottom of the list of priorities as techniques adopted by chiropractors are rarely technologically based.

It is therefore expected that the members of the HPC may have an above average knowledge and thus a good perception of the chiropractic profession.

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### 4.6.1.3 Personal interaction with chiropractors

#### 4.6.1.3.1 Q 5.8 “How many practicing chiropractors are you acquainted with?”

Table 4.65 shows that the majority of 67% of respondents had not been acquainted with any chiropractors.

**Table 4.65: How many practicing chiropractors are you acquainted with?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	None	34	66.7	68.0	68.0
	1	9	17.6	18.0	86.0
	2	2	3.9	4.0	90.0
	3-5	4	7.8	8.0	98.0
	>10	1	2.0	2.0	100.0
	Total	50	98.0	100.0	
Missing	System	1	2.0		
Total		51	100.0		

#### 4.6.1.3.2 Q 3.1 “Have you consulted with a chiropractor before?”

As illustrated in Table 4.66, 14% of respondents had consulted with a chiropractor before whilst the majority of respondents (86%) had not done so.

**Table 4.66: Have you consulted with a chiropractor before?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	7	13.7	14.0	14.0
	No	43	84.3	86.0	100.0
	Total	50	98.0	100.0	
Missing	System	1	2.0		
Total		51	100.0		

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Table 4.67 shows that of the 14% of respondents who had consulted with a chiropractor, 4% had received treatment 7 years ago i.e. 2002.

**Table 4.67: When did last consult take place?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		45	88.1	88.1	88.1
	1 year ago	1	2.0	2.0	90.1
	2002	2	3.9	3.9	94.0
	2005	1	2.0	2.0	96.0
	2006	1	2.0	2.0	98.0
	July 2008	1	2.0	2.0	100.0
	Total	51	100.0	100.0	

Table 4.68 shows that of the 14% of respondents who had consulted with a chiropractor, conditions addressed included back pain, neck complaints and calluses.

**Table 4.68: For what condition was the last consultation?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		46	90.2	90.2	90.2
	Back	1	2.0	2.0	92.2
	Back Pain	1	2.0	2.0	94.1
	Calluses	1	2.0	2.0	96.1
	Massage	1	2.0	2.0	98.0
	Neck	1	2.0	2.0	100.0
	Total	51	100.0	100.0	

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Table 4.69 shows that of the 14% of respondents who had consulted with a chiropractor, 100% of them were satisfied with the treatment.

**Table 4.69: Was the treatment satisfactory?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	7	13.7	100.0	100.0
Missing	System	44	86.3		
Total		51	100.0		

### 4.6.1.3.3 Q 3.2 “Have your children consulted with a chiropractor before?”

As illustrated in Table 4.70, just 2% of respondents’ children had consulted with a chiropractor, whilst 96% of respondents’ children had not received chiropractic treatment.

**Table 4.70: Have your children consulted with a chiropractor before?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	1	2.0	2.0	2.0
	No	49	96.1	98.0	100.0
	Total	50	98.0	100.0	
Missing	System	1	2.0		
Total		51	100.0		

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Table 4.71 shows that of the 2% of respondents' children who had consulted with a chiropractor, such consultation took place over a year ago.

**Table 4.71: When did last consult take place?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		50	98.0	98.0	98.0
	Over 1 yr ago	1	2.0	2.0	100.0
	Total	51	100.0	100.0	

Table 4.72 shows that of the 2% of respondents' children who had consulted with a chiropractor, conditions addressed included 'growing pains'.

**Table 4.72: For what condition was the last consultation?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		50	98.0	98.0	98.0
	Growing pains	1	2.0	2.0	100.0
	Total	51	100.0	100.0	

Table 4.73 shows that of the 2% of respondents' children who had consulted with a chiropractor, 100% of respondents regarded the treatment satisfactory.

**Table 4.73: Was the treatment satisfactory?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	1	2.0	100.0	100.0
Missing	System	50	98.0		
Total		51	100.0		

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### 4.6.1.3.4 Q 3.3 “Have your family members consulted with a chiropractor before?”

As illustrated in Table 4.74, 14% of respondents’ family members had consulted with a chiropractor before whilst the majority of 86% of respondents’ family members had not done so.

**Table 4.74: Have your family members consulted with a chiropractor before?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	7	13.7	14.3	14.3
	No	42	82.4	85.7	100.0
	Total	49	96.1	100.0	
Missing	System	2	3.9		
Total		51	100.0		

Table 4.75 shows that of the 14% of respondents’ family members who had consulted with a chiropractor, 2% had done so between 4 months to 1 year ago or 4 years ago.

**Table 4.75: When did last consult take place?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		47	92.2	92.2	92.2
	2005	1	2.0	2.0	94.1
	2008	1	2.0	2.0	96.1
	4 months	1	2.0	2.0	98.0
	February	1	2.0	2.0	100.0
	Total	51	100.0	100.0	

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Table 4.76 shows that of the 14% of respondents' family members who had consulted with a chiropractor, conditions addressed included back and shoulder pain.

**Table 4.76: For what condition was the last consultation?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		47	92.2	92.2	92.2
	Back	1	2.0	2.0	94.1
	Consultation	1	2.0	2.0	96.1
	Diabetes	1	2.0	2.0	98.0
	Shoulder pain	1	2.0	2.0	100.0
	Total	51	100.0	100.0	

Table 4.77 shows that of the 14% of respondents' family members who had consulted with a chiropractor, 86% regarded the treatment satisfactory.

**Table 4.77: Was the treatment satisfactory?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	6	11.8	85.7	85.7
	No	1	2.0	14.3	100.0
	Total	7	13.7	100.0	
Missing	System	44	86.3		
Total		51	100.0		

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### 4.6.1.3.5 Q 3.4 “Have your friends consulted with a chiropractor before?”

As illustrated in Table 4.78, 20% of respondents' friends had consulted with a chiropractor whilst the majority of 78% of respondents' friends had not done so.

**Table 4.78: Have your friends consulted with a chiropractor before?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	10	19.6	20.0	20.0
	No	40	78.4	80.0	100.0
	Total	50	98.0	100.0	
Missing	System	1	2.0		
Total		51	100.0		

Table 4.79 shows that of the 20% of respondents' friends who had consulted with a chiropractor, 2% had done so 3 years ago or 1 year ago.

**Table 4.79: When did last consult take place?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		48	94.1	94.1	94.1
	2006	1	2.0	2.0	96.1
	2008	1	2.0	2.0	98.0
	Last year	1	2.0	2.0	100.0
	Total	51	100.0	100.0	

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Table 4.80 shows that of the 20% of respondents' friends who had consulted with a chiropractor, conditions addressed included lower back pain and shoulder conditions.

**Table 4.80: For what condition was the last consultation?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		46	90.2	90.2	90.2
	Lower back	1	2.0	2.0	92.2
	Massage	1	2.0	2.0	94.1
	Paralysis	1	2.0	2.0	96.1
	Back / shoulder condition	1	2.0	2.0	98.0
	Severe Back Ache	1	2.0	2.0	100.0
	Total	51	100.0	100.0	

Table 4.81 shows that of the 20% of respondents' friends who had consulted with a chiropractor, 100% of respondents' friends received satisfactory treatment.

**Table 4.81: Was the treatment satisfactory?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	9	17.6	100.0	100.0
Missing	System	42	82.4		
Total		51	100.0		

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### 4.6.1.3.6 Summary of personal interaction with chiropractors

In accordance with the previous discussions (4.6.1.3.1) 67% of the 98% of respondents who responded to this question had not been acquainted with any chiropractors (Table 4.65). This concurs with fact that many respondents came from regions in South Africa where few chiropractors practise (Engelbrecht, 2009) and that geographic access plays a role in knowledge acquisition (Ernst and White, 2000; Lewith *et al.*, 2001; Bodeker, 2001; McFarland *et al.*, 2002; Bodeker and Kronenberg, 2002; Wojcicowski *et al.*, 2006; Hughes and Wingard, 2006). In addition the discussion of the detractors identified as culture/ethnicity (Figure 4.3) and age (Table 4.1), seems to further emphasise the fact that the respondents have a low knowledge level of chiropractic. It is therefore assumed that the respondents would also have more negative perceptions of chiropractic (Gaumer *et al.*, 2002).

This would be minimally affected by the 14% of respondents who had consulted with a chiropractor (Table 4.66); even though 100% of the respondents that had had treatment indicated that they were satisfied with the treatment (Table 4.69). Furthermore it has also been shown that chiropractic patients generally know a little more about chiropractic than non- patients do (Rattan, 2007). This stance is hardly changed by the fact that the respondents also did not have children (98%) (Table 4.70), family members (86%) (Table 4.75), or friends (80%) (Table 4.78) who had visited a chiropractor; thus restricting receiving of secondary information on chiropractic by the respondents. Thus it would seem that the respondents seem to have a representation similar to the general population of South Africa (Rattan, 2007).

This is surprising as the enablers to accessing knowledge about the chiropractic profession are particularly strong for the respondent group in this study; Honourable members being part of the middle and upper income earning group,

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have increased access possibilities to chiropractors who operate mainly in the private sector in South Africa (Chiropractic Association of South Africa, 2008). The respondents also had more access to medical aid cover (92% of respondents) than other population groups and would thus generally have the means to afford chiropractic care, which appears to be unaffordable to most of the population (Rattan, 2007).

These results seem to suggest that there are primary (stronger and overriding) and secondary (weaker and easily overridden) categories with the detractors having more primary detractor factors and the enablers having fewer or even multiple secondary enablers.

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**4.6.2 Objective Two:** To determine the level of knowledge of the respondents about the chiropractic profession <sup>1</sup>.

Responses to the individual knowledge-based questions are reflected below:

### **4.6.2.1 Q 4.1 “Is the chiropractic profession currently legislated in South Africa?”**

Table 4.82 shows that the majority of 63% of respondents did not know the answer to this question. 27% of the respondents thought that chiropractic was legislated in South Africa whilst 10% thought it was not. Significantly 63.3% did not actually know whether chiropractic was provided for in legislation under the Department of Health in South Africa.

**Table 4.82: Is the chiropractic profession currently legislated in South Africa?**

		Count	Column N %
Is the chiropractic profession currently legislated in South Africa?	Yes	13	26.5%
	No	5	10.2%
	I don't know	31	63.3%

This is in stark contrast to the results obtained by Heslop (2008), where 66.7% of paediatricians indicated that they knew chiropractic was a legislated profession. It may be considered that the outcome of this comparison is directly related to the

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<sup>1</sup> The correct answers to the knowledge-based questions in this section are included in the knowledge-based question score sheet (Appendix I) should the reader find it necessary to refer to the scoring sheet in conjunction with this section of question responses. Correct answers carry a score of 1 whilst incorrect answers carry a score of 0. The higher the knowledge score obtained, the higher the level of respondents' knowledge.

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fact that the members of the HPCs are in the direct employ of the state and are therefore unable to also be active on a part time or full time bases in practice or the treatment of patients (Maharaj, 2009). Hence the interaction that the paediatricians have within the health care sector (and thus chiropractors) may account for their response being so much higher than the respondents in this study.

### 4.6.2.2 **Q 4.2 “For how long has chiropractic been practised as a profession in South Africa, irrespective of legislature?”**

Table 4.83 shows that 84% of respondents did not know the answer to this question, which follows from the preceding questions. Of those that did respond, 10% selected the 11-50 year timeframe and 6% of respondents selected the 51-100 year timeframe. Again it is seen that a significant number did not know (83.7%).

**Table 4.83: For how long has chiropractic been practised as a profession in South Africa, irrespective of legislature?**

		Count	Column N %
For how long has chiropractic been practised as a profession in South Africa, irrespective of legislature?	< 10 years	0	.0%
	11-50 years	5	10.2%
	51-100 years	3	6.1%
	> 100 years	0	.0%
	I don't know	41	83.7%

The above results (Tables 4.82 and 4.83) seem to concur with the assertions made in objective one with regards to the respondent demographics (Section 4.6.1.1 discussion), HPC demographics (Section 4.6.1.2 discussion) and personal interaction (Section 4.6.1.3 discussion). It could therefore be stated that the results seem to suggest that there is a difference between actively practising and non practicing health care practitioners (Heslop, 2008).

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### 4.6.2.3 Q 4.3 “At which institution/s can chiropractic be studied in South Africa?”

Table 4.84 shows that the majority of 68% of respondents thought chiropractic could be studied in the University of Free State, followed by 26% for the Durban University of Technology and 18% for the University of Cape Town options.

**Table 4.84: At which institution/s can chiropractic be studied in South Africa?**

	Yes		No	
	Count	Row N %	Count	Row N %
Durban University of Technology	13	26.0%	37	74.0%
Stellenbosch University	5	10.0%	45	90.0%
Tshwane University	5	10.0%	45	90.0%
University of Cape Town	9	18.0%	41	82.0%
University of the Free State	34	68.0%	16	32.0%
University of Johannesburg	3	6.0%	47	94.0%
University of KZN	6	12.0%	44	88.0%
University of Western Cape	5	10.0%	45	90.0%
I do not know	6	12.0%	44	88.0%

This result is an unusual one, in that the majority of the respondents were from the Eastern Cape and Limpopo provinces (Table 4.15) and not from the Free State province. One possibility exists that the respondents associated chiropractic with the School of Allied Health Sciences at the University of the Free State (University of Free State, 2009) as all other websites for the other institutions, such as those of University of Cape Town and University of KwaZulu-Natal, websites indicate only “Health Sciences” or “Medical sciences” (University of Cape Town Academic Department, 2009; University of KwaZulu-Natal Academic Department, 2009). This would be true if the following assumption made on the data to this point is acceptable – i.e. if the respondents are trained principally in health sciences or nursing (Table 4.13 and Section 4.6.1.1.12)

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(within the medical paradigm), it stands to reason that within that domain they could identify all medical sciences and by default perceive chiropractic as

standing outside of that paradigm; identifying a chiropractic association with the “Allied Health Sciences” and possibly the University of Free State.

Irrespective of the reason behind the choice that the respondents made, the results here are in keeping with the results obtained by Rattan (2007) where just 32.8% of grade 12 learners knew the correct answers to this question (i.e. 26.0 % at the Durban University of Technology) and 6% (University of Johannesburg). Furthermore this is in contrast to Heslop (2008) where the paediatricians in her study indicated correctly that the chiropractic courses are run at the Durban University of Technology (57.1%) and at the University of Johannesburg (22.6%).

Thus it would seem that the effect of the ethnic/cultural background of the individual plays a larger and larger role in this study as comparatively it seems that this study (Figure 4.3) had predominantly Black males, where Heslop (2008) had predominantly White males (Heslop, 2008).

### 4.6.2.4 Q 4.4 “What type of course do you think chiropractors follow?”

Table 4.85 shows that the 51% majority of respondents correctly knew that the chiropractic course was a full time course. Significantly 43% of respondents did not know the answer to this question.

**Table 4.85: What type of course do you think chiropractors follow?**

		Count	Column N %
What type of course do you think chiropractors follow?	Weekend course	0	.0%
	Part-time course	3	6.1%
	Full-time course	25	51.0%
	I don't know	21	42.9%

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The answer to this question poses a dilemma, as it is incongruent with the previous questions (4.6.2.1 – 4.6.2.3), where it was established that the respondents do not really know about chiropractic training. There are however possible generic reasons that may have influenced the outcome of this answer:

- Most health care professions' training programmes are full time, especially those programmes that lead to the health care profession attaining a registration requirement with their council (Allied Health Professions Council, 2009; Health Professions Council, 2009). With their training in health care professions, the respondents may have assumed that the same is true of chiropractic.
- In addition it stands to reason that if the respondents assumed chiropractic to be a health profession, they would either have ticked "full-time course" or "I don't know" if they did not make the assumption that chiropractic is a health care profession or if they were indeed uncertain.

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### 4.6.2.5 Q 4.5 “What level of education is required to enter the chiropractic course?”

Table 4.86 shows that the majority 50% of respondents did not know the answer to this question. Correspondingly 38% of respondents correctly knew that Grade 12 (with matric exemption) was the entrance requirement for the chiropractic course and 10% of respondents thought that medical or paramedical propeduse courses were required.

**Table 4.86: What level of education is required to enter the chiropractic course?**

	Yes		No	
	Count	Row N %	Count	Row N %
None	0	0%	50	100%
Grade 10	0	0%	50	100%
Grade 12 (without matric exemption)	3	6%	47	94%
Grade 12 (with matric exemption)	19	38%	31	62%
Medical or paramedical education	3	6%	47	94%
Medical or paramedical propeduse	5	10%	45	90%
I don't know	25	50.0%	25	50%

It is to be expected that 50% of the respondents did not know the answer to this question as 42.9% of respondents (Table 4.85) did not know whether the course was full-time or part-time. This delineation would have assisted them in answering the entry level requirements question as the full time programmes in South Africa have similar baseline entry level requirements (Libhaber and Greene, 2006). This result is different to the results obtained by Rattan (2007) where the majority of 88.8% of grade 12 learners knew the correct answer to this question. A possible reason for this is that knowledge of entrance requirements to higher education courses are very important to Grade 12 learners (Rattan, 2007), possibly more important to them than to the honourable members.

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### 4.6.2.6 Q 4.6 “How long do you think chiropractors have to work within a clinic environment with medical supervision, in addition to time spent training?”

Table 4.87 shows that 48% of respondents did not know the answer to this question. Of the remaining 30% of respondents thought that 3 years was the number of years chiropractors worked within a clinic environment with medical supervision. In addition to time spent training whilst 12% of respondents thought that it was 2 years.

**Table 4.87: How long do you think chiropractors have to work within a clinic environment with medical supervision, in addition to time spent training?**

		Count	Column N %
How long do you think chiropractors have to work within a clinic environment with medical supervision, in addition to time spent training?	Not at all	2	4.0%
	1 year	2	4.0%
	2 years	6	12.0%
	3 years	15	30.0%
	I don't know	24	48.0%
	Other	1	2.0%

This response is again congruent with the fact that the majority of health care courses are at least/at minimum three years in duration (e.g. nursing diploma) (Department of community health studies, 2009) and thus it would seem that the majority of the respondents answered the questionnaire based on a generic reference norm (based on their education and experience (Tables 4.7 and Section 4.6.1.1.12) and not by an actual understanding of the chiropractic profession.

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### 4.6.2.7 Q 4.7 “A chiropractor that qualifies from his/her studies in South Africa does so with which ONE of the following qualifications?”

Table 4.88 shows that of the 33 respondents, the majority of 33% of respondents thought that chiropractors qualify with a diploma, whilst just 30% of respondents knew that the correct answer was a Masters degree qualification. If however the responses are taken as a percentage of the total numbers that responded then only 21.5% and 19.6% indicated they thought chiropractors qualified with a diploma or a Masters degree respectively.

**Table 4.88: A chiropractor that qualifies from his/her studies in South Africa does so with which ONE of the following qualifications?**

		Count	Column N %
A chiropractor that qualifies from his/her studies in South Africa does so with which ONE of the following qualifications?	Bachelor's degree	7	21.2%
	Diploma	11	33.3%
	Masters degree	10	30.3%
	National Higher Diploma	2	6.1%
	PhD	3	9.1%
	Other	0	.0%

Similar studies have found the same lack of knowledge (Reubens, 1996; Van As, 2005; Kew, 2006; Butt, 2008; Heslop, 2008; Naidoo, 2008) where the majority of neurologists, neurosurgeons and orthopedic surgeons, school careers guidance councillors, personal trainers, rugby coaches, paediatricians and biokineticists were not well informed about the chiropractic course in South Africa in order to reliably identify the correct qualification. This was analogous to the findings of the WFC consultation of identity of chiropractic where it was concluded that there is a limited public awareness regarding the education of chiropractors (WFC, 2005). Thus this question relates directly to a lack of knowledge.

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**4.6.2.8    Q 4.8 “The chiropractic course includes training in the following subjects/treatment methods: Place an ‘X’ in the correct box to indicate ‘TRUE’ or ‘FALSE’ ”**

Table 4.89 shows that 100% of respondents agreed that the chiropractic course included training in Anatomy and Exercise therapy, followed by the 97% majority of respondents who agreed Massage therapy and Stretching were included in the training. A substantial number of respondents (as highlighted in Table 4.89 below) incorrectly thought drug therapy, fracture care, chiropody, medication, minor surgery, psychiatry and ultraviolet light therapy were included in the chiropractic training. This fairly broad reflection of the respondents understanding of the chiropractic profession could be based on a low level of knowledge of the chiropractic course.

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**Table 4.89: The chiropractic course includes training in the following subjects/treatment methods**

	Yes		No	
	Count	Row N %	Count	Row N %
Anatomy	29	100.0%	0	.0%
Chemistry	18	78.3%	5	21.7%
Diagnostics	24	85.7%	4	14.3%
Drug therapy	15	71.4%	6	28.6%
Dry needling tender (trigger/acupuncture) points	20	90.9%	2	9.1%
Electrotherapy (IFC, TENS)	17	94.4%	1	5.6%
Emergency Care	17	73.9%	6	26.1%
Ergonomic advice	13	76.5%	4	23.5%
Exercise therapy	32	100.0%	0	.0%
Fracture care	24	92.3%	2	7.7%
Chiropody	20	87.0%	3	13.0%
Heat & Ice therapy	23	92.0%	2	8.0%
Laser therapy	15	78.9%	4	21.1%
Manipulation/ Adjustment	21	95.5%	1	4.5%
Massage therapy	28	96.6%	1	3.4%
Medication	16	72.7%	6	27.3%
Medical Microbiology	9	56.3%	7	43.8%
Minor surgery	9	45.0%	11	55.0%
Mobilization	15	83.3%	3	16.7%
Nutritional advice	15	78.9%	4	21.1%
Pathology	13	76.5%	4	23.5%
Pharmacology	9	64.3%	5	35.7%
Physics	18	85.7%	3	14.3%
Physiology	25	92.6%	2	7.4%
Physiotherapeutic modalities	19	95.0%	1	5.0%
Psychiatry	7	38.9%	11	61.1%
Psychology	13	61.9%	8	38.1%
Radiotherapy	11	61.1%	7	38.9%
Rehabilitation	27	96.4%	1	3.6%
Stretching	29	96.7%	1	3.3%
Traction	18	85.7%	3	14.3%
Ultrasound therapy	18	78.3%	5	21.7%
Ultraviolet light therapy	19	90.5%	2	9.5%

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The results of this question are in keeping with the results of a similar questions addressed in previous research by Reubens (1996), Hunter (2004), Louw (2005), Van As (2005), Kew (2006), Rattan (2007), Butt (2008), Cloete (2008), Heslop (2008), Maharaj (2008), Naidoo (2008) and Palmer (2008) where it was found that the responses indicated a poor knowledge of the chiropractic course. Again this question is a direct knowledge question that can only be answered if the respondent has a clear idea of the profession. This is however not possible in that the data provided to this point indicates that the majority of the respondents in this study did not have sufficient insight into the profession to be able to answer knowledge questions sufficiently.

### **4.6.2.9 Q 4.9 “Because of their training, chiropractors can focus their treatment in the following areas: Place an ‘X’ in the correct box to indicate ‘TRUE’ or ‘FALSE’ ”**

Table 4.90 shows that the 97% majority of respondents thought that chiropractors may focus their treatment on the neuromusculoskeletal system, whilst just 44% thought that they may focus on surgery.

**Table 4.90: Because of their training, chiropractors can focus their treatment in the following areas**

	Yes		No	
	Count	Row N %	Count	Row N %
Acupuncture	21	77.8%	6	22.2%
Extremities (e.g. knee, elbow, wrist)	30	93.8%	2	6.3%
Neuromusculoskeletal system (nerves, muscles and bones)	32	97.0%	1	3.0%
Pediatrics	16	72.7%	6	27.3%
Radiology	12	54.5%	10	45.5%
Rehabilitation	29	93.5%	2	6.5%
Sports medicine	29	93.5%	2	6.5%
Surgery	10	43.5%	13	56.5%

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This response echoes the findings of Reubens (1996), Gaumer *et al.* (2002), Hunter (2004), Louw (2005), Van As (2005), World Federation of Chiropractic (2005), Kew (2006), Rattan (2007), Butt (2008), Cloete (2008), Heslop (2008), Maharaj (2008), Naidoo (2008) and Palmer (2008); where it was found that the majority of respondents indicated that they perceived chiropractic as a speciality health profession dealing principally with neuromusculoskeletal pathology in particular back pain, neck pain and related pathology. It therefore seems that this impression is being expressed by the chiropractic profession in the media (electronic and print) and not a factor related to the respondents in general (Robbins, 1996; Berg *et al.*, 1999).

### **4.6.2.10 Q 4.10 “Is the chiropractic profession, in South Africa, regulated by a statutory body?”**

Table 4.91.1 shows that the 66% majority of respondents thought that the chiropractic profession was not regulated by a statutory body.

**Table 4.91.1: Is the chiropractic profession, in South Africa, regulated by a statutory body?”**

	Yes		No		I don't know	
	Count	Row N %	Count	Row N %	Count	Row N %
Is the chiropractic profession, in South Africa, regulated by a statutory body?	17	34.0%	0	.0%	33	66.0%

This response is in line with and verifies the results portrayed in Table 4.82.

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### 4.6.2.11 Q 4.11 “Does the chiropractic profession in South Africa have an organizational professional body?”

Table 4.91.2 shows that the 56% majority of respondents thought that the chiropractic profession did not have an organizational body.

**Table 4.91.2: Does the chiropractic profession in South Africa have an organizational professional body?**

	Yes		No		I don't know	
	Count	Row N %	Count	Row N %	Count	Row N %
Does the chiropractic profession in South Africa have an organizational professional body?	22	44.0%	0	.0%	28	56.0%

This response is in line with and verifies the results portrayed in Table 4.82 and 4.91.1.

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### 4.6.2.12 Q 4.12 “How many registered chiropractors do you think there are in South Africa?”

Table 4.92 shows that 69% of respondents did not know the answer to this question. In addition 14% thought that there were between 0-200 registered chiropractors in South Africa.

**Table 4.92: How many registered chiropractors do you think there are in South Africa?**

		Count	Column N %
How many registered chiropractors do you think there are in South Africa?	0-200	7	14.3%
	201-400	2	4.1%
	401-600	4	8.2%
	601-800	1	2.0%
	801-1000	0	.0%
	1001-1200	0	.0%
	>1200	1	2.0%
	I don't know	34	69.4%

It would seem that the respondents had no idea of the numbers of practitioners in South Africa at the time of the study, which is at odds with their role as honourable members in which they fulfil an oversight function that should allow them to have a global idea of the health human resources available in South Africa (Hupkes, 1990; World Health Organisation, 2008). It also re-enforces the assertion in the World Health Report (Hupkes, 1990; World Health Organisation, 2008) that indicates that an inherent bias has crept into the health care systems within countries, based solely on the health programmes considered vital in terms of health care demands at that time.

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### 4.6.2.13 Q 4.13 “What percentage of medical aid carriers covers chiropractic treatment?”

Table 4.93 shows that 0% of respondents thought that medical aid does not cover chiropractic treatment whilst the majority 33% of respondents thought that just 1-10% of medical aids covered chiropractic treatment. Only 7.4% of respondents knew the correct answer was between 91-100%. (Chiropractic Association of South Africa, 2008).

**Table 4.93: What percentage of medical aid carriers covers chiropractic treatment?**

	Count	Column N %
What percentage of medical aid carriers covers chiropractic treatment?	0	.0%
0%	9	33.3%
1-10%	4	14.8%
11-20%	2	7.4%
21-30%	1	3.7%
31-40%	2	7.4%
41-50%	4	14.8%
51-60%	1	3.7%
61-70%	1	3.7%
71-80%	1	3.7%
81-90%	1	3.7%
91-100%	2	7.4%

This answer again alludes to the fact that the oversight function applicable to the honourable members has been skewed and no longer includes information on all health professions within the health care system (Hupkes, 1990; World Health Organisation, 2008).

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### 4.6.2.14 **Q 5.4 “Do chiropractors process workman’s compensation claims?”**

Table 4.94 shows that 85% of respondents did not know the answer to this question. Just 8% of respondents correctly knew that chiropractors process workman’s compensation claims (Chiropractic Association of South Africa, 2008).

**Table 4.94: Do chiropractors process workman’s compensation claims?**

		Count	Column N %
Do chiropractors process workman's compensation claims?	Yes	4	8.3%
	No	3	6.3%
	I don't know	41	85.4%

This again alludes to the fact that the oversight function applicable to the honourable members has been skewed and no longer includes information on all health professions within the health care system (Hupkes, 1990; World Health Organisation, 2008), in a similar comparison to Table 4.93.

### 4.6.2.15 **Q 5.7 “In which sector would you say chiropractic plays a more important role?”**

Table 4.95 shows that the majority 65% of respondents correctly knew that chiropractic played a more significant role in the private health care sector within South Africa (Chiropractic Association of South Africa, 2008). The remaining 35% felt they played a more important role in the public health care sector.

**Table 4.95: In which sector would you say chiropractic plays a more important role?**

		Count	Column N %
In which sector would you say chiropractic plays a more significant role?	Public sector	15	34.9%
	Private sector	28	65.1%

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From the foregoing discussions (Table 4.84), this response is related directly to the qualifications that the respondents actually hold and their familiarity with the public health care system, in that for the most part chiropractic will not have been in their surroundings whilst they were training or completing their internship requirements within a public hospital setting (Health Professions Council of South Africa, 2009). Therefore it stands to reason that from this basis if they did not associate chiropractic with the public health care sector, their responses would naturally have been the opposite, given that they only had two options from which to choose. It may have been better to leave the question more open ended or left an option indicating that they did not know or whether they did not think that the profession was associated with either (i.e. did not exist).

### **4.6.2.16 Q 7.4 “Do you feel adequately informed about chiropractic?”**

92.8% of respondents did not feel adequately informed about chiropractic. However, 7.8% of respondents felt that they were adequately informed about chiropractic.

It could have been stated that the respondents were prone to a “Hawthorne effect” (Draper, 2005), in that the researcher was a chiropractic Masters student and that the respondents wanted to please the researcher by giving the “correct” or appropriate response they perceived the researcher to want. It is therefore refreshing to note that the respondents did honestly answer the questions up to this point in the questionnaire and were prepared to openly indicate (in line with their previous responses) that they felt inadequately informed.

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### **4.6.2.17 Q 7.5.1 “Would you like to know more about the chiropractic profession?”**

All (100%) of respondents indicated that they would like to know more about the chiropractic profession. Supporting the outcomes achieved in 4.6.2.16.

### **4.6.2.18 Q 7.5.2 “How would you like to be informed about chiropractic?”**

Respondents could choose more than one of the options provided on the research questionnaire. 53% of the respondents indicated that they would like to be informed about chiropractic through printed information packages. 39% of respondents indicated had a preference for informative lectures/seminars, while 35% of respondents preferred the media/press and 31.4% of respondents stated they would read research publications. Of interest only 23.5% of respondents indicated that they would like to be informed about chiropractic through personal contact with the profession with a further 19.6% of respondents stipulating meetings with the relevant associations/organizations. 11.8% of respondents would like to be informed about chiropractic by other means such as email correspondence.

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### 4.6.2.19 Summary regarding knowledge-related questions

The mean knowledge score was 31.4%. This is relatively low, indicating an overall poor knowledge of chiropractic amongst this population. The range was from 0% to 72.7% (Table 4.96).

**Table 4.96: Summary of statistics of knowledge score**

N	Valid	51
	Missing	0
Mean		31.4439
Std. Deviation		23.05665
Minimum		.00
Maximum		72.73
Percentiles	25	7.2727
	50	29.0909
	75	50.9091

These results seem to suggest that there are primary (stronger and overriding) and secondary (weaker and easily overridden) categories with the detractors having more primary detractor factors and the enablers having fewer or even multiple secondary enablers but further qualitative research needs to be conducted to prove or disprove this.

Based on results of the knowledge questions, it would seem that the largest of the detractors are:

- Culture (Postman *et al.*, 1948; Philbin *et al.*, 2008);
- Gender (MacLennan and Wilson, 1996; National Centre for Complementary and Alternative Medicine, 2004; Tatalias, 2006);
- Development of the honourable members within the medical paradigm and their isolation within this paradigm (Hupkes, 1990; World Health Organisation, 2008), compounded by their inability to actively practice and interact on a patient centred basis with other health care providers (Heslop, 2008); and

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- Unilateral programme development on diseases and favoured health care within the health care system determining access to knowledge (Hupkes, 1990; World Health Organisation, 2008).
- The professions inability to project itself as a primary contact profession along with the over emphasis that is perceived to be related to spinal care and spinal health (Gaumer *et al.*, 2002; World Federation of Chiropractic, 2005; Chapman-Smith, 2009).

Furthermore it would seem that the enablers to the process of accessing and gaining knowledge of chiropractic are not as strong as the detractors, thus not facilitating a process of enquiry and research into chiropractic as a profession.

These results thus send a clear signal that detractors need to be addressed to the best of the chiropractic professions ability and those enablers that have been identified need to be utilised to enable an increase in the honourable members' knowledge (Sanchez, 1991).

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**4.6.3 Objective Three:** To determine the perception of the respondents of the chiropractic profession <sup>2</sup>.

Although 69% of respondents had no opinion/did not know enough about chiropractic to comment (Table 4.133), responses to the individual perception-based questions are reflected below:

**4.6.3.1 Q 3.5 “If you have answered yes to question 3.1, would you continue to consult with a chiropractor for the same or a different condition in the future?”**

Table 4.66 shows that 14% (n=7) of respondents had consulted with a chiropractor. From Table 4.97 it can be seen that seven respondents would continue to consult with a chiropractor for the same or a different condition (100% of those that had previously been to a chiropractor or 22% of the total number of respondents), whilst 3% (1) was undecided.

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<sup>2</sup> The scoring of the perception-based questions in this section are included in the perception-based question score sheet (Appendix J) should the reader find it necessary to refer to the scoring sheet in conjunction with this section of question responses. The higher the perception score obtained the more positive the perception of the respondents was towards chiropractic.

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**Table 4.97: If you have answered yes to question 3.1, would you continue to consult with a chiropractor for the same or a different condition in the future?**

	Yes		No		Undecided		Not applicable	
	Count	N Row %	Count	N Row %	Count	N Row %	Count	N Row %
If you have answered yes to question 3.1, would you continue to consult with a chiropractor for the same or a different condition in the future?	7	21.9%	0	.0%	1	3.1%	24	75.0%

The response to this question has several underlying features that may contribute to the outcome achieved:

- Was the experience congruent with the knowledge that they had of the profession at the time of the experience ? (Gamble and Gamble, 1998; May, 2000).
- Was the experience of having attended the chiropractic consultation congruent with the expectations of the respondent ? (Sigrell, 2002).
- Was the experience of having attended the chiropractic consultation a good, mediocre or bad experience as perceived by the respondent ? (Gamble and Gamble, 1998; Haneline, 2006).

22% of respondents indicated that they would return to their chiropractor which indicates that these results are congruent with the literature norms as discussed by Vernon (1991) and Miller and Gemmel (2004). Their research indicated that the advantage of chiropractic care is a patient centred approach which has the potential to influence patient outcomes for the better and result in a positive patient experience, thus encouraging the patient to return for further treatment.

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### 4.6.3.2 Q 3.6 “Would you recommend chiropractic treatment to your colleagues, friends and/or family?”

Irrespective of whether the respondents had been to a chiropractor, Table 4.98 shows that 39% of the respondent would recommend chiropractic treatment to their colleagues, friends and/or family, whilst 5% of respondents would not. Whereas 10% of respondents were undecided and the majority 46% respondents found this question not applicable.

**Table 4.98: Would you recommend chiropractic treatment to your colleagues, friends and/or family?**

	Yes		No		Undecided		Not applicable	
	Count	N Row %	Count	N Row %	Count	N Row %	Count	N Row %
Would you recommend chiropractic treatment to your colleagues, friends and/or family?	16	39.0%	2	4.9%	4	9.8%	19	46.3%

This is interesting as there were only 7 respondents (14%) that had actually been for chiropractic treatment, which implies that there are 12 respondents that are relying solely on their knowledge for referral of colleagues, friends and/or family. This makes little sense as the average knowledge score is not very high (Table 4.96). Thus it is accepted that this question may have been answered in such a manner as to please the researcher (Hawthorne Effect) (Draper, 2005).

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### 4.6.3.3 Q 5.1 “Which health care practitioner would you consult with FIRST if you had a medical concern?”

Table 4.99 shows that 77% of the respondents would first consult with a general practitioner (GP) if they had a medical concern. This is followed by 6% of respondents who would first consult a chiropractor or traditional healer if they had a medical concern.

**Table 4.99: Which health care practitioner would you consult with FIRST if you had a medical concern?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Biokineticist	2	3.9	4.0	4.0
	Chiropractor	3	5.9	6.0	10.0
	GP	39	76.5	78.0	88.0
	Pharmacist	1	2.0	2.0	90.0
	Specialist	2	3.9	4.0	94.0
	Traditional healer	3	5.9	6.0	100.0
	Total	50	98.0	100.0	
Missing	System	1	2.0		
Total		51	100.0		

This response based on the perception of the relative importance of the professions as presented on the questionnaire indicates that the respondents seem to identify the GP as the gatekeeper for medical conditions. This is the standard norm within the mainstream allopathic health care model that is predominantly based on the hospital centred approach to health care (World Health Organisation, 2008). This emphasises the fact that the paradigm within which health care providers are trained and developed is limited only to those professions within allopathic medicine model and hierarchy (Hupkes, 1990; World Health Organisation, 2008) to the exclusion of complementary alternative and traditional therapies. Therefore this result in isolation would seem to suggest that the biggest detractor of knowledge and thus perception of chiropractic

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seems to be directly related to the culture of medicine and possibly not just the culture/ethnicity of the individual respondent (Hayes, 1994; Myers, 1996; Atkinson *et al.*, 2000).

### 4.6.3.4 Q 5.2 “How close is the nearest practitioner to you?”

Table 4.100 shows that 43% of the 73% of respondents who responded to this question had a biokineticist situated >50km away from them.

**Table 4.100: Biokineticist**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-10km	11	21.6	29.7	29.7
	10-20km	2	3.9	5.4	35.1
	20-30km	1	2.0	2.7	37.8
	40-50km	1	2.0	2.7	40.5
	>50km	22	43.2	59.5	100.0
	Total	37	72.5	100.0	
Missing	System	14	27.5		
Total		51	100.0		

Table 4.101 shows that the majority of 43% of the 71% of respondents who responded to this question had a chiropractor situated >50km away from them.

**Table 4.101: Chiropractor**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-10km	11	21.6	30.6	30.6
	20-30km	1	2.0	2.8	33.3
	30-40km	1	2.0	2.8	36.1
	40-50km	1	2.0	2.8	38.9
	>50km	22	43.1	61.1	100.0
	Total	36	70.6	100.0	
Missing	System	15	29.4		
Total		51	100.0		

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Table 4.102 shows that the majority of 81% of the 90% of respondents who responded to this question had a general practitioner (GP) situated less than 10km away from them.

**Table 4.102: GP**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-10km	41	80.4	89.1	89.1
	10-20km	2	3.9	4.3	93.5
	>50km	3	5.9	6.5	100.0
	Total	46	90.2	100.0	
Missing	System	5	9.8		
Total		51	100.0		

Table 4.103 shows that the majority of 37% of the 69% of respondents who responded to this question had a homeopath situated >50km away from them.

**Table 4.103: Homeopath**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-10km	8	15.7	22.9	22.9
	10-20km	4	7.8	11.4	34.3
	20-30km	1	2.0	2.9	37.1
	30-40km	2	3.9	5.7	42.9
	40-50km	1	2.0	2.9	45.7
	>50km	19	37.3	54.3	100.0
	Total	35	68.6	100.0	
Missing	System	16	31.4		
Total		51	100.0		

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Table 4.104 shows that the majority of 75% of the 86% of respondents who responded to this question had a pharmacist situated less than 10km away from them.

**Table 4.104: Pharmacist**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-10km	38	74.5	86.4	86.4
	10-20km	3	5.9	6.8	93.2
	>50km	3	5.9	6.8	100.0
	Total	44	86.3	100.0	
Missing	System	7	13.7		
Total		51	100.0		

Table 4.105 shows that the majority of 45% of the 81% of respondents who responded to this question had a physiotherapist situated less than 10km away from them.

**Table 4.105: Physiotherapist**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-10km	23	45.1	56.1	56.1
	10-20km	6	11.8	14.6	70.7
	30-40km	1	2.0	2.4	73.2
	>50km	11	21.6	26.8	100.0
	Total	41	80.4	100.0	
Missing	System	10	19.6		
Total		51	100.0		

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Table 4.106 shows that the majority of 41% of the 82% of respondents who responded to this question had a specialist situated less than 10km away from them.

**Table 4.106: Specialist**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-10km	21	41.2	50.0	50.0
	10-20km	11	21.6	26.2	76.2
	30-40km	1	2.0	2.4	78.6
	40-50km	2	3.9	4.8	83.3
	>50km	7	13.8	16.7	100.0
	Total	42	82.4	100.0	
Missing	System	9	17.6		
Total		51	100.0		

Table 4.107 shows that the majority of 47% of the 75% of respondents who responded to this question had a traditional healer situated >50km away from them.

**Table 4.107: Traditional healer**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-10km	9	17.6	23.7	23.7
	10-20km	1	2.0	2.6	26.3
	20-30km	1	2.0	2.6	28.9
	>50km	27	53.0	71.1	100.0
	Total	38	74.5	100.0	
Missing	System	13	25.5		
Total		51	100.0		

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It is of interest to note the following summary of the Tables 4.100 – 4.107:

- General practitioners, pharmacists and physiotherapists were known to be within 0-10km radius of the respondent;
- Specialists were known to be within a 0-20km radius and
- Biokineticists, homoeopaths, chiropractors and traditional healers were “known” to be outside of a 50km radius. The word “known” is in parentheses to indicate that it may not be known that there is indeed a practitioner closer to the respondent.

These results go to re-enforce the medical culture suggested under Sections 4.6.1.1.13 and 4.6.1.2.11, as the respondents seem to have a greater knowledge of the presence of gatekeeper and support personnel within the allopathic “culture” as compared to other health care professions. However this assumption must be taken with caution as it is noted that the majority of the respondents did come from provinces that had few chiropractors (Limpopo and Eastern Cape – Table 4.15), however having stated this these provinces do however have higher numbers of traditional healers (Richter, 2003).

### **4.6.3.5    Q 5.3 “Please indicate which health care provider you would choose FIRST for treatment if you had each of the following conditions”**

Table 4.108 (continued over the next two pages) shows that for the majority of conditions, respondents would first consult with their general practitioner, followed by their specialist then pharmacist. An increased selection of chiropractic is noted in some conditions such as lower back pain, neck pain and shoulder pain.

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**Table 4.108: Please indicate which health care provider you would choose FIRST for treatment if you had each of the following conditions (continued on the following page)**

	Biokineticist		Chiropractor		GP		Homeopath		Pharmacist		Physiotherapist		Specialist		Traditional healer	
	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Allergies	0	.0%	1	2.1%	35	74.5%	2	4.3%	4	8.5%	0	.0%	5	10.6%	0	.0%
Appendicitis	0	.0%	2	4.3%	34	72.3%	0	.0%	1	2.1%	0	.0%	10	21.3%	0	.0%
Arthritis	0	.0%	1	2.2%	32	69.6%	2	4.3%	2	4.3%	3	6.5%	6	13.0%	0	.0%
Asthma	1	2.2%	0	.0%	34	75.6%	2	4.4%	2	4.4%	0	.0%	6	13.3%	0	.0%
Chronic conditions	0	.0%	1	2.1%	31	64.6%	2	4.2%	2	4.2%	0	.0%	12	25.0%	0	.0%
Chronic pain problems	0	.0%	2	4.3%	29	63.0%	2	4.3%	2	4.3%	1	2.2%	10	21.7%	0	.0%
Colic in babies	0	.0%	2	4.5%	30	68.2%	1	2.3%	7	15.9%	0	.0%	4	9.1%	0	.0%
Constipation	0	.0%	0	.0%	31	68.9%	3	6.7%	10	22.2%	0	.0%	1	2.2%	0	.0%
Diabetes Mellitus	0	.0%	0	.0%	35	76.1%	0	.0%	2	4.3%	0	.0%	9	19.6%	0	.0%
Sore throat	1	2.1%	0	.0%	31	64.6%	1	2.1%	13	27.1%	0	.0%	2	4.2%	0	.0%
Fractures	1	2.2%	2	4.3%	23	50.0%	1	2.2%	1	2.2%	3	6.5%	15	32.6%	0	.0%
Gastro-intestinal problems	0	.0%	0	.0%	35	76.1%	2	4.3%	2	4.3%	0	.0%	7	15.2%	0	.0%
Headaches	0	.0%	0	.0%	33	71.7%	2	4.3%	8	17.4%	0	.0%	2	4.3%	1	2.2%
High Blood Pressure	0	.0%	0	.0%	40	87.0%	0	.0%	2	4.3%	1	2.2%	3	6.5%	0	.0%
Joint/ligament sprains	0	.0%	6	12.8%	24	51.1%	0	.0%	2	4.3%	7	14.9%	8	17.0%	0	.0%
Low back pain	0	.0%	10	20.8%	22	45.8%	1	2.1%	4	8.3%	9	18.8%	2	4.2%	0	.0%
Low back pain (in pregnancy)	1	2.4%	7	16.7%	20	47.6%	1	2.4%	1	2.4%	7	16.7%	5	11.9%	0	.0%
Muscle spasm/strain	1	2.2%	8	17.4%	24	52.2%	1	2.2%	2	4.3%	8	17.4%	2	4.3%	0	.0%
Neck pain	0	.0%	11	23.9%	23	50.0%	1	2.2%	2	4.3%	6	13.0%	3	6.5%	0	.0%
Osteoarthritis	1	2.3%	2	4.7%	23	53.5%	2	4.7%	2	4.7%	2	4.7%	11	25.6%	0	.0%
Osteoporosis	1	2.4%	3	7.1%	24	57.1%	1	2.4%	1	2.4%	1	2.4%	11	26.2%	0	.0%
Pins and needles/ numbness	0	.0%	4	9.3%	26	60.5%	2	4.7%	2	4.7%	3	7.0%	6	14.0%	0	.0%

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Postural Abnormalities	0	.0%	5	12.2%	19	46.3%	3	7.3%	1	2.4%	3	7.3%	10	24.4%	0	.0%
Post orthopaedic surgery rehabilitation	2	4.7%	6	14.0%	20	46.5%	2	4.7%	1	2.3%	4	9.3%	8	18.6%	0	.0%
Shoulder pain	0	.0%	9	20.5%	19	43.2%	1	2.3%	2	4.5%	7	15.9%	5	11.4%	1	2.3%
Slipped disc/disc herniation	1	2.2%	6	13.3%	24	53.3%	0	.0%	1	2.2%	5	11.1%	8	17.8%	0	.0%
Sports injuries	1	2.1%	8	17.0%	19	40.4%	1	2.1%	1	2.1%	11	23.4%	5	10.6%	1	2.1%
Temporomandibular joint problems	0	.0%	5	12.5%	22	55.0%	1	2.5%	1	2.5%	3	7.5%	8	20.0%	0	.0%
Viral Infections	1	2.4%	1	2.4%	31	75.6%	0	.0%	4	9.8%	0	.0%	3	7.3%	1	2.4%
Whiplash injuries	1	2.4%	6	14.6%	20	48.8%	0	.0%	2	4.9%	5	12.2%	6	14.6%	1	2.4%

The results of this Table follow the standard allopathic paradigm with the selection of practitioners for particular conditions (World Health Organisation, 2008). It is however of interest to note that there is a subtle association between the perceived concept of chiropractic and the treatment of conditions associated with the neuromusculoskeletal system (in particular back pain) as has been found in other studies including Reubens (1996), Gaumer *et al.* (2002), Hunter (2004), Louw (2005), Van As (2005), World Federation of Chiropractic (2005), Kew (2006), Rattan (2007), Butt (2008), Cloete (2008), Heslop (2008), Maharaj (2008), Naidoo (2008) and Palmer (2008).

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### 4.6.3.6 Q 5.5 “Please rate each of the following professions in terms of their importance in serving in the South African health care system”

Table 4.109 shows that the 68% majority of respondents felt that the field of medicine played the most important role in serving the South African health care system, followed by Pharmacy (64%), Nursing (63%) and Emergency care (61%). Whilst just 13% of respondents scaled chiropractic as the highest point of 4, yet 36% scaled chiropractic as point 3.

**Table 4.109: Please rate each of the following professions in terms of their importance in serving in the South African health care system**

	1		2		3		4	
	Least important role						Most important role	
	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Medicine	4	10.5%	3	7.9%	5	13.2%	26	68.4%
Pharmacy	3	7.1%	4	9.5%	8	19.0%	27	64.3%
Nursing	5	12.5%	2	5.0%	8	20.0%	25	62.5%
Emergency care	2	4.9%	2	4.9%	12	29.3%	25	61.0%
Physiotherapy	2	5.4%	3	8.1%	13	35.1%	19	51.4%
Dentistry	2	5.1%	3	7.7%	15	38.5%	19	48.7%
Optometry	4	10.5%	3	7.9%	13	34.2%	18	47.4%
Traditional healing	12	29.3%	7	17.1%	14	34.1%	8	19.5%
Acupuncture	8	34.8%	7	30.4%	5	21.7%	3	13.0%
Chinese medicine	13	41.9%	6	19.4%	8	25.8%	4	12.9%
Chiropractic	7	22.6%	9	29.0%	11	35.5%	4	12.9%
Homeopathy	7	20.6%	14	41.2%	9	26.5%	4	11.8%
Chiropody	8	25.8%	14	45.2%	6	19.4%	3	9.7%
Herbalism	14	36.8%	11	28.9%	11	28.9%	2	5.3%
Ayurvedic Medicine	15	51.7%	9	31.0%	4	13.8%	1	3.4%

## Chapter 4: RESULTS AND DISCUSSION

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The outcomes of this question supports the outcomes alluded to in Sections 4.2.1.1.13 and 4.2.2.19 (Table 4.9.6) where it was indicated that there seemed to be an overriding “medical culture” which was supported by an individual ethnic/cultural slant from the side of the respondents. This is reflected in the current results; the highlighted green section refers to those health professions that are principally part of the allopathic/medical paradigm, followed closely by the red section that identifies traditional or cultural alternatives in terms of traditional healing, followed by the CAM therapies highlighted in the blue, yellow and grey sections of the table. The publications by Postman *et al.* (1948) and Philbin *et al.* (2008) support this outcome in their research, reflecting that the paradigms of reference that people utilise are often the hidden frameworks that people utilise to interpret and rank information. It is therefore clear in these terms that chiropractic holds a lesser priority in terms of the medical paradigm as well as the cultural paradigm of the respondents in this study and explains why chiropractic has received little attention and why the respondents have been unable to overcome the strength of the detractors to knowledge and perception of the chiropractic profession.

## Chapter 4: RESULTS AND DISCUSSION

### 4.6.3.7 Q 5.6 “To what extent is chiropractic accepted by the medical profession and the public of South Africa?”

Table 4.110 shows that the 40% majority of respondents felt that chiropractic was accepted to a slight extent by the medical profession and the public of South Africa.

**Table 4.110: To what extent is chiropractic accepted by the medical profession and the public of South Africa?**

		Count	Column N %
To what extent is chiropractic accepted by the medical profession and the public of South Africa?	Great extent	5	12.5%
	Moderate extent	14	35.0%
	Slight extent	16	40.0%
	No active role	5	12.5%

This outcome again reflects the assertions made in Section 4.6.3.6. and agrees with the work of Postman *et al.*, (1948) and Philbin *et al.*, (2008).

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### 4.6.3.8 Q 6.1 “To what extent do you believe chiropractors to be competent in neuromusculoskeletal examination and diagnosis?”

Table 4.111.1 shows that the 43% majority of respondents felt that chiropractors were very competent in neuromusculoskeletal examination and diagnosis. 31% of respondents were unable to comment.

**Table 4.111.1: To what extent do you believe chiropractors to be competent in neuromusculoskeletal examination and diagnosis?**

	Very competent		Moderately competent		Slightly competent		Incompetent		Very incompetent		Unable to comment	
	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
To what extent do you believe chiropractors to be competent in neuromusculoskeletal	22	43.1%	7	13.7%	3	5.9%	2	3.9%	1	2.0%	16	31.4%

## Chapter 4: RESULTS AND DISCUSSION

### 4.6.3.9 Q 6.2 “To what extent do you believe chiropractors to be competent in general medical management of patients?”

Table 4.111.2 shows that 29% of respondents felt that chiropractors were very competent in general medical management of patients whilst an equivalent 29% of respondents were unable to comment.

**Table 4.111.2: To what extent do you believe chiropractors to be competent in general medical management of patients?**

	Very competent		Moderately competent		Slightly competent		Incompetent		Very incompetent		Unable to comment	
	Count	Row %	Count	Row %	Count	Row %	Count	Row %	Count	Row %	Count	Row %
To what extent do you believe chiropractors to be competent in general medical management?	15	29.4 %	13	25.5%	5	9.8%	2	3.9%	1	2.0%	15	29.4%

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### 4.6.3.10 **Q 6.3 “Do you think it is useful for patients to consult with chiropractors for preventative or maintenance care on a regular basis?”**

Table 4.112 shows that 75% of respondents felt it was useful for patients to consult with chiropractors for preventative or maintenance care on a regular basis whilst 25% of respondents felt it was not useful for patients to do so.

**Table 4.112: Do you think it is useful for patients to consult with chiropractors for preventative or maintenance care on a regular basis?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	35	68.6	74.5	74.5
	No	12	23.5	25.5	100.0
	Total	47	92.2	100.0	
Missing	System	4	7.8		
Total		51	100.0		

## Chapter 4: RESULTS AND DISCUSSION

### 4.6.3.11 **Q 6.4 “What kind of procedures would you expect a chiropractor to be able to perform, when necessary, in his/her assessment of a patient?”**

Table 4.113 shows that 82% of respondents did not expect a chiropractor to be able to perform the procedure of administration of drugs by injection. However 18% of respondents did expect a chiropractor to be able to perform this procedure.

**Table 4.113: Administration of drugs by injection**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	9	17.6	17.6	17.6
	No	42	82.4	82.4	100.0
	Total	51	100.0	100.0	

Table 4.114 shows that 92% of respondents did not expect a chiropractor to be able to perform the procedure of auscultation. In addition 8% of respondents did expect a chiropractor to be able to perform this procedure.

**Table 4.114: Auscultation**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	4	7.8	7.8	7.8
	No	47	92.2	92.2	100.0
	Total	51	100.0	100.0	

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Table 4.115 shows that 82% of respondents did not expect a chiropractor to be able to perform the procedure of cardiovascular review. Although 18% of respondents did expect a chiropractor to be able to perform this procedure.

**Table 4.115: Cardiovascular review**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	9	17.6	17.6	17.6
	No	42	82.4	82.4	100.0
	Total	51	100.0	100.0	

Table 4.116 shows that 82% of respondents did not expect a chiropractor to be able to perform the procedure of administration of drawing of blood through syringes for blood tests. 18% of respondents, however, did expect a chiropractor to be able to perform this procedure.

**Table 4.116: Drawing of blood through syringes for blood tests**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	9	17.6	17.6	17.6
	No	42	82.4	82.4	100.0
	Total	51	100.0	100.0	

Table 4.117 shows that 51% of respondents did not expect a chiropractor to be able to perform the procedure of family history taking, with 49% of respondents expecting a chiropractor to be able to perform this procedure.

**Table 4.117: Family history**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	25	49.0	49.0	49.0
	No	26	51.0	51.0	100.0
	Total	51	100.0	100.0	

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Table 4.118 shows that 90% of respondents did not expect a chiropractor to be able to perform the procedure of genito-urinary review.

**Table 4.118: Genito-urinary review**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	5	9.8	9.8	9.8
	No	46	90.2	90.2	100.0
	Total	51	100.0	100.0	

Table 4.119 shows that 59% of respondents did not expect a chiropractor to be able to perform procedures related to assessment of the musculoskeletal system (including palpation). It is noted that 41% of respondents did expect a chiropractor to be able to perform this procedure.

**Table 4.119: Musculoskeletal Assessment including palpation**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	21	41.2	41.2	41.2
	No	30	58.8	58.8	100.0
	Total	51	100.0	100.0	

Table 4.120 shows that 71% of respondents did not expect a chiropractor to be able to perform the procedure of neurological examination. Twenty nine percent of respondents, however, did expect a chiropractor to be able to perform this procedure.

**Table 4.120: Neurological exam**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	15	29.4	29.4	29.4
	No	36	70.6	70.6	100.0
	Total	51	100.0	100.0	

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Table 4.121 shows that 57% of respondents did not expect a chiropractor to be able to perform the procedure of central nervous system review. 43% of respondents, however, did expect a chiropractor to be able to perform this procedure.

**Table 4.121: Central nervous system review**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	22	43.1	43.1	43.1
	No	29	56.9	56.9	100.0
	Total	51	100.0	100.0	

Table 4.122 shows that 65% of respondents did not expect a chiropractor to be able to perform the procedure cranial nerve review, with 35% of respondents expecting a chiropractor to be able to perform this procedure.

**Table 4.122: Cranial nerve review**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	18	35.3	35.3	35.3
	No	33	64.7	64.7	100.0
	Total	51	100.0	100.0	

Table 4.123 shows that 63% of respondents did not expect a chiropractor to be able to perform the procedure of peripheral nervous system review.

**Table 4.123: Peripheral nervous system review**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	19	37.3	37.3	37.3
	No	32	62.7	62.7	100.0
	Total	51	100.0	100.0	

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Table 4.124 shows that 57% of respondents did not expect a chiropractor to be able to perform an orthopaedic examination (43% of respondents did expect a chiropractor to be able to perform these procedures).

**Table 4.124: Orthopedic exam**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	22	43.1	43.1	43.1
	No	29	56.9	56.9	100.0
	Total	51	100.0	100.0	

Table 4.125 shows that 53% of respondents did not expect a chiropractor to be able to take a past medical history taking from a patient whereas 47% of respondents did expect this from a chiropractor.

**Table 4.125: Past medical history**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	24	47.1	47.1	47.1
	No	27	52.9	52.9	100.0
	Total	51	100.0	100.0	

Table 4.126 shows that 84% of respondents did not expect a chiropractor to be able to prescribe scheduled medication, with 16% of respondents thinking that they could expect a chiropractor to prescribe medication.

**Table 4.126: Prescribe scheduled medication**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	8	15.7	16.0	16.0
	No	42	82.4	84.0	100.0
	Total	50	98.0	100.0	
Missing	System	1	2.0		
Total		51	100.0		

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Table 4.127 shows that 71% of respondents did not expect a chiropractor to be able to take x-rays, with 29% of respondents expecting this service to be associated with a chiropractor.

**Table 4.127: Radiological exam**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	15	29.4	29.4	29.4
	No	36	70.6	70.6	100.0
	Total	51	100.0	100.0	

Table 4.128 shows that 82% of respondents did not expect a chiropractor to be able to perform a respiratory review (18% of respondents did expect this however).

**Table 4.128: Respiratory review**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	9	17.6	17.6	17.6
	No	42	82.4	82.4	100.0
	Total	51	100.0	100.0	

Table 4.129 shows that 75% of respondents did not expect a chiropractor to be able to take a social history, whereas 26% of respondents did expect a chiropractor to be able to do so.

**Table 4.129: Social history**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	13	25.5	25.5	25.5
	No	38	74.5	74.5	100.0
	Total	51	100.0	100.0	

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Table 4.130 shows that 53% of respondents did not expect a chiropractor to be able to take vital signs. Conversely 47% of respondents did expect a chiropractor to be able to do so.

**Table 4.130: Vital signs (heart rate, blood pressure, respiration)**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	24	47.1	47.1	47.1
	No	27	52.9	52.9	100.0
	Total	51	100.0	100.0	

In summary of the above, the chiropractic profession is seen to be able to complete the following:

- History taking 49% (Table 4.117)
- Past medical history taking 47% (Table 4.125)
- Assessment of vital signs 47% (Table 4.120)
- Neuromusculoskeletal examination 43% (Table 4.120)
- Central nervous system examination 43% (Table 4.121)
- Orthopaedic examination 43% (Table 4.124)
- Musculoskeletal examination 41% (Table 4.119)
- Peripheral neurological examination 37% (Table 4.123)
- Cranial nerve examination 35% (Table 4.122)
- General medical management 29% (Table 4.111.2)
- Taking of x-rays 29% (Table 4.127)
- Neurological examination 29% (Table 4.111.1)
- Social history taking 26% (Table 4.129)
- Drug administration 18% (Table 4.113)
- Cardiovascular examination 18% (Table 4.115)
- Drawing of blood 18% (Table 4.116)
- Respiratory examination 18% (Table 4.128)
- Prescription of medicines 16% (Table 4.126)
- Genito-urinary examination 10% (Table 4.118)
- Auscultation 8% (Table 4.114)

Based on the outcomes of the above, it is seen that the respondents do not actually understand the minimum requirements for registration as a chiropractor (Allied Health Professions Act 63 of 1982 (as amended)), yet they do perceive the chiropractic profession as a health care maintenance and disease prevention

## Chapter 4: RESULTS AND DISCUSSION

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profession (Table 4.112). These two parameters are seen to clash in this instance because it cannot be a disease prevention or health maintenance profession if it, as a profession, is seen as inept in the assessment of the patient from the case history through the examination of the patient as a whole (i.e. all examination procedures). It is thus evident that the respondents are not informed about the extensive training received by chiropractors (Allied Health Professions Act 63 of 1982 (as amended)); Faculty of Health Sciences (2009). Furthermore, the respondents seem to be influenced by the assumption that as an “Allied” (complementary alternative) health profession chiropractic is preventative, yet it is seen as not having the skills to be able to fulfil this role adequately. This perception is not unlike that presented in the World Health Report (World Health Organisation, 2008; Chapman-Smith, 2009), where it is indicated that mainstream medicine does not fully understand the CAMs although certain traits are attributed to this group of professions based only on the societal norms and values attributed to these professions.

Both the above points again steer the outcomes of this research to acknowledge that the medical paradigm and the individual ethnic/cultural influences placed on the respondents influences perception and perceptual set (Hayes, 1994; Robbins, 1996; Berg *et al.*, 1999).

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### 4.6.3.12 Q 7.1 “Please rate each of the following statements reflecting your perception of the chiropractic profession”

Table 4.131 (continued over the next page) shows that 41% of respondents strongly agreed that their perception of the chiropractic profession was that they were not informed enough to comment whereas 35% of respondents strongly agreed that they had never heard of chiropractic and did not know what it was.

**Table 4.131: Please rate each of the following statements reflecting your perception of the chiropractic profession**

	0		1		2		3		4	
	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
I have never heard of chiropractic before; I do not know what it is	0	.0%	11	29.7%	10	27.0%	3	8.1%	13	35.1%
I have heard of it before but I do not know much about it	0	.0%	14	32.6%	10	23.3%	5	11.6%	14	32.6%
Chiropractic does more harm than good	0	.0%	22	62.9%	6	17.1%	5	14.3%	2	5.7%
It is a very effective treatment for muscle, joint and nerve conditions	18	35.3%	5	9.8%	6	11.8%	12	23.5%	10	19.6%
I am uncomfortable with chiropractic	0	.0%	19	47.5%	7	17.5%	8	20.0%	6	15.0%
I think it has a valuable role in the health care system	12	23.5%	2	3.9%	8	15.7%	12	23.5%	17	33.3%
It may be effective for some patients	9	17.6%	2	3.9%	9	17.6%	15	29.4%	16	31.4%

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I prefer chiropractic treatment over most other physical therapies	14	27.5%	16	31.4%	11	21.6%	5	9.8%	5	9.8%
I am not informed enough to comment	0	.0%	7	18.9%	9	24.3%	6	16.2%	15	40.5%

The outcomes of this question lends credence to the suggested factors that were identified in the previous discussion of Section 4.6.3.11 including the premise that mainstream medicine does not fully understand CAM.

### 4.6.3.13 Q 7.2 “Which one of the following best reflects your view of chiropractic treatment?”

Table 4.132 shows that the view of chiropractic treatment for 47% of the respondents was that they were not informed enough to comment. 33% of respondents felt chiropractic treatment was excellent treatment for some neuro-musculo-skeletal (NMS) conditions.

**Table 4.132: Which one of the following best reflects your view of chiropractic treatment?**

		Count	Column N %
Which one of the following best reflects your view of chiropractic treatment?	Excellent treatment for some NMS conditions	16	32.7%
	Uncomfortable with it but effective for some conditions	10	20.4%
	I am not informed enough to comment	23	46.9%
	It is quackery and does more harm than good	0	.0%

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It is of interest to note that at least 47% of the respondents were honest enough to indicate that they had no idea about the chiropractic profession. It would seem that the 20% that reported that they were uncomfortable with the profession did so from a valid vantage point (Tables 4.111.1 through 4.130). If this assumption were to be true, then it indicates that the respondents in this category actually do not realise that they have made a decision not based on information available about the profession, but rather with reference to an individual ethnic/cultural frame of reference as well as a medical/allopathic frame of reference. It is therefore critical for the chiropractic profession to ensure that the information about the chiropractic reaches the respondents and/or committees on which the respondents serve so as to re-shape the paradigm from which these respondents appear to be selecting, organising and interpreting information (Chaffe, 1997; Kehoe, 1998; World Health Organisation, 2008).

## Chapter 4: RESULTS AND DISCUSSION

### 4.6.3.14 Q 7.3 “Do you agree with the following views about the chiropractic profession? Please place an ‘X’ in the correct box to indicate ‘YES’ or ‘NO’ ”

**Table 4.133: Do you agree with the following views about the chiropractic profession?**

	Yes		No	
	Count	Row %	Count	Row %
Accessible to everybody	9	22.0%	32	78.0%
A competitive profession to physiotherapy	19	51.4%	18	48.6%
A complementary profession to physiotherapy	29	78.4%	8	21.6%
A drug intervention health care service	8	24.2%	25	75.8%
A preventative health care service	18	58.1%	13	41.9%
A primary health care service	18	56.3%	14	43.8%
A rehabilitative health care service	30	83.3%	6	16.7%
A secondary health care service	22	66.7%	11	33.3%
A tertiary health care service	17	58.6%	12	41.4%
A scientific alternative health care profession	17	56.7%	13	43.3%
An emergency health care service	13	43.3%	17	56.7%
Cost effective	19	59.4%	13	40.6%
Lacking scientific background	12	38.7%	19	61.3%
I have no opinion/I do not know enough about it	24	68.6%	11	31.4%
Not needed in South Africa	6	22.2%	21	77.8%
Should be accessible to everybody	30	90.9%	3	9.1%
Should be part of an additional medical aid package	29	93.5%	2	6.5%
Should be covered by standard Medical aid	33	91.7%	3	8.3%
Should be recognized by law	34	94.4%	2	5.6%
Should not be covered by Medical Aid	16	47.1%	18	52.9%

Results from Table 4.133 indicate that 69% of respondents had no opinion/did not know enough to comment.

Notwithstanding this, Table 4.133 shows that majority of respondents feel the chiropractic profession is not accessible to everyone (78%), although it should be

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accessible to everybody (91%). This stands to reason because chiropractic is not part of the medical paradigm as it is classified as a complementary alternative medicine and therefore does not feature within the medical paradigm and individual ethnic/cultural paradigms of the respondents (Postman *et al.*, 1948; Philbin *et al.*, 2008; World Health Organisation, 2008). Thus it stands to reason that they would indicate that chiropractic is not available to everyone, but that as a health care profession it, in fact, should be made available to everyone.

Furthermore, the respondents felt chiropractic is a competitive profession to physiotherapy (51%), even though 78% of respondents felt it was complementary to physiotherapy. In line with this, respondents felt chiropractic was principally a rehabilitative (83%) health care profession. This finding supports the picture that was generated with regards to the perceived ability of patient assessment, diagnosis and treatment by the chiropractor (Section 4.6.3.11). However it contradicts one finding from Table 4.112, where the respondents initially indicated that the chiropractic profession was a disease prevention/health care maintenance profession, instead is now reflected as a rehabilitative profession first. This reported contradiction is difficult to unless it has two sources:

- Rehabilitative as a result of the association the respondents make between chiropractic and physiotherapy (Table 4.133) and
- Disease prevention/health care maintenance as a result of the association between chiropractic and its classification as a CAM profession (Chapman-Smith, 2009).

At this point however these are mere hypotheses and therefore would require further investigation, even though it supports the work of Caplan and Associates (1994).

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Another dichotomy in Table 4.133 is that the chiropractic profession was seen to fit the preventative health care model 58% of the time and the primary health care role only 56% of the time; although the chiropractic health care service was seen to be to a greater extent a secondary health care service (67%), or possibly a tertiary (59%) health care service.

Again this outcome may have two sources of a conflicting nature:

- Disease prevention or health care maintenance fit into the primary health care model and with the association between chiropractic and its classification as a CAM profession, there is an assumption that chiropractic is indeed a primary health care profession (Chapman-Smith, 2009); however conversely,
- Chiropractic is perceived to be a specialist profession that concentrates principally on the treatment of neuromusculoskeletal conditions with particular reference to the spine and related joints as found by Reubens (1996), Gaumer *et al.* (2002), Hunter (2004), Louw (2005), Van As (2005), World Federation of Chiropractic (2005), Kew (2006), Rattan (2007), Butt (2008), Cloete (2008), Heslop (2008), Maharaj (2008), Naidoo (2008) and Palmer (2008). Therefore in this context it may be seen as a secondary and possibly in some instances as a tertiary health care profession.

At this point however these are mere hypotheses and therefore would require further investigation, even though it supports the work of Caplan and Associates (1994).

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### 4.6.3.15 Summary regarding perception-related questions

**Table 4.134: Summary of statistics for perceptions score**

N	Valid	51
	Missing	0
Mean		38.2353
Std. Deviation		19.35030
Minimum		.00
Maximum		83.33
Percentiles	25	24.2424
	50	34.8485
	75	51.5152

Table 4.134 shows that the mean perceptions score was 38.2% with a range from 0 to 83.3%. Thus perceptions towards chiropractic tended to be relatively negative.

These negative perceptions are in keeping with the results of Reubens (1996) [orthopaedic surgeons, neurosurgeons and neurologists], Hunter (2004) [physiotherapists], Louw (2005) [general practitioners], Van As (2005) [career guidance councillors], Kew (2006) [personal trainers], Rattan (2007) [matric scholars], Butt (2008) [rugby coaches], Heslop (2008) [paediatricians], Maharaj (2008) [first year medical students], Naidoo (2008) [biokineticists] and Palmer (2008) [pharmacists] in the South African context.

According to Caplan and Associates (1994), these negative perceptions seem to stem from ignorance, bias and misinformation rather than fact. It is therefore important that the chiropractic profession attempts to educate the general population as well as those members of the population that are given the responsibility to govern and manage health care services in South Africa such as the respondents in this study.

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**4.6.4 Objective Four:** To determine any associations between the factors influencing knowledge and perception as well as the demographic factors in order to establish the strength of these relationships.

### **4.6.4.1 Experience of chiropractic vs. Knowledge and Perceptions**

Experience with chiropractic did indeed influence perceptions significantly ( $p=0.035$ ) with those having consulted a chiropractor before having higher perceptions scores. Knowledge was not significantly different between the two groups, but there was a trend suggestive of higher knowledge scores in those who had previously consulted a chiropractor (Table 4.135).

**Table 4.135: T-tests to compare the effect of having consulted with a chiropractor previously on mean knowledge and perceptions scores**

	Have you consulted with a chiropractor before?	N	Mean	Std. Deviation	Std. Error Mean	p value
Knowledge	Yes	7	43.1169	22.77484	8.60808	0.170
	No	43	30.2748	22.60794	3.44768	
Perceptions	Yes	7	52.8139	15.80482	5.97366	0.035
	No	43	36.6455	18.57516	2.83269	

These outcomes are congruent with the work of Caplan and Associates (1994) and indicate that these enablers should be utilised in order to inform the respondents about chiropractic. This is in order to overcome the significant weight that the detractors currently hold within the paradigms that the respondents currently work within.

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### 4.6.4.2 Province vs. Knowledge and Perceptions

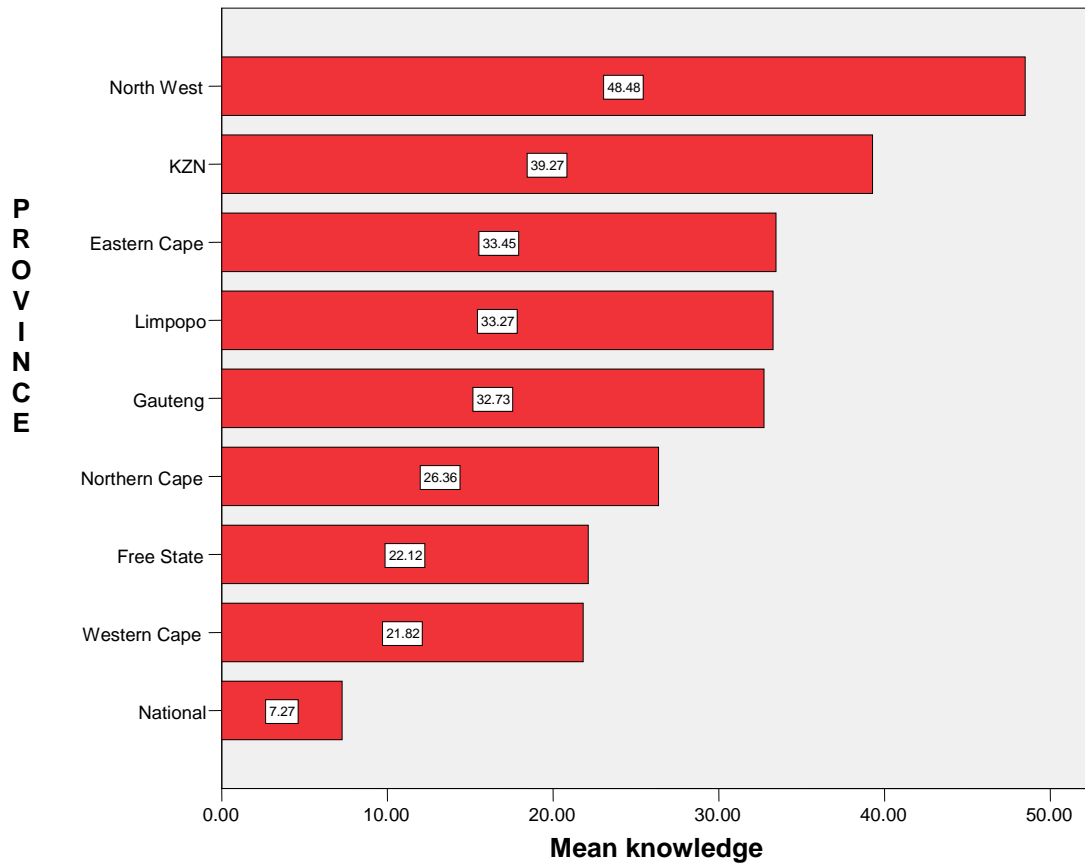
Table 4.136 shows that there was no significant difference between the provinces in terms of knowledge ( $p=0.749$ ). It is however acknowledged that the group sizes for each of the provinces were very small and therefore it is possible that the outcomes cannot be accurately reflected and that larger group/sample sizes may have resulted in a different outcome.

**Table 4.136: ANOVA test to compare mean knowledge between the Provinces**

		Sum of Squares	df	Mean Square	F	Sig.
Knowledge	Between Groups	2844.259	8	355.532	.629	0.749
	Within Groups	23736.198	42	565.148		
	Total	26580.457	50			

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Figure 4.4 shows that the North West province had the highest mean knowledge score, followed by KZN, then Eastern Cape and Limpopo.



**Figure 4.4: Mean knowledge score by Province**

Firstly it must be stated that there is a chance that the low numbers in some provinces skewed the results of this table.

Secondly it must be considered that the answers that were given in response to the knowledge questions did reflect dichotomous responses and that these results seem to suggest that there are primary (stronger and overriding) and secondary (weaker and easily overridden) categories with the detractors having

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more primary detractor factors and the enablers having fewer or even multiple secondary enablers.

Based on results of the knowledge questions, it would seem that the largest of the detractors are:

- Culture (Postman *et al.*, 1948; Philbin *et al.*, 2008);
- Gender (MacLennan and Wilson, 1996; National Centre for Complementary and Alternative Medicine, 2004; Tatalias, 2006);
- Development of the honourable members within the medical paradigm and their isolation within this paradigm (Hupkes, 1990; World Health Organisation, 2008). This is compounded by their inability to actively practice and interact on a patient centred basis with other health care providers (Heslop, 2008); and
- Unilateral programme development on diseases and lopsided health care within the health care system determining access to knowledge (Hupkes, 1990; World Health Organisation, 2008).
- The professions inability to project itself as a primary contact profession along with the over emphasis that is perceived to be related to spinal care and spinal health (Gaumer *et al.*, 2002; World Federation of Chiropractic, 2005; Chapman-Smith, 2009).

Furthermore it would seem that the enablers to the process of accessing and gaining knowledge of chiropractic are not as strong as the detractors, thus not facilitating a process of enquiry and research into chiropractic as a profession.

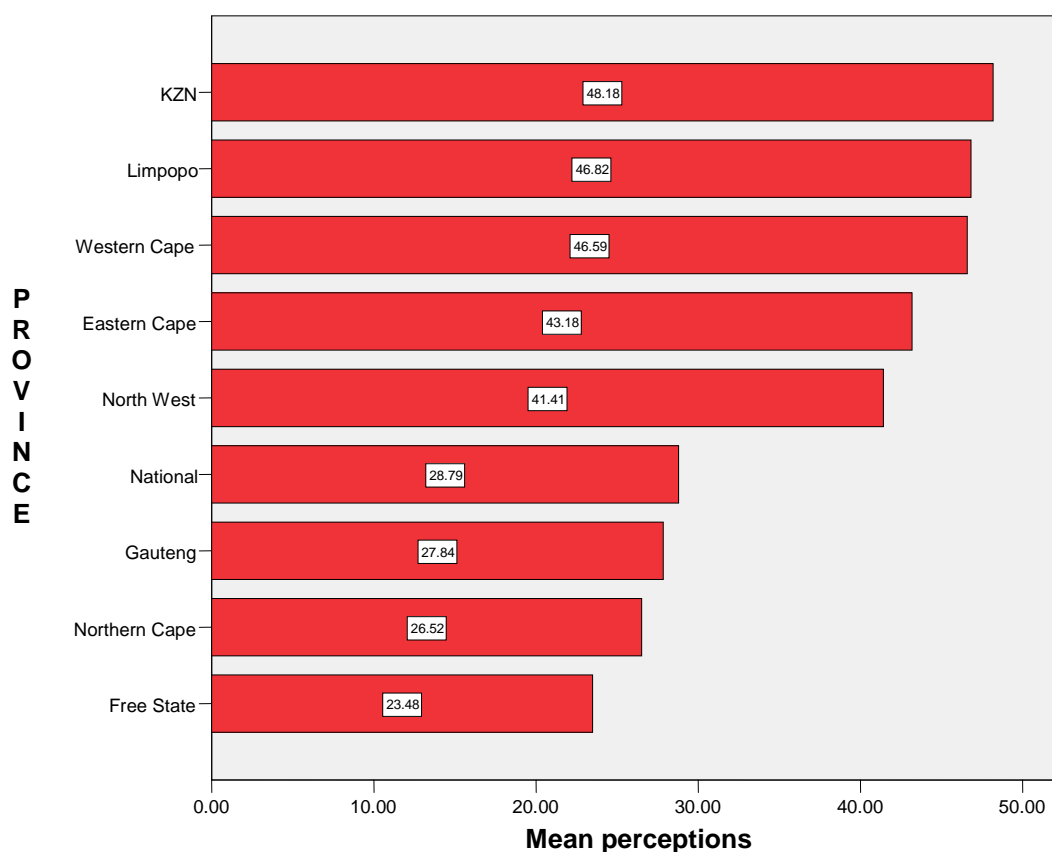
The extent to which these enablers and detractors function within the various HPCs should therefore be further analysed in order to determine why the expected provinces of KZN, Gauteng and the Western Cape did not fare well based on the higher populations of chiropractors in the major centers in each of these regions.

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Table 4.137 shows that perceptions did not differ significantly by province ( $p=0.125$ ). KZN, Limpopo and Western Cape had the highest perceptions scores (Figure 4.5).

**Table 4.137: ANOVA test to compare mean perceptions score between the Provinces**

		Sum of Squares	df	Mean Square	F	Sig.
Perceptions	Between Groups	4594.088	8	574.261	1.707	0.125
	Within Groups	14127.621	42	336.372		
	Total	18721.709	50			



**Figure 4.5: Mean Perceptions score by Province**

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The outcomes of the perception rating are more in line with the concentrations of chiropractors in the country and it would seem that the factors affecting knowledge as discussed for Table 4.136 and Figure 4.4 would not necessarily be appropriate here, however it does raise an interesting debate with regards the relationship between knowledge and perception. This may well stem from the dichotomies discussed before in Section 4.6.3.14.

### 4.6.4.3 Perceptions vs. Knowledge

Table 4.138 shows that there was a statistically significant positive correlation between knowledge and perceptions score ( $r=0.394$ ,  $p=0.004$ ). The strength of the correlation was, however, weak. Figure 4.6 shows that in general as knowledge increased so did perceptions.

**Table 4.138: Correlation between knowledge and perceptions score**

		Perceptions
Knowledge	Pearson Correlation	0.394(**)
	Sig. (2-tailed)	0.004
	N	51

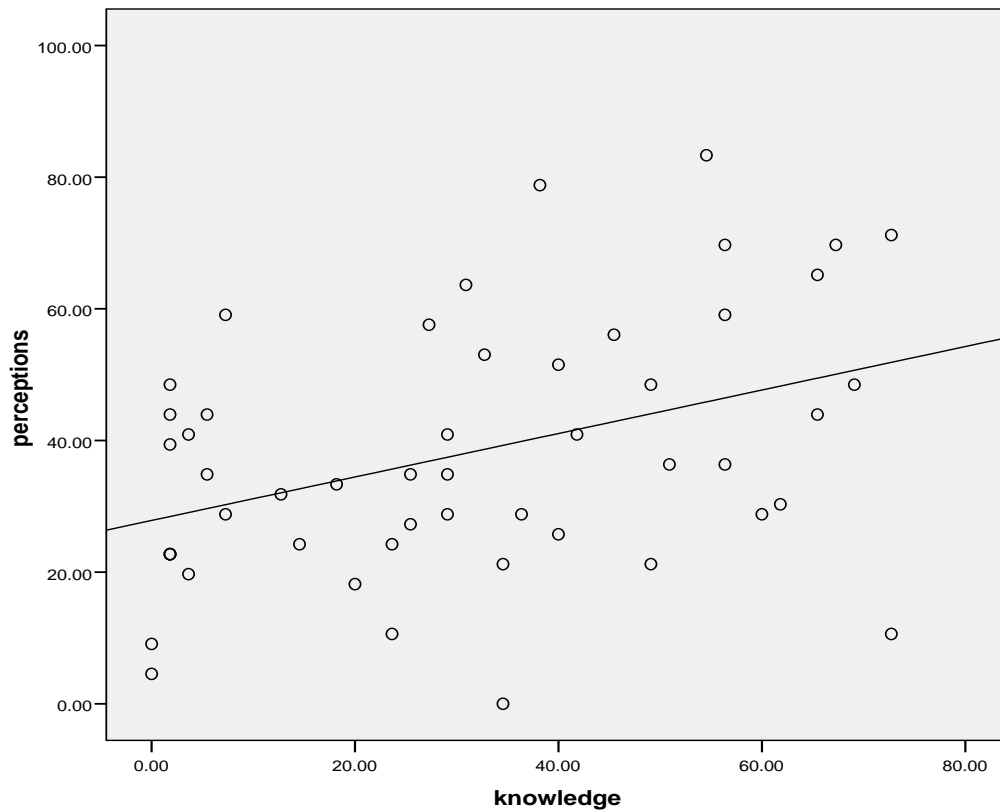
\*\* Correlation is significant at the 0.01 level (2-tailed).

This confirms that the sample size was small in that the correlation was weak, nevertheless the research was able to establish that there was a correlation between the knowledge and the perception as found in previous research (Talmage, 2007). However this positive correlation does pose a problem in trying to explain the perceived inverse associations between the mean knowledge and perception scores and their relationship to the individual province HPCs. It is therefore suggested that a qualitative analysis be undertaken in order to delve into the relationship in that there are too few respondents to make a factor analysis possible within this context.

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This is particularly true when the results from the scatter plot graph (Figure 4.5) highlights the number of outliers and their possible effect on the statistical outcome of the correlations.



**Figure 4.6: Scatter plot of knowledge vs. perception score**

## Chapter 4: RESULTS AND DISCUSSION

### 4.6.4.4 Demographic factors vs. Knowledge and Perception score

Table 4.139 shows that the knowledge and perception scores were not significantly different between males and females ( $p=0.765$  and  $0.827$  respectively).

**Table 4.139: T-tests to compare mean knowledge and perception scores between the genders**

	Gender	N	Mean	Std. Deviation	Std. Error Mean	p value
Knowledge	Female	20	33.2727	16.76903	3.74967	0.765
	Male	30	31.2727	26.37995	4.81630	
Perceptions	Female	20	38.1818	20.02005	4.47662	0.827
	Male	30	39.3939	18.50548	3.37862	

Table 4.140 shows that there was no correlation between age and knowledge ( $r=0.077$ ) and age and perception scores ( $r=-0.125$ ).

**Table 4.140: Correlation between age and knowledge and perception scores**

		What was your age at your last birthday?
Knowledge	Pearson Correlation	.077
	Sig. (2-tailed)	.615
	N	45
Perceptions	Pearson Correlation	-.124
	Sig. (2-tailed)	.417
	N	45

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Neither knowledge nor perceptions scores were correlated with number of dependants, or length of time on the HPC or length of time being involved with health care oversight (Table 4.141).

**Table 4.141: Correlation between dependants, length of time on the HPC and knowledge and perception scores**

		How many dependants do you have?	For how long have you served on the HPC	For how long have you been involved at municipal/provincial/national level health care oversight?
Knowledge	Pearson Correlation	-.089	.033	.293
	Sig. (2-tailed)	.556	.831	.053
	N	46	44	44
Perceptions	Pearson Correlation	-.115	.028	-.042
	Sig. (2-tailed)	.446	.858	.787
	N	46	44	44

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Table 4.142 shows that there was some variation between the ethnic groups in terms of the scores. The mean scores were highest in the Indian population. However, the differences between the ethnic groups were not statistically significant.

**Table 4.142: Summary statistics of knowledge and perceptions scores by Ethnic group**

Ethnic Group		Knowledge	Perceptions
Black	Mean	30.3030	37.7778
	N	30	30
	Std. Deviation	19.45002	17.05835
Coloured	Mean	21.4545	34.5455
	N	5	5
	Std. Deviation	17.50561	26.53462
Indian	Mean	50.4545	52.6515
	N	4	4
	Std. Deviation	29.55594	15.56875
White	Mean	34.5455	41.0774
	N	9	9
	Std. Deviation	27.66386	21.67308
Other	Mean	37.2727	29.5455
	N	2	2
	Std. Deviation	50.14030	26.78435

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Table 4.143 shows that having medical aid cover did not affect knowledge or perceptions significantly, although those without medical aid cover had a borderline non significantly higher perceptions score than those with medical aid ( $p=0.064$ ).

**Table 4.143: T-tests to compare mean knowledge and perceptions score between those with and without medical aid.**

	Do you have personal medical aid cover?	N	Mean	Std. Deviation	Std. Error Mean	p value
Knowledge	Yes	46	32.6877	23.37694	3.44674	0.524
	No	4	25.0000	15.94584	7.97292	
Perceptions	Yes	46	37.4506	18.41507	2.71515	0.064
	No	4	55.6818	18.97975	9.48988	

## Chapter 4: RESULTS AND DISCUSSION

Table 4.144 shows that although those with Masters degrees had higher knowledge and perceptions scores than the other education levels, the differences were not statistically significant ( $p=0.612$  and  $0.410$  respectively).

**Table 4.144: Summary statistics for knowledge and perceptions by highest qualification**

Highest qualification		Knowledge	Perceptions
< Grade 12	Mean	15.4545	34.0909
	N	2	2
	Std. Deviation	19.28473	7.49962
Grade 12	Mean	22.4242	29.7980
	N	6	6
	Std. Deviation	27.63796	25.88501
Certificate	Mean	14.5455	24.2424
	N	1	1
	Std. Deviation	N/A	N/A
Diploma	Mean	36.3636	39.0572
	N	9	9
	Std. Deviation	20.32789	23.32273
Bachelors degree/medical degree	Mean	31.3131	37.4299
	N	27	27
	Std. Deviation	24.79840	16.73442
Masters degree	Mean	45.0909	56.3636
	N	5	5
	Std. Deviation	12.49132	18.35148
PhD	Mean	25.4545	34.8485
	N	1	1
	Std. Deviation	.	.
Total	Mean	31.4439	38.2353
	N	51	51
	Std. Deviation	23.05665	19.35030

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Table 4.145 shows that no significant difference existed between the mean knowledge and perception scores and education categories.

**Table 4.145: ANOVA test to compare mean knowledge and perceptions score between the education categories**

		Sum of Squares	df	Mean Square	F	Sig.
Knowledge	Between Groups	2470.374	6	411.729	.751	.612
	Within Groups	24110.083	44	547.956		
	Total	26580.457	50			
Perceptions	Between Groups	2335.532	6	389.255	1.045	.410
	Within Groups	16386.177	44	372.413		
	Total	18721.709	50			

From the demographic factors and their correlation with knowledge and perception, it can be seen that the assertion made earlier in the discussion of the results (Section 4.6.1.1.13) is validated and that individual ethnic or cultural and/or medical paradigm influences (Postman *et al.*, 1948; Philbin *et al.*, 2008) were definitely a part of that which was indirectly measured in this study. These factors seem to be the principle detractors in terms of the respondents being able to access knowledge about and form solid perceptions around the chiropractic profession.

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From the presented Table 4.146, it can be seen that there is no significant difference between the groups (provinces) or within the groups. This is to be expected with the small sample size.

**Table 4.146: ANOVA test to compare mean knowledge and perceptions score between the Provinces**

		Sum of Squares	df	Mean Square	F	Sig.
Knowledge	Between Groups	2118.358	4	529.590	1.016	0.409
	Within Groups	23453.609	45	521.191		
	Total	25571.967	49			
Perceptions	Between Groups	1106.691	4	276.673	.757	0.559
	Within Groups	16457.313	45	365.718		
	Total	17564.004	49			

## Chapter 4: RESULTS AND DISCUSSION

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### 4.6.4.5 Aims and Objectives revisited

The **aim** of this study was to establish the level of knowledge and the perceptions of honourable members regarding the chiropractic profession [i.e. The HPCs of each of the nine provinces and the National HPC of South Africa (herein referred to as respondents)].

The **first objective** of this study was to document the demographic data of the respondents.

In this study the majority of respondents were Black, with an average age of 48 years (as illustrated by Figure 4.2, Table 4.1 and Figure 4.3 respectively). The most prominent language spoken was English (Table 4.6), which concurs with the fact that the majority of respondents were noted to have obtained a higher education qualification (certificate, diploma or degree) which are mostly lectured in the English language in South Africa (Libhaber and Greene, 2006). In this context a Bachelors degree qualification (Table 4.7) from UNISA (Table 4.8) related to the field of Arts (Table 4.9) was the most common.

In terms of social responsibility, the respondents had on average three dependents (Table 4.2) and in line with the requirements of the position they held in legislature, the majority were members of Parmed medical aid scheme (Tables 4.3 and 4.4), an exclusive medical aid scheme for members of parliament and legislature (Maharaj, 2009). Notwithstanding this the respondents who belonged to a medical aid scheme, were not certain if chiropractic treatment was covered by their medical aid (Table 4.5).

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The ***second objective*** was to determine the level of knowledge of the respondents about the chiropractic profession.

**Null Hypothesis one:**

The level of knowledge of the respondents was not similar to the literature norms that have been identified.

***This hypothesis was rejected as the outcomes were similar to that found in the literature***

The ***third objective*** was to determine the perception of the respondents of the chiropractic profession.

**Null Hypothesis two:**

The perception of the respondents was not similar to the literature norms that have been identified.

***This hypothesis was rejected as the outcomes were similar to that found in the literature***

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The **fourth objective** was to determine any associations between the factors influencing knowledge and perception as well as the demographic factors in order to establish the strength of these relationships.

**Null Hypothesis three:**

No associations existed between the factors influencing knowledge, perception and/or demographic factors.

***This hypothesis was rejected for all outcomes with the exception of ethnicity as all outcomes were similar to that found in the literature with the exception of ethnicity.***

#### **4.6.4.6 Summary and conclusion**

Generally knowledge and perception of chiropractic was low in this population. There were not many factors found to significantly influence these outcomes, with the exception of the paradigms that govern the operations of the respondents within the Health Professions Council with particular reference to the individual ethnic/cultural influences as well as the medical paradigm influences.

### **Chapter 5**

## **CONCLUSION AND RECOMMENDATIONS**

### **5.1 Conclusion**

#### **5.1.1 Response rate**

A response rate of 64% was achieved in this study. Therefore it is asserted that the outcomes of this study are generalisable within the context that this study occurred and possibly to members of the general public in South Africa who have characteristics similar to the HPC members that participated in this study.

#### **5.1.2 Objective One**

##### **5.1.2.1 Personal Demographics**

In this study the majority of respondents were Black, with an average age of 48 years. The most prominent language spoken was English, which concurs with the fact that the majority of respondents were noted to have obtained a higher education qualification (certificate, diploma or degree) which are mostly lectured in the English language in South Africa. In this context a Bachelors degree qualification from UNISA related to the field of Health Sciences was the most common. In terms of social responsibility, the respondents had on average 3 dependents and in line with the requirements of the position they held in legislature, the majority were members of Parmed medical aid scheme, an exclusive medical aid scheme for members of parliament and legislature. Notwithstanding this the respondents who belonged to a medical aid scheme, were not certain if chiropractic treatment was covered by their medical aid. It was

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therefore expected that the members of the HPC members should have at minimum an above average knowledge and thus a good perception of the chiropractic profession, based on the fact that there are more factors that support the possibility of their exposure to the chiropractic profession as opposed to them not being exposed. However this may have been affected by utilisation of the profession as utilisation and knowledge “gaps” have also been shown to affect the perception of the profession. Additionally it must also be considered that the allopathic profession remains sceptical of chiropractic and that the respondents are principally of allopathic origin.

### **5.1.2.2 HPC demographics**

From the results it would seem that most respondents served on the Eastern Cape or Limpopo provincial HPC, with the average time served on the HPC being 48 months (i.e. 4 years). These two factors are thought to have contributed to the lack of exposure of the respondents to chiropractic information. Although there were a few respondents that subscribed and read chiropractic journals. Therefore it is no surprise that 43% majority of respondents received information regarding chiropractic from their friends, colleagues, doctors as opposed to official channels through the HPC. It was therefore expected that the members of the HPC may have an above average knowledge and thus a good perception of the chiropractic profession; but this is not necessarily conclusively so.

### **5.1.2.3 Personal interactions with chiropractors**

It was found that most of the respondents had not been treated by chiropractors and therefore did not have the benefit of exposure to the profession as those respondents who had received treatment from chiropractors.

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### **5.1.3 Objective Two**

These results seem to suggest that there are primary (stronger and overriding) and secondary (weaker and easily overridden) categories with the detractors having more primary detractor factors and the enablers having fewer or even multiple secondary enablers. Based on results of the knowledge questions, it would seem that the largest of the detractors were: Culture; Gender; Development of the HPC members within the medical paradigm and their isolation within this paradigm. This was compounded by their inability to actively practice and interact on a patient centered basis with other health care providers. Also, the unilateral programme development on diseases and the lopsided health care within the health care system acted as detractors to accessing knowledge. Furthermore the professions inability to project itself as a primary contact profession along with the over emphasis that it is perceived to be related to spinal care and spinal health further contributed as a detractor.

Thus the results indicate that the enablers to the process of accessing and gaining knowledge of chiropractic are not as strong as the detractors, thus not facilitating a process of enquiry and research into chiropractic as a profession. These results thus send a clear signal that these detractors need to be addressed to the best of the chiropractic profession's ability and those enablers that have been identified need to be utilised to enable an increase in the knowledge that the honourable members have.

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### **5.1.4 Objective Three**

It was found that the respondents had a greater degree of negative perceptions in keeping with the results of Rubens (1996), Hunter (2004), Louw (2005), Van As (2005), Kew (2006), Rattan (2007), Butt (2008), Heslop (2008), Maharaj (2008), Naidoo (2008) and Palmer (2008) in the South African context. Furthermore it has been shown that these negative perceptions seem to stem from ignorance (Objective Two), bias (Objective One, Two and Three) and to a lesser extent (Objective One) misinformation. It is therefore important that the chiropractic profession attempts to educate the general population as well as those members of the population that are given the responsibility to govern and manage health care services in South Africa such as the respondents in this study.

### **5.1.5 Objective Four**

With regards to perception and knowledge, it was found that the sample size was small and resulted in a weak correlation, nevertheless the research was able to establish that there was a correlation between the knowledge and the perception. It is therefore suggested that a qualitative analysis be undertaken in order to delve into the relationship in that there are too few respondents to make a factor analysis possible within this context. There were no correlations between the demographic factors and knowledge and perception, with the exception of individual ethnic / cultural and / or medical paradigm influences which seemed to be the principle detractors. Experience with chiropractors seemed to be a principle enabler in terms of the respondents being able to access knowledge about and form solid perceptions around the chiropractic profession.

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### **5.1.6 Summary of Objectives**

Generally knowledge and perception of chiropractic was low in this population. There were not many factors found to significantly influence these outcomes, with the exception of the paradigms that govern the operations of the respondents within the Health Professions Council with particular reference to the individual ethnic / cultural influences as well as the medical paradigm influences.

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### **5.2 Recommendations**

#### **5.2.1 Methodological recommendations with respect this study**

1. The response rate of this study was 64%. It must be noted that even though numerous attempts were made to include the Mpumalanga provincial HPC, constraints on the side of Mpumalanga legislature precluded the researcher from being able to include them in this study. A possible change in the timing of questionnaire administration for future studies may improve legislature co-operation (optimally by the avoidance of times where the HPC is concerned with pressing health issues).
2. Future research needs to be cognoscente of the fact that when working with organizations such as the HPC, the researcher needs to ensure sufficient time is set aside in order to deal with efficiency or lack thereof within these organizations.
3. The inclusion of questions such as the location of the respondent's birth place and religious affiliation could further enhance understanding of the effects of geographic location as well as cultural influence on their level of knowledge and perceptions towards chiropractic.

#### **5.2.2 Recommendations based on the outcomes of this study**

1. Chiropractic as a profession needs to establish a clear identity and effectively project this to the general public.
2. Intervention programmes to educate and increase awareness of chiropractic need to take place within HPCs of South Africa as per their request for further information. This should occur at a local, provincial and national level. Talks on chiropractic with printed information packages be delivered to HPCs. More articles should be published in research journals,

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magazines and newspapers as these seem to be a common source of information to the wide variety of the population.

3. The success of such a programme should be measured optimally through a similar means (as in this study) within a four year cycle of office, after further professional growth and such intervention has been completed to establish if any possible public relations efforts are of benefit.
4. It is important that the chiropractic profession initiates an effective and efficient line of communication and direct interaction with the HPCs of the relevant nine provinces of the Republic of South Africa in order to ensure that the chiropractic profession gains province-and nation-wide recognition, status and opportunities.
5. It must also be taken into account that the respondents may have experienced non-interest in the topic at hand and had already formulated opinions on the subject. This could have led to respondent bias. Future studies should therefore try to keep the questionnaire as succinct as possible, yet detailed enough to capture the construct under investigation. The researcher's approach has to be very structured, offering clear procedure explanations and placing emphasis on the benefits of participating in the research to streamline the questionnaire administration process as much as possible.
6. The survey should be repeated to determine the effect of individual knowledge and perception towards chiropractic on health policy / regulations.
7. The survey should be repeated to get World Health Organization (WHO) health officials' perceptions and knowledge of chiropractic. A comparative study, between South African health department officials' perception and knowledge of the chiropractic profession in South Africa, could then be performed.

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**Appendix A1**

6 July 2007

Dear Sir/Madam

**REQUEST TO MEET WITH HEALTH PORTFOLIO COMMITTEE FOR RESEARCH PURPOSES**

I hereby introduce myself as Praveena Maharaj.

I am a student studying towards my qualification in chiropractic.

As a requirement of my qualification, I have to complete a research dissertation.

The title of my dissertation is:

**“The knowledge and perception of members of the nine provincial Health Portfolio Committees and the national Health Portfolio Committee of the Republic of South Africa regarding Chiropractic”.**

I have formulated a short questionnaire to evaluate the level of knowledge and perceptions of honourable members of the health portfolio committees of the provincial legislatures and the national parliament regarding the chiropractic profession.

It would be highly appreciated if the honourable members could accommodate me at a convenient meeting and assist by kindly completing the questionnaires.

All I need from the respective health portfolio committees is a 15 minute time-slot in a scheduled meeting's agenda so that I may deliver, and then receive the completed questionnaires adopted for my research.

I respectfully request information in respect of the **date, time and venue of the next three sittings** of your health portfolio committee as I need to confirm my schedule. Upon finalizing my schedule I shall email confirmation of my attendance to you.

This will not cost the committee anything besides 15 minutes of time.

It would be highly appreciated if you could kindly accede to my request and confirm acceptance thereof in writing. Furthermore, kindly email me details of the forthcoming three meetings as soon as possible.

Please do not hesitate to contact me or my supervisor for any queries or information to collectively map out a way forward in the best interests of the health of our nation.

Your positive and expeditious response is awaited.

Thank you.

**Researcher:**

**Praveena Maharaj**

**Tel: 073 2567 399 / (031) 2623230**

**Email: praveenam@webmail.co.za**

**Fax: (031) 2624909**

**Research Supervisor:**

**Charmaine Korporaal**

**Tel: 031-2042611**

**Fax: (031) 2023632**

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***Department of Chiropractic***

P O Box 1334, DURBAN, 4000 South Africa, Tel: (031) 204 2094, Fax: (031) 202 3632

**Appendix A2**  
**LETTER OF CONFIRMATION**

Dear Sir/Madam

Thank you for your positive response dated .....

Please note that in terms of my schedule it will be convenient for me if you could kindly accommodate me in your meeting dated .....

I am eagerly looking forward to meeting the honourable members of the ..... Health Portfolio Committee regarding my research dissertation titled **“The knowledge and perceptions of provincial and national Health Portfolio Committee members of South Africa regarding the chiropractic profession.”**

Please do not hesitate to contact me or my supervisor for any queries or information.

Thank you.

**Researcher: Praveena Maharaj: 073 2567 399 or 031-3732512**  
**Research Supervisor: Charmaine Korporaal: 031-3732611**

## Appendix B1

### COVERING LETTER - QUESTIONNAIRE (HPC)

Dear Honourable Member

Welcome to my research study. Thank you for your participation.

**Title:** “The knowledge and perceptions of provincial and national Health Portfolio Committee members of South Africa regarding the chiropractic profession.”

**Name of researcher:** Praveena Maharaj: 073 2567 399 or 031-3732512

**Name of supervisor:** Charmaine Korporaal: 031-3732611

#### **Introduction:**

The purpose of my study is to determine the level of knowledge and perception of the chiropractic profession amongst honourable members of the Health Portfolio Committees (HPCs) of South Africa.

This information is important to honourable members of the HPCs as you are the only people endowed with the power to make legislative changes and who perform the regional / national oversight role to improve primary health care. As a result a sequel to this study would be to measure current perception and knowledge with the aim to improve or enhance this knowledge allowing chiropractic as a profession to gain recognition, status and opportunities both provincially and nationally. This research may also assist chiropractic professionals who are in the field in educating the public about any misconceptions they may have about chiropractic.

**Procedure:** You are requested to complete in full the accompanying questionnaire, which should take an average of **thirty minutes**. The current member of the HPC must be a South African Citizen who has been democratically nominated by their parties on a proportional representation basis at provincial and/or national level and must be a willing participant of this study with. Please note that your participation in this study is done so as an individual and not as a representative of the Health Portfolio Committee. **My research will not focus on individual cases but aims at establishing general trends and patterns.** Please note that **this is NOT a test**, there are no right or wrong answers. You are requested to **answer ALL questions with candid honesty and to the best of your ability**. You are requested to kindly refrain from communicating with other participants whilst answering the questionnaire.

Please note that most questions are in multiple-choice format. Place and “X” in the box that you think is most correct. Once you have FULLY completed all 7 sections of the survey you may then hand it to the researcher. This will not cost you anything other than thirty minutes of your time.

Please be assured that **all your personal particulars will remain anonymous** throughout the research procedure. Please do not place your name or anything (stamps etc.) that may identify you on the questionnaire.

**Benefits:** The results of this study will be published in an article in a journal and a manuscript will be available. A synopsis of the results of this study will be delivered to all members of the HPC. Your participation will help identify what the honourable members of the HPCs know about and perceive chiropractic. Your participation will help chiropractors in the field eliminate any misconceptions people may have about chiropractic and may also increase your personal awareness of details related to the chiropractic profession.

**Remuneration:** None. Participants in this study are voluntary.

#### **Persons to contact for problems or questions:**

**Researcher:** Praveena Maharaj: 073 2567 399 or 031-3732512

**Research Supervisor:** Charmaine Korporaal: 031 3732611

Your time, opinion and assistance with this project are invaluable and greatly appreciated.

## **Appendix B2**

### **FINAL QUESTIONNAIRE – HPC**

#### **Instructions:**

Dear Honourable Member

Completing this questionnaire should take approximately 15 minutes of your time.

Please note that you are completing the questionnaire as an individual and not as a representative of the Health Portfolio Committee.

Please answer ALL the questions, with candid honesty and to the best of your ability.

You are requested to answer the questionnaire without consultation with other participants.

I am looking at general trends and NOT individual cases.

Please note that questions refer to the chiropractic profession specifically in South Africa.

You will remain anonymous throughout the study. Please do not place any stamps/signatures or identifying markings on the questionnaire.

Thank you for your time.

## 1. Personal Details

1.1 Please indicate which Health Portfolio Committee (HPC) you serve on: (Please cross the relevant block)

Eastern Cape Provincial HPC	<input type="checkbox"/>	Mpumalanga Provincial HPC	<input type="checkbox"/>
Free State Provincial HPC	<input type="checkbox"/>	National HPC	<input type="checkbox"/>
Gauteng Provincial HPC	<input type="checkbox"/>	Northern Cape Provincial HPC	<input type="checkbox"/>
KwaZulu-Natal Provincial HPC	<input type="checkbox"/>	North West Provincial HPC	<input type="checkbox"/>
Limpopo Provincial HPC	<input type="checkbox"/>	Western Cape Provincial HPC	<input type="checkbox"/>

1.2 For how long have you served on the Health Portfolio Committee?

PERIOD SERVED ON HPC	DURATION OF SERVICE ON HPC	
	MONTHS	YEARS
1.		
2.		
3.		

1.3 For how long have you been involved at municipal/provincial/national level health care oversight?

\_\_\_\_\_ months \_\_\_\_\_ years

1.4 Gender: (Please cross the relevant block)

Female

☐

Male

☐

1.5 What was your age at your last birthday? \_\_\_\_\_ years

1.6 Ethnic Group: (Please cross the relevant block) (For statistical purposes only)

South African of Asian origin

☐

South African of Indian origin

☐

South African of Black origin

☐

South African of White origin

☐

South African of Coloured origin

☐

Other (please specify)

☐

\_\_\_\_\_

1.7 How many dependents do you have? \_\_\_\_\_

1.8.1 Do you have personal medical aid cover?

Yes

☐

No

☐

1.8.2 If you have answered **yes** to the previous question, please indicate which medical aid carrier you utilize:

\_\_\_\_\_

1.8.3 Is chiropractic treatment funded by your medical aid?

Yes

☐

No

☐

I do not know

☐

1.9 Language/s spoken: (Please cross the relevant block)

		Predominant First Language	Predominant Second Language	Predominant Third Language
1.	Afrikaans			
2.	English			
3.	isiNdebele			
4.	isiSwazi			
5.	isiXhosa			
6.	isiZulu			
7.	Sepedi			

8.	SeSotho			
9.	seTswana			
10.	TshiVenda			
11.	XiTsonga			
12.	Other: (Please specify)			

1.10 Whose responsibility is it to update members of the Health Portfolio Committees with respect to advances in health care research? (You may choose more than one option)

Dedicated research unit (affiliated to HPC)	
Medical research council	
Secretary	
Self	
Other (please specify): _____	
Not applicable	

1.11.1 Do you read any chiropractic journals? ☐ Yes ☐ No

1.11.2 If you have answered **yes** to the previous question, please indicate the subscriber

Self	
Through HPC	
Through other affiliations (e.g. tertiary education institutions) Please specify: _____	

1.12 In your opinion, do advances in medical technology play an important role in performing your mandate as part of the HPC?

☐ Yes ☐ No

1.13 What is / are the focus / foci of your mandate on the HPC?  
(You may choose more than one option)

Chronic diseases or communicable diseases		Primary health care	
Cost regulation within national health		Preventative health care	
Drug intervention health care		Private health care	
Education		Public health care	
Emergency health care		Quality assurance within health care	
HIV/AIDS and related health care		Rehab health care	
Issues dealing with Traditional Healers Council		Secondary level health care	
Issues dealing with Allied Health Prof Council		Statistical management of health care	
Issues dealing with Health Professions Council		Statistical monitoring of health care	
Legislative issues related to health		Tertiary level health care	
Medical Schemes Council		Other (please specify): _____	

## 2. Educational Details

2.1 What is your highest qualification achieved?

\_\_\_\_\_

2.2 Institution at which highest qualification was obtained

\_\_\_\_\_

2.3 What was the principal focus of your highest qualification?

Arts (e.g. graphic design, jewellery design)		Engineering and the built environment (e.g. mechanical engineering, surveying)	
Basic Sciences (e.g. human physiology)		Health sciences (e.g. radiography, nursing)	
Commerce (e.g. MBA, law)		Other (please specify): _____	

--	--	--

2.4 Have you achieved any other qualifications within the health care field (NOT the highest qualification obtained).  
E.g. Nursing diploma. Please list all:


### 3. Personal Experience of chiropractic treatment

			When Did Last Consult Take Place?	For What Condition Was The Last Consult?	Was The Treatment Satisfactory ?	
Have <b><u>you</u></b> consulted with a chiropractor before?	YES	NO			YES	NO
Have <b><u>your children</u></b> consulted with a chiropractor before?	YES	NO			YES	NO
Have <b><u>your family members</u></b> consulted with a chiropractor before?	YES	NO			YES	NO
Have <b><u>your friends</u></b> consulted with a chiropractor before?	YES	NO			YES	NO

3.1 If you have answered **yes** to question 3.1, would you continue to consult with a chiropractor for the same or a different condition in the future?

Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
I am undecided	<input type="checkbox"/>	Not applicable	<input type="checkbox"/>

3.6 Would you recommend chiropractic treatment to your colleagues, friends and/or family?

Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
I am undecided	<input type="checkbox"/>	Not applicable	<input type="checkbox"/>

### 4. Level of knowledge about chiropractic

4.1 Is the chiropractic profession currently legislated in South Africa?

Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
I do not know	<input type="checkbox"/>		

4.2 For how long has chiropractic been practised as a profession in South Africa, irrespective of legislature?

<10 years	<input type="checkbox"/>	>100 years	<input type="checkbox"/>
11-50 years	<input type="checkbox"/>	I do not know	<input type="checkbox"/>
51-100 years	<input type="checkbox"/>		

4.3 At which institution/s can chiropractic be studied in South Africa? (You may choose more than one option)

Durban University of Technology	<input type="checkbox"/>	University of the Free State	<input type="checkbox"/>
Stellenbosch University	<input type="checkbox"/>	University of Johannesburg	<input type="checkbox"/>
Tshwane University	<input type="checkbox"/>	University of KZN	<input type="checkbox"/>
University of Cape Town	<input type="checkbox"/>	University of Western Cape	<input type="checkbox"/>
I do not know	<input type="checkbox"/>		

4.4 What type of course do you think chiropractors follow? (Please cross the relevant block)

Weekend Course	<input type="checkbox"/>	Full-Time Course	<input type="checkbox"/>
Part-time Course	<input type="checkbox"/>	I do not know	<input type="checkbox"/>

4.5 What level of education is required to enter a chiropractic course? (You may choose more than one option)

None	<input type="checkbox"/>	Medical or paramedical education	<input type="checkbox"/>
Grade 10	<input type="checkbox"/>	Medical or paramedical propeduse (e.g. Pre-medical or B. Sc degree)	<input type="checkbox"/>
Grade 12 (without matric exemption)	<input type="checkbox"/>	I do not know	<input type="checkbox"/>
Grade 12 (with matric exemption)	<input type="checkbox"/>		

4.6 How long do you think chiropractors have to work within a clinic environment with medical supervision, in addition to time spent training?

Not at all	<input type="checkbox"/>	3 years	<input type="checkbox"/>
------------	--------------------------	---------	--------------------------

1 year


I do not know


2 years

Other

(please specify) \_\_\_\_\_

4.7 A chiropractor that qualifies from his/her studies in South Africa does so with which ONE of the following qualifications?

Bachelor's degree	<input type="checkbox"/>
Diploma	<input type="checkbox"/>
Master's degree	<input type="checkbox"/>
National Higher Diploma	<input type="checkbox"/>
PhD	<input type="checkbox"/>
Other: _____	<input type="checkbox"/>

4.8 The chiropractic course includes training in the following subjects/treatment methods:

Place an "X" in the correct box to indicate "TRUE" or "FALSE" (Please leave out any option which you are unsure of).

Anatomy	T	F
Chemistry	T	F
Diagnostics	T	F
Drug therapy	T	F
Dry needling tender (trigger/acupuncture) points	T	F
Electrotherapy (IFC, TENS)	T	F
Emergency Care	T	F
Ergonomic advice	T	F
Exercise therapy	T	F
Fracture care	T	F
Chiropody	T	F
Heat & Ice therapy	T	F
Laser therapy	T	F
Manipulation/ Adjustment	T	F
Massage therapy	T	F
Medication	T	F
Medical Microbiology	T	F
Minor surgery	T	F
Mobilization	T	F
Nutritional advice	T	F
Pathology	T	F
Pharmacology	T	F
Physics	T	F
Physiology	T	F
Physiotherapeutic modalities	T	F
Psychiatry	T	F
Psychology	T	F
Radiotherapy	T	F
Rehabilitation	T	F
Stretching	T	F
Traction	T	F
Ultrasound therapy	T	F
Ultraviolet light therapy	T	F

4.9 :Because of their training, chiropractors can focus their treatment in the following areas  
Please place an "X" in the correct box to indicate "TRUE" or "FALSE"

Acupuncture	T	F
Extremities (e.g. knee, elbow, wrist)	T	F
Neuromusculoskeletal system (nerves, muscles and bones)	T	F
Pediatrics	T	F
Radiology	T	F
Rehabilitation	T	F
Sports medicine	T	F
Surgery	T	F

4.10 Is the chiropractic profession, in South Africa, regulated by a statutory body?

Yes

☐  
☐

No

☐

I do not know

4.11 Does the chiropractic profession in South Africa have an organizational professional body?

Yes

☐  
☐

No

☐

I do not know

4.12 How many registered chiropractors do you think there are in South Africa?

0-200	<input type="checkbox"/>	801-1000	<input type="checkbox"/>
201-400	<input type="checkbox"/>	1001-1200	<input type="checkbox"/>
401-600	<input type="checkbox"/>	> 1200	<input type="checkbox"/>
601-800	<input type="checkbox"/>	I do not know	<input type="checkbox"/>

4.13 What percentage of medical aid carriers covers chiropractic treatment? (Please cross the relevant block)

0%	1-10%	11-20%	21-30%	31-40%	41-50%	51-60%	61-70%	71-80%	81-90%	91-100%
----	-------	--------	--------	--------	--------	--------	--------	--------	--------	---------

4.14 How do you get information about chiropractic? (You may choose more than one option)

From friends, colleagues, doctors etc.	<input type="checkbox"/>
From government research department	<input type="checkbox"/>
From government statistics department (e.g. HSRC)	<input type="checkbox"/>
From internet websites	<input type="checkbox"/>
From medical journals or research	<input type="checkbox"/>
From my family/friends who have been treated by a chiropractor	<input type="checkbox"/>
From being treated by a chiropractor	<input type="checkbox"/>
From reading about chiropractic in the media (e.g. magazine/newspaper/flier)	<input type="checkbox"/>
From doing my own research	<input type="checkbox"/>
From policy documents and legislation	<input type="checkbox"/>
I have not received any information about chiropractic	<input type="checkbox"/>
Other (please specify): _____	<input type="checkbox"/>

## 5. Integration of chiropractic in the primary health care system

5.1 Which health care practitioner would you consult with **FIRST** if you had a medical concern? (Please cross the relevant block)

Biokineticist	Chiropractor	GP	Homeopath	Pharmacist	Physiotherapist	Specialist	Traditional healer
---------------	--------------	----	-----------	------------	-----------------	------------	--------------------

5.2 How close is the nearest practitioner to you? Please select ONE option for each practitioner with a cross

<b>PRACTITIONER</b>	<b>0-10 km</b>	<b>10-20 km</b>	<b>20-30 km</b>	<b>30-40 km</b>	<b>40-50 km</b>	<b>&gt; 50 km</b>	<b>I do not know</b>
Biokineticist							
Chiropractor							
GP							
Homeopath							
Pharmacist							
Physiotherapist							
Specialist							
Traditional healer							

5.3 Please indicate which health care provider you would choose **FIRST** for treatment if you had each of the following conditions.

(Please cross on box per condition only)

<b>CONDITION</b>	<b>Bio-kineticist</b>	<b>Chiropractor</b>	<b>GP</b>	<b>Homeopath</b>	<b>Pharmacist</b>	<b>Physio-therapist</b>	<b>Specialist</b>	<b>Traditional Healer</b>
Allergies								
Appendicitis								
Arthritis								
Asthma								
Chronic conditions								
Chronic pain problems								
Colic in babies								
Constipation								
Diabetes Mellitus								
Sore throat								
Fractures								
Gastro-intestinal problems								
Headaches								
High Blood Pressure								
Joint/ligament sprains								
Low back pain								
Low back pain (in pregnancy)								
Muscle spasm/strain								

Neck pain								
Osteoarthritis								
Osteoporosis								
Pins and needles/ numbness in your arms or legs								
Postural Abnormalities (e.g.Scoliosis)								
Post orthopaedic surgery rehabilitation								
Shoulder pain								
Slipped disc/disc herniation								
Sports injuries								
Temporomandibular joint problems								
Viral Infections (e.g. Flu)								
Whiplash injuries								

5.4 Do chiropractors process workman's compensation claims?

Yes

No

I do not know

5.5 Please rate each of the following professions in terms of their importance in serving in the South African health care system.

Please cross a number for each profession, with: [1] indicating 'least important' role and [4] indicating the "most important" role

(Please leave out any profession/s which you are unsure of).

	<u>Least</u> <u>Important</u> <u>Role</u> ↓			<u>Most</u> <u>Important</u> <u>Role</u> ↓
Acupuncture	1	2	3	4
Ayurvedic Medicine	1	2	3	4
Chinese medicine	1	2	3	4
Chiropractic	1	2	3	4
Dentistry	1	2	3	4
Emergency care	1	2	3	4
Chiropody	1	2	3	4
Herbalism	1	2	3	4
Homeopathy	1	2	3	4
Medicine	1	2	3	4
Nursing	1	2	3	4
Optometry	1	2	3	4
Pharmacy	1	2	3	4
Physiotherapy	1	2	3	4
Traditional healing	1	2	3	4

5.6 To what extent is chiropractic accepted by the medical profession and the public of South Africa? (Please cross one box only)

Great extent	
Moderate extent	
Slight extent	
No active role	

5.7 In which sector would you say chiropractic plays a more significant role?

Public sector	
Private sector	

5.8 How many practicing chiropractors are you acquainted with?

None		3 to 5	
1		6 to 10	
2		>10	

5.9 Have you encountered any promotional material related to chiropractic?

Yes	
No	

If yes, please elaborate on what promotional material you have encountered: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## 6. The scope of practice of chiropractic

6.1 To what extent do you believe chiropractors to be competent in neuromusculoskeletal (nerves, muscles & bones) examination and diagnosis? (Please cross one box only)

Very competent	
Moderately competent	
Slightly competent	
Incompetent	
Very incompetent	
Unable to comment	

6.2 To what extent do you believe chiropractors to be competent in general medical management of patients? (Definition of 'general medical management' is "the ability to diagnose, treat, rehabilitate and refer the patient for optimum patient benefit")

Very competent	
Moderately competent	
Slightly competent	
Incompetent	
Very incompetent	
Unable to comment	

Do you think it is useful for patients to consult with chiropractors for preventative or maintenance care on a regular basis?

Yes	
No	

What kind of procedures would you expect a chiropractor to be able to perform, when necessary, in his/her assessment of a patient? (You may choose more than one option)

Administration of drugs by injection	
Auscultation	
Cardiovascular review	
Drawing of blood through syringes for blood tests	
Family history	
Genito-urinary review	
Musculoskeletal Assessment including palpation	
<u>Neurological exam:</u>	central nervous system review
	cranial nerve review
	peripheral nervous system review
Orthopedic exam	
Past medical history	
Prescribe scheduled medication	
Radiological exam	
Respiratory review	
Social history	
Vital signs (heart rate, blood pressure, respiration)	

## 7. Perception of the chiropractic profession

7.1 Please rate each of the following statements reflecting your perception of the chiropractic profession.

Please cross a number for each statement, with: [1] indicating "strongly disagree" and [4] indicating "strongly agree"

	Strongly Disagree ↓				Strongly Agree ↓
I have never heard of chiropractic before; I do not know what it is	1	2	3	4	
I have heard of it before but I do not know much about it	1	2	3	4	
Chiropractic does more harm than good	1	2	3	4	
It is a very effective treatment for muscle, joint and nerve conditions	1	2	3	4	
I am uncomfortable with chiropractic	1	2	3	4	
I think it has a valuable role in the health care system	1	2	3	4	
It may be effective for some patients	1	2	3	4	
I prefer chiropractic treatment over most other physical therapies	1	2	3	4	
I am not informed enough to comment	1	2	3	4	
Medicine	1	2	3	4	
Nursing	1	2	3	4	
Optometry	1	2	3	4	
Pharmacy	1	2	3	4	
Physiotherapy	1	2	3	4	
Traditional healing	1	2	3	4	

7.2 Which one of the following best reflects your view of chiropractic treatment? (Please tick one box only)

Chiropractic provides excellent treatment for some neuro-musculo-skeletal conditions.	
I am uncomfortable with chiropractic but it is effective for some patients	
Not informed enough to comment.	
Chiropractic is quackery and does more harm than good.	

7.3 Do you agree with the following views about the chiropractic profession? Please place an "X" in the correct box to indicate "YES" or "NO". Chiropractic /is:

accessible to everybody	Y	N
a competitive profession to physiotherapy	Y	N
a complementary profession to physiotherapy	Y	N
a drug intervention health care service	Y	N
a preventative health care service	Y	N
a primary health care service	Y	N
a rehabilitative health care service	Y	N
a secondary health care service	Y	N
a tertiary health care service	Y	N
a scientific alternative health care profession (registered with the Allied Health Professions Council of South Africa)	Y	N
an emergency health care service	Y	N
cost effective	Y	N
lacking scientific background	Y	N
I have no opinion/I do not know enough about it	Y	N
not needed in South Africa	Y	N
should be accessible to everybody	Y	N
should be part of an additional medical aid package	Y	N
should be covered by standard Medical aid	Y	N
should be recognized by law	Y	N
should not be covered by Medical Aid	Y	N

7.4 Do you feel adequately informed about chiropractic?

Yes

☐

No

☐

Please elaborate

.....  
.....

7.5.1 Would you like to know more about the chiropractic profession?

Yes

☐

No

☐

7.5.2 How would you like to be informed about chiropractic?

by an informative lecture/seminar	<input type="checkbox"/>
by meeting with relevant associations/organizations	<input type="checkbox"/>
by personal contact	<input type="checkbox"/>
by printed information packages	<input type="checkbox"/>
by research publications	<input type="checkbox"/>
by the media/press	<input type="checkbox"/>
other (please specify):	<input type="checkbox"/>

**Thank you very much for your time! The results will be treated confidentially**

## **Appendix C1**

### **LETTER OF INFORMATION – FOCUS GROUP**

Dear Participant

I would like to welcome you into the focus group of my study.

**The title of my research project is:**

“The knowledge and perceptions of provincial and national Health Portfolio Committee members of South Africa regarding the chiropractic profession.”

**Background to the study:**

Chiropractic is a health profession specializing in the diagnosis, treatment and prevention of mechanical disorders of the musculoskeletal system and the affects of these disorders on the function of the nervous system and general health. Chiropractic practitioners essentially rely upon non-invasive treatment methods and will refer patients to various other medical practitioners should medication or surgery be indicated. This approach is further reinforced by chiropractors in their promotion of healthy lifestyles such as the avoidance of smoking and excess stress, proper diet and exercise.

Chiropractors are primary contact health physicians who are able to diagnose and treat patients for a range of conditions, but still a lot of confusion exists in society about what chiropractic really entails. The purpose of my study is to determine the level of knowledge and perception of the chiropractic profession amongst honourable members of the Health Portfolio Committees (HPCs) of South Africa.

This information is important to members of the HPCs as they are the only people endowed with the power to make legislative changes and who perform the regional / national oversight role to improve primary health care. As a result a sequel to this study would be to measure current perception and knowledge with the aim to improve or enhance this knowledge allowing chiropractic as a profession to gain recognition, status and opportunities both provincially and nationally. This research may also assist chiropractic professionals in the field in educating their patients about any misconceptions they may have about chiropractic.

**Objective of the study:**

The data obtained by means of this questionnaire will allow for further assessment of the role of chiropractic in the South African health care system. The questions are concerned with your knowledge and perception of the chiropractic profession, the integration and role of chiropractic in the South African health care system, as well as the scope of practice of chiropractors in South Africa.

Your participation in this study is much appreciated and you are assured your comments and contributions to the discussion will be kept confidential throughout. The results of the discussion will only be used for research purposes.

**Procedure:**

Before commencing the focus group discussion, kindly read and sign the Informed Consent Form, Confidentiality Statement and Code of Conduct Statement. Each member will then receive a copy of the questionnaire, after which each of the questions will be discussed in sequential order. Please recommend any suggestions that you may have regarding the questions in order to limit any misinterpretation by the respondents (members of the HPCs). You are requested to comment on how the questionnaire should be modified in order to enhance the understanding of the questions to accurately assess the HPC members' perception and knowledge of chiropractic. If inconsistencies are found or changes proposed, a unanimous vote is required to institute change to the questionnaire.

If you have any further questions please feel free to contact either my supervisor or myself.

**Supervisor: Dr. Charmaine Korpelaar: 031 3732611**

**Researcher: Praveena Maharaj: 073 2567 399 or 031-3732512**

Your time, opinion and assistance with this project are invaluable and greatly appreciated.

Praveena Maharaj

## Appendix C2

### INFORMED CONSENT FORM – FOCUS GROUP

DATE: 7 February 2007

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#### TITLE OF RESEARCH PROJECT:

“The knowledge and perceptions of provincial and national Health Portfolio Committee members of South Africa regarding the chiropractic profession.”

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NAME OF SUPERVISOR: Dr. Charmaine Korporaal: 031 3732611

---

NAME OF RESEARCHER: Praveena Maharaj: 073 2567 399 or 031-3732512

---

Please circle the appropriate answer:

- |    |  |     |    |
|----|--|-----|----|
| 1. | Have you read the research information sheet?  | Yes | No |
| 2. | Have you had an opportunity to ask questions regarding this study?   | Yes | No |
| 3. | Have you received satisfactory answers to your questions?  | Yes | No |
| 4. | Have you had an opportunity to discuss this study?   | Yes | No |
| 5. | Have you received enough information about this study?   | Yes | No |
| 6. | Do you understand the implications of your involvement in this study?  | Yes | No |
| 7. | Do you understand that you are free to   |     |    |
|    | a) withdraw from this study at any time?   | Yes | No |
|    | b) withdraw from this study at any time, without reasons given?  | Yes | No |
|    | c) withdraw from this study at any time without affecting your future health care or relationship with the Chiropractic day clinic at the Durban University of Technology? | Yes | No |
| 8. | Do you agree to voluntarily participate in this study?   | Yes | No |
| 9. | Who have you spoken to regarding this study?   |     |    |
- 

If you have answered **NO** to any of the above, please obtain the necessary information from the researcher and/or supervisor before signing. Thank you.

#### **Please print in block letters:**

Focus Group Member: \_\_\_\_\_ Signature: \_\_\_\_\_

Witness Name: \_\_\_\_\_ Signature: \_\_\_\_\_

Researcher's Name: \_\_\_\_\_ Signature: \_\_\_\_\_

Supervisor's Name: \_\_\_\_\_ Signature: \_\_\_\_\_

## **Appendix C3**

### **CONFIDENTIALITY STATEMENT – FOCUS GROUP**

#### **IMPORTANT NOTICE:**

**THIS FORM IS TO BE READ AND FILLED IN BY EVERY MEMBER PARTICIPATING IN THE FOCUS GROUP, BEFORE THE FOCUS GROUP MEETING CONVENES.**

#### **DECLARATION**

1. All information contained in the research documents and any information discussed during the focus group meeting will be kept private and confidential. This is especially binding to any information that may identify any of the participants in the research process.
2. The returned questionnaires will be coded and kept anonymous in the research process.
3. None of the information shall be communicated to any other individual or organization outside of this specific focus group as to the decisions of this focus group.
4. The information from this focus group will be made public in terms of a journal publication, which will in no way identify any participants of this research.

Once this form has been read and agreed to, please fill in the appropriate information below and sign to acknowledge agreement.

#### **Please print in block letters:**

Focus Group Member: \_\_\_\_\_ Signature: \_\_\_\_\_

Witness Name: \_\_\_\_\_ Signature: \_\_\_\_\_

Researcher's Name: \_\_\_\_\_ Signature: \_\_\_\_\_

Supervisor's Name: \_\_\_\_\_ Signature: \_\_\_\_\_

## **Appendix C4**

### **CODE OF CONDUCT – FOCUS GROUP**

#### **IMPORTANT NOTICE:**

**THIS FORM IS TO BE READ AND FILLED IN BY EVERY MEMBER PARTICIPATING IN THE FOCUS GROUP, BEFORE THE FOCUS GROUP MEETING CONVENES.**

As a member of this committee, I agree to abide by the following conditions:

1. All information contained in the research documents and any information discussed during the focus group meeting will be kept private and confidential. This is especially binding to any information that may identify any of the participants in the research process.
2. None of the information shall be communicated to any other individual or organization outside of this specific focus group as to the decisions of this focus group.
3. The information from this focus group will be made public in terms of a journal publication, which will in no way identify any participants of this research.

No.	Member represents	Member's Name	Signature	Contact details
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

## **Appendix C5**

### **QUESTIONNAIRE - PRE FOCUS GROUP**

#### **Instructions:**

Dear Honourable Member

Answering this questionnaire should not take more than 15 minutes of your time to complete.

Please answer ALL the questions, with candid honesty and to the best of your ability.

This is NOT a test. There is NO right or wrong answers.

I am looking at general trends and NOT individual cases.

Please note that questions refer to the chiropractic profession specifically in South Africa.

You will remain anonymous throughout.

Thank you for your time!

## 1. Personal Details

1.1 Please indicate which Health Portfolio Committee (HPC) you serve on: (Please cross the relevant block)

Eastern Cape Provincial HPC  
Free State Provincial HPC  
Gauteng Provincial HPC  
KwaZulu-Natal Provincial HPC  
Limpopo Provincial HPC

☐  
☐  
☐  
☐  
☐

Mpumalanga Provincial HPC  
National HPC  
Northern Cape Provincial HPC  
North West Provincial HPC  
Western Cape Provincial HPC

☐  
☐  
☐  
☐  
☐

1.2 For how long have you been a member of the Health Portfolio Committee? \_\_\_\_\_ months  
\_\_\_\_\_ years

1.3 For how long have you been involved at national/provincial level health care administration? \_\_\_\_\_ months  
\_\_\_\_\_ years

1.4 Gender: (Please cross the relevant block)

Female

☐

Male

☐

1.5 What was your age at your last birthday? \_\_\_\_\_ years

1.6 Ethnic Group: (Please cross the relevant block)

Asian  
Black  
Coloured

☐  
☐  
☐

Indian  
White  
Other (specify)

☐  
☐  
☐

1.7 Marital Status: (Please cross the relevant block)

Co-habitation  
Divorced  
Married  
Other(specify)

☐  
☐  
☐  
☐

Single  
Widowed

☐  
☐

1.8 How many dependents do you have? \_\_\_\_\_

1.9.1 Do you have personal medical aid cover?

Yes

☐

No

☐

1.9.2 If you have answered yes to the previous question, please indicate which medical aid carrier you utilize:

---

---

---

1.9.3 Is chiropractic treatment funded by your medical aid?

Yes

☐  
☐

No

☐

I do not know

1.10 Language/s spoken: (Please cross the relevant block)

		Predominant First Language	Predominant Second Language	Predominant Third Language
13	Afrikaans			
14	English			
15	isiNdebele			
16	isiSwazi			
17	isiXhosa			
18	isiZulu			
19	Sepedi			
20	SeSotho			

21	seTswana		
22	TshiVenda		
23	XiTsonga		
24	Other: (Please specify):		

1.11 Whose responsibility is it to update members of the health portfolio committees with respect to advances in health care research? (You may choose more than one option)

Dedicated research unit (affiliated to HPC)	
Medical research council	
Secretary	
Self	
Other (please specify) _____	
Not applicable	

Do members subscribe to online medical/health care journals? ☐ Yes ☐ No  
If you have answered yes to the previous question, please indicate the subscriber

Self	
Through HPC	
Through other affiliations (e.g. tertiary education institutions) Please specify _____	

1.13 In your opinion, do advances in medical technology play an important role in performing your mandate as part of the HPC? ☐ Yes ☐ No

1.14 What is the focus/foci of your mandate on the HPC?  
(You may choose more than one option)

Chronic diseases or communicable diseases	<input type="checkbox"/>	Primary health care	<input type="checkbox"/>
Cost regulation within national health	<input type="checkbox"/>	Preventative health care	<input type="checkbox"/>
Drug intervention health care	<input type="checkbox"/>	Private health care	<input type="checkbox"/>
Education	<input type="checkbox"/>	Public health care	<input type="checkbox"/>
Emergency health care	<input type="checkbox"/>	Quality assurance within health care	<input type="checkbox"/>
Issues dealing with Traditional Healers Council	<input type="checkbox"/>	Rehab health care	<input type="checkbox"/>
Issues dealing with Allied Health Prof Council	<input type="checkbox"/>	Secondary level health care	<input type="checkbox"/>
Issues dealing with Health Professions Council	<input type="checkbox"/>	Statistical management of health care	<input type="checkbox"/>
Legislative issues related to health	<input type="checkbox"/>	Statistical monitoring of health care	<input type="checkbox"/>
Medical Schemes Council	<input type="checkbox"/>	Tertiary level health care	<input type="checkbox"/>
Other (please specify) _____			

## 2. Educational Details

2.1 What is your highest qualification achieved?

\_\_\_\_\_

2.2 Institution at which highest qualification was obtained

\_\_\_\_\_

2.3 What was the principle focus of your highest qualification?

Health sciences	<input type="checkbox"/>	Arts	<input type="checkbox"/>
Engineering and the built environment	<input type="checkbox"/>	Commerce	<input type="checkbox"/>

2.5 Have you achieved any other qualifications within the health care field (NOT the highest qualification obtained) e.g. Nursing diploma. Please list all.

### 3. Level of knowledge about chiropractic

3.1 How do you get information about chiropractic?  
(You may choose more than one option)

From friends, colleagues, doctors etc.

From government research department

From government statistics department (e.g. HSRC)

From internet websites

From medical journals or research

From my family/friends who have been treated by a chiropractor

I have been treated by a chiropractor

I have read about chiropractic in the media (e.g. magazine/newspaper/flier)

Through my own research

Other (please specify) \_\_\_\_\_


3.2 Is the chiropractic profession currently legislated in South Africa?

Yes


No

--

I do not know

3.3 For how long do you think has chiropractic been practiced as a profession in South Africa, irrespective of legislature?

<10 years


>100 years


11-50 years

I do not know

51-100 years

3.4 At which institution/s can Chiropractic be studied in South Africa ?

Durban University of Technology


University of the Free State


Stellenbosch University

University of Johannesburg

Tshwane University

University of KZN

University of Cape Town

University of Western Cape

3.5 What type of course do you think chiropractors follow?

Weekend Course


Full-Time Course


Part-time Course

I do not know

3.6 What level of education is required to enter a chiropractic course?

None


Medical or paramedical education


Grade 10

Medical or paramedical propedeuse

Grade 12 (without matric exemption)

I do not know

Grade 12 (with matric exemption)

☐

3.7 How long do you think chiropractors have to work under clinical supervision, in addition to time spent training?

Not at all

☐

3 years

☐

1 year

☐

I do not know

☐

2 years

☐

Other

☐

3.8 A chiropractor that qualifies from his/her studies in South Africa does so with which ONE of the following qualifications?

Bachelor's degree

☐

Diploma

☐

Master's degree

☐

National Higher Diploma

☐

PhD

☐

Other: \_\_\_\_\_

☐

3.9 The chiropractic course includes training in the following subjects/treatment methods:  
Place an "X" in the correct box to indicate "TRUE" or "FALSE".

Anatomy

☐☐

Chemistry

☐☐

Diagnostics

☐☐

Drug therapy

☐☐

Dry needling tender (trigger/acupuncture) points

☐☐

Electrotherapy (IFC, TENS)

☐☐

Emergency Care

☐☐

Ergonomic advice

☐☐

Exercise therapy

☐☐

Fracture care

☐☐

Chiropractic

☐☐

Heat & Ice therapy

☐☐

Laser therapy

☐☐

Manipulation/ Adjustment

☐☐

Massage therapy

☐☐

Medication

☐☐

Medical Microbiology

☐☐

Minor surgery

☐☐

Mobilization

☐☐

Nutritional advice

☐☐

Pathology

☐☐

Pharmacology

☐☐

Physics

☐☐

Physiology

☐☐

Physiotherapeutic modalities

☐☐

Psychiatry

☐☐

Psychology  
Radiotherapy  
Rehabilitation  
Stretching  
Traction  
Ultrasound therapy  
Ultraviolet light therapy

T
T
T
T
T
T
T

F
F
F
F
F
F
F

3.10 Chiropractors can specialize in the following areas in South Africa? Please place an "X" in the correct box to indicate "TRUE" or "F

Extremities (e.g. Knee, elbow, wrist)  
Neuromusculoskeletal system (nerves, muscles and bones)  
Pediatrics  
Radiology  
Rehabilitation  
Sports medicine  
Surgery

T
T
T
T
T
T
T

F
F
F
F
F
F
F

3.11 Is the chiropractic profession, in South Africa, regulated by a statutory body?

Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
I do not know	<input type="checkbox"/>		

3.12 Does the Chiropractic profession in South Africa have an organizational professional body?

Yes

☐  
☐

No

☐

I do not know

3.13 How many registered chiropractors do you think there are in South Africa?

0-50

☐  
☐  
☐  
☐

151-250

☐  
☐  
☐

51-100

251-500

101-150

>500

I do not know

#### 4. Integration of chiropractic in the primary health care system

4.1 How close is the nearest practitioner to you? Please select ONE option for each practitioner with a cross.

PRACTITIONER	0-2 km	2-4 km	4-6 km	6-8 km	> 8 km
Biokineticist					
Chiropractor					
GP					
Homeopath					
Pharmacist					
Physiotherapist					
Traditional healer					

- 4.3 Please rate each of the following professions in terms of their importance in serving in the South African health care system. Please cross a number for each profession, with: [1] indicating 'least important' role and [5] indicating the "most important" role (Please leave out any profession/s which you are unsure of)

Acupuncture	<b>Least</b>	1	2	3	4	5	<b>Most</b>
Ayurvedic Medicine	<b>Important</b>	1	2	3	4	5	<b>Important</b>
Chinese medicine	<b>Role</b>	1	2	3	4	5	<b>Role</b>
Chiropractic		1	2	3	4	5	
Dentistry		1	2	3	4	5	
Emergency care		1	2	3	4	5	
Chiropody		1	2	3	4	5	
Herbalism		1	2	3	4	5	
Homeopathy		1	2	3	4	5	
Medicine		1	2	3	4	5	
Nursing		1	2	3	4	5	
Optometry		1	2	3	4	5	
Pharmacy	<b>Least</b>	1	2	3	4	5	<b>Most</b>
Physiotherapy	<b>Important</b>	1	2	3	4	5	<b>Important</b>
Traditional healing	<b>Role</b>	1	2	3	4	5	<b>Role</b>

4.4 To what extent is chiropractic integrated into the South African health care system?

(Please cross one box only)

Great extent

Moderate extent

Slight extent

No active role

4.5 In which sector would you say chiropractic plays a more significant role?

Public sector

Private sector


4.6 How many practicing chiropractors do you think there are in your area?

None

1

2

I do not know


3 to 5

6 to 10

>10


4.7 How many practicing chiropractors are you acquainted with in your area?

None

1

2

I do not know


3 to 5

6 to 10

>10


4.8 Have you encountered any promotional material related to chiropractic?

☐

Yes

☐

No

Yes

No


## 5. The scope of practice of chiropractic

5.1 To what extent do you believe chiropractors to be competent and reliable in neuromusculoskeletal (nerves, muscles & bones) examination and diagnosis? (Please cross one box only)

Very competent

Moderately competent

Slightly competent

Incompetent

Very incompetent

Unable to comment

5.2 To what extent do you believe chiropractors to be competent and reliable in general medical management of patients? (Definition of 'general medical management' is "the ability to diagnose, treat and refer the patient for optimum patient benefit").

Very competent

Moderately competent

Slightly competent

Incompetent

Very incompetent

Unable to comment

5.3 Do you think it is useful for patients to consult with chiropractors on a regular basis?

Yes


No

5.4 What kind of procedures would you expect a chiropractor to perform in his/her assessment of a patient?  
(you may choose more than one option)

Auscultation

Cardiovascular review

Family history

Gastro-intestinal review/abdominal exam

Genito-urinary review

Neurological exam:

- central nervous system review
- cranial nerve review
- peripheral nervous system review

Orthopedic exam

Past medical history

Radiological exam

Respiratory review

Social history

Vital signs (heart rate, blood pressure, respiration)

## 6. Perception of the Chiropractic Profession

6.1 Which one of the following statements best reflects your perception of the chiropractic profession? (Please cross one box only)

- I have never heard of Chiropractic before; I do not know what it is
- I have heard of it before, but I am not informed enough to comment
- Chiropractic does more harm than good
- It is a very effective treatment for muscle, joint and nerve conditions
- I am uncomfortable with it
- I think it has a valuable role in the health care system
- It may be effective for some patients
- I prefer Chiropractic over most other physical therapies


6.2 Which one of the following best reflects your view of chiropractic treatment? (Please tick one box only)

- I am uncomfortable with it but it is effective for some patients
- Chiropractic provides excellent treatment for some neuro-musculo-skeletal conditions.
- Chiropractic is quackery and does more harm than good.
- Not informed enough to comment.


6.3 How do you view the chiropractic profession (you may choose more than one option)? I think chiropractic (is):

- a competitive profession to physiotherapy
- a complementary profession to physiotherapy
- a drug intervention health care service
- a preventative health care service
- a primary health care service
- a rehabilitative health care service
- a secondary health care service
- a tertiary health care service
- an alternative health care profession
- an emergency health care service
- cheap
- is accessible to everybody
- just the right cost
- lacking scientific background
- no opinion/do not know enough about it
- not needed in South Africa
- should be accessible to everybody
- should be part of an additional package
- should be part of the standard Medical aid
- should be recognized by law
- should not be part of Medical Aid
- should not be recognised by law
- suitable for extra mural care
- suitable for intramural care
- too expensive


6.4 Do you feel adequately informed about chiropractic?

Yes


No

Please elaborate

.....

.....

6.5.1 Would you like to know more about the chiropractic profession?

Yes


No

6.5.2 If you answered **yes** to the previous question, what would you like to know about chiropractic in order to gain a better understanding of the chiropractic profession?

.....

.....

.....

6.5.3 How would you like to be informed about chiropractic?

- by an informative lecture/seminar
- by personal contact by local chiropractor
- by printed information packages
- by research publications
- by the media/press


other (please specify) \_\_\_\_\_  
\_\_\_\_\_

☐

**Thank you very much for your time! The results will be treated confidentially**

## **Appendix D1**

### **QUESTIONNAIRE – POST FOCUS GROUP/ PRE PILOT STUDY**

#### **Instructions:**

Dear Honourable Member

Completing this questionnaire should take approximately 15 minutes of your time.

Please answer ALL the questions, with candid honesty and to the best of your ability.

This is NOT a test. There are NO right or wrong answers.

I am looking at general trends and NOT individual cases.

Please note that questions refer to the chiropractic profession specifically in South Africa.

You will remain anonymous throughout.

Thank you for your time!

## 1. Personal Details

1.1 Please indicate which Health Portfolio Committee (HPC) you serve on: (Please cross the relevant block)

Eastern Cape Provincial HPC	<input type="checkbox"/>	Mpumalanga Provincial HPC	<input type="checkbox"/>
Free State Provincial HPC	<input type="checkbox"/>	National HPC	<input type="checkbox"/>
Gauteng Provincial HPC	<input type="checkbox"/>	Northern Cape Provincial HPC	<input type="checkbox"/>
KwaZulu-Natal Provincial HPC	<input type="checkbox"/>	North West Provincial HPC	<input type="checkbox"/>
Limpopo Provincial HPC	<input type="checkbox"/>	Western Cape Provincial HPC	<input type="checkbox"/>

1.2 For how long have you served on the Health Portfolio Committee?

PERIOD SERVED ON HPC	DURATION OF SERVICE ON HPC	
	MONTHS	YEARS
1.		
2.		
3.		

1.3 For how long have you been involved at municipal/provincial/national level health care oversight?  
 \_\_\_\_\_ months \_\_\_\_\_ years

1.4 Gender: (Please cross the relevant block)

Female	<input type="checkbox"/>	Male	<input type="checkbox"/>
--------	--------------------------	------	--------------------------

1.5 What was your age at your last birthday? \_\_\_\_\_ years

1.6 Ethnic Group: (Please cross the relevant block) (For statistical purposes only)

South African of Asian origin	<input type="checkbox"/>	South African of Indian origin	<input type="checkbox"/>
South African of Black origin	<input type="checkbox"/>	South African of White origin	<input type="checkbox"/>
South African of Coloured origin	<input type="checkbox"/>	Other (please specify)	<input type="checkbox"/>

1.7 How many dependents do you have? \_\_\_\_\_

1.8.1 Do you have personal medical aid cover?

Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
-----	--------------------------	----	--------------------------

1.8.2 If you have answered **yes** to the previous question, please indicate which medical aid carrier you utilize:

\_\_\_\_\_

1.8.3 Is chiropractic treatment funded by your medical aid?

Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
I do not know	<input type="checkbox"/>		

1.9 Language/s spoken: (Please cross the relevant block)

		Predominant First Language	Predominant Second Language	Predominant Third Language
25.	Afrikaans			
26.	English			
27.	isiNdebele			
28.	isiSwazi			
29.	isiXhosa			
30.	isiZulu			
31.	Sepedi			
32.	SeSotho			
33.	seTswana			
34.	TshiVenda			
35.	XiTsonga			
36.	Other: (Please specify)			

1.10 Whose responsibility is it to update members of the health portfolio committees with respect to advances in health care research? (You may choose more than one option)

Dedicated research unit (affiliated to HPC)

Medical research council

Secretary

Self

Other (please specify) \_\_\_\_\_

Not applicable


1.11.1 Do you read any chiropractic journals? ☐ Yes ☐ No

1.13.2 If you have answered **yes** to the previous question, please indicate the subscriber

Self

Through HPC

Through other affiliations (e.g. tertiary education institutions) Please specify \_\_\_\_\_


1.14 In your opinion, do advances in medical technology play an important role in performing your mandate as part of the HPC? ☐ Yes ☐ No

1.15 What is / are the focus / foci of your mandate on the HPC?  
(You may choose more than one option)

Chronic diseases or communicable diseases

Cost regulation within national health

Drug intervention health care

Education

Emergency health care

HIV/AIDS and related health care

Issues dealing with Traditional Healers Council

Issues dealing with Allied Health Prof Council

Issues dealing with Health Professions Council

Legislative issues related to health

Medical Schemes Council


Primary health care

Preventative health care

Private health care

Public health care

Quality assurance within health care

Rehab health care

Secondary level health care

Statistical management of health care

Statistical monitoring of health care

Tertiary level health care

Other (please specify)


\_\_\_\_\_

## 2. Educational Details

2.1 What is your highest qualification achieved?

---

2.2 Institution at which highest qualification was obtained

---

2.3 What was the principal focus of your highest qualification?

Arts  
(e.g. graphic design, jewellery design)  
Basic Sciences  
(e.g. human physiology)  
Commerce  
(e.g. MBA, law)


Engineering and the built environment  
(e.g. mechanical engineering, surveying)  
Health sciences  
(e.g. radiography, nursing)  
Other  
(please specify) \_\_\_\_\_


2.6 Have you achieved any other qualifications within the health care field (NOT the highest qualification obtained).  
E.g. Nursing diploma. Please list all:

---

---

---

## 3. Personal Experience of chiropractic treatment

			WHEN DID LAST CONSULT TAKE PLACE?	FOR WHAT CONDITION WAS THE LAST CONSULT?	WAS THE TREATMENT SATISFACTORY ?	
3.2 Have <b><u>you</u></b> consulted with a chiropractor before?	YES	NO			YES	NO
3.3 Have <b><u>your children</u></b> consulted with a chiropractor before?	YES	NO			YES	NO
3.4 Have <b><u>your family members</u></b> consulted with a chiropractor before?	YES	NO			YES	NO
3.5 Have <b><u>your friends</u></b> consulted with a chiropractor before?	YES	NO			YES	NO

3.6 If you have answered **yes** to question 3.1, would you continue to consult with a chiropractor for the same or a  
different condition in  
the future?

Yes

I am undecided


No

Not applicable


3.6 Would you recommend chiropractic treatment to your colleagues, friends and/or family?

Yes


No

Not applicable


I am undecided

#### 4. Level of knowledge about chiropractic

4.1 Is the chiropractic profession currently legislated in South Africa?

Yes


No

--

I do not know

4.2 For how long has chiropractic been practised as a profession in South Africa, irrespective of legislature?

<10 years


>100 years


11-50 years

I do not know

51-100 years

4.3 At which institution/s can chiropractic be studied in South Africa? (You may choose more than one option)

Durban University of Technology


University of the Free State


Stellenbosch University

University of Johannesburg

Tshwane University

University of KZN

University of Cape Town

University of Western Cape

4.4 What type of course do you think chiropractors follow? (Please cross the relevant block)

Weekend Course


Full-Time Course


Part-time Course

I do not know

4.5 What level of education is required to enter a chiropractic course? (Please cross the relevant block)

None


Medical or paramedical education


Grade 10

Medical or paramedical propedeuse  
(Pre-medical or B. Sc degree)

Grade 12 (without matric exemption)

I do not know

Grade 12 (with matric exemption)

4.6 How long do you think chiropractors have to work within a clinic environment with medical supervision, in addition to time spent training?

Not at all


3 years


1 year

I do not know

2 years

Other (please specify)

4.7 A chiropractor that qualifies from his/her studies in South Africa does so with which ONE of the following qualifications?

Bachelor's degree


Diploma

Master's degree

National Higher Diploma

PhD

Other: \_\_\_\_\_

4.8 The chiropractic course includes training in the following subjects/treatment methods:

Place an "X" in the correct box to indicate "TRUE" or "FALSE" (Please leave out any option which you are unsure of).

Anatomy

T
T

F
F

Chemistry

Diagnostics	T	F
Drug therapy	T	F
Dry needling tender (trigger/acupuncture) points	T	F
Electrotherapy (IFC, TENS)	T	F
Emergency Care	T	F
Ergonomic advice	T	F
Exercise therapy	T	F
Fracture care	T	F
Chiropody	T	F
Heat & Ice therapy	T	F
Laser therapy	T	F
Manipulation/ Adjustment	T	F
Massage therapy	T	F
Medication	T	F
Medical Microbiology	T	F
Minor surgery	T	F
Mobilization	T	F
Nutritional advice	T	F
Pathology	T	F
Pharmacology	T	F
Physics	T	F
Physiology	T	F
Physiotherapeutic modalities	T	F
Psychiatry	T	F
Psychology	T	F
Radiotherapy	T	F
Rehabilitation	T	F
Stretching	T	F
Traction	T	F
Ultrasound therapy	T	F
Ultraviolet light therapy	T	F

4.9 Because of their training, chiropractors can focus their treatment in the following areas:  
Please place an "X" in the correct box to indicate "TRUE" or "FALSE".

Acupuncture	T	F
Extremities (e.g. knee, elbow, wrist)	T	F
Neuromusculoskeletal system (nerves, muscles and bones)	T	F
Pediatrics	T	F
Radiology	T	F
Rehabilitation	T	F
Sports medicine	T	F
Surgery	T	F

4.10 Is the chiropractic profession, in South Africa, regulated by a statutory body?

Yes


No

--

I do not know

4.11 Does the chiropractic profession in South Africa have an organizational professional body?

Yes

☐  
☐

No

☐

I do not know

4.12 How many registered chiropractors do you think there are in South Africa?

0-200

☐  
☐  
☐  
☐

201-400

401-600

601-800

801-1000

1001-1200

> 1200

I do not know

☐  
☐  
☐  
☐

4.13 What percentage of medical aid carriers covers chiropractic treatment? (Please cross the relevant block)

0%	1-10%	11-20%	21-30%	31-40%	41-50%	51-60%	61-70%	71-80%	81-90%	91-100%
----	-------	--------	--------	--------	--------	--------	--------	--------	--------	---------

4.14 How do you get information about chiropractic? (You may choose more than one option)

From friends, colleagues, doctors etc.

From government research department

From government statistics department (e.g. HSRC)

From internet websites

From medical journals or research

From my family/friends who have been treated by a chiropractor

From being treated by a chiropractor

From reading about chiropractic in the media (e.g. magazine/newspaper/flier)

From doing my own research

From policy documents and legislation

I have not received any information about chiropractic

Other (please specify) \_\_\_\_\_

☐  
☐  
☐  
☐  
☐  
☐  
☐  
☐  
☐  
☐

## 5. Integration of chiropractic in the primary health care system

5.1 Which health care practitioner would you consult with **FIRST** if you had a medical concern? (Please cross the relevant block)

Biokineticist	Chiropractor	GP	Homeopath	Pharmacist	Physiotherapist	Specialist	Traditional healer
---------------	--------------	----	-----------	------------	-----------------	------------	--------------------

5.2 How close is the nearest practitioner to you? Please select ONE option for each practitioner with a cross.

<b>PRACTITIONER</b>	<b>0-10 km</b>	10-20 km	20-30 km	30-40 km	40-50 km	> 50 km	I do not know
Biokineticist							
Chiropractor							
GP							
Homeopath							
Pharmacist							
Physiotherapist							
Specialist							

Traditional healer								
<b>CONDITION</b>	<b>Bio-kineticist</b>	<b>Chiro-practor</b>	<b>GP</b>	<b>Homeo-path</b>	<b>Pharm-acist</b>	<b>Physio-therapist</b>	<b>Specialist</b>	<b>Tradition Healer</b>
Allergies								
Appendicitis								
Arthritis								
Asthma								
Chronic conditions								
Chronic pain problems								
Colic in babies								
Constipation								
Diabetes Mellitus								
Sore throat								
Fractures								
Gastro-intestinal problems								
Headaches								
High Blood Pressure								
Joint/ligament sprains								
Low back pain								
Low back pain (in pregnancy)								
Muscle spasm/strain								
Neck pain								
Osteoarthritis								
Osteoporosis								
Pins and needles/ numbness in your arms or legs								
Postural Abnormalities (e.g.Scoliosis)								
Post orthopaedic surgery rehabilitation								
Shoulder pain								
Slipped disc/disc herniation								
Sports injuries								
Temporomandibular joint problems								
Viral Infections (e.g. Flu)								
Whiplash injuries								

5.4 Do chiropractors process workman's compensation claims?

Yes

☐

No

☐

I do not know

5.5 Please rate each of the following professions in terms of their importance in serving in the South African health care system. Please cross a number for each profession, with: [1] indicating 'least important' role and [4] indicating the "most important" role (Please leave out any profession/s which you are unsure of).

Acupuncture	<b>Least</b>	1		2		3		4	<b>Most</b>
Ayurvedic Medicine	<b>Important</b>	1		2		3		4	<b>Important</b>
Chinese medicine	<b>Role</b>	1		2		3		4	<b>Role</b>
Chiropractic		1		2		3		4	
Dentistry		1		2		3		4	
Emergency care		1		2		3		4	
Chiropody		1		2		3		4	
Herbalism		1		2		3		4	
Homeopathy		1		2		3		4	
Medicine		1		2		3		4	
Nursing		1		2		3		4	
Optometry		1		2		3		4	
Pharmacy	<b>Least</b>	1		2		3		4	<b>Most</b>
Physiotherapy	<b>Important</b>	1		2		3		4	<b>Important</b>
Traditional healing	<b>Role</b>	1		2		3		4	<b>Role</b>

5.6 To what extent is chiropractic accepted by the medical profession and the public of South Africa? (Please cross one box only)

Great extent

Moderate extent

Slight extent

No active role

5.7 In which sector would you say chiropractic plays a more significant role?

Public sector

Private sector

5.8 How many practicing chiropractors are you acquainted with?

None

3 to 5

1

6 to 10

2

>10

I do not know

5.9 Have you encountered any promotional material related to chiropractic? ☐ Yes

☐ No

If yes, please elaborate on what promotional material you have encountered

Yes

No

## 6. The scope of practice of chiropractic

6.1 To what extent do you believe chiropractors to be competent in neuromusculoskeletal (nerves, muscles & bones) examination and diagnosis? (Please cross one box only)

Very competent	
Moderately competent	
Slightly competent	
Incompetent	
Very incompetent	
Unable to comment	

6.2 To what extent do you believe chiropractors to be competent in general medical management of patients?

(Definition of 'general medical management' is "the ability to diagnose, treat, rehabilitate and refer the patient for optimum patient benefit")

Very competent
Moderately competent
Slightly competent
Incompetent
Very incompetent
Unable to comment

6.3 Do you think it is useful for patients to consult with chiropractors for preventative or maintenance care on a regular basis?

Yes	
No	

6.4 What kind of procedures would you expect a chiropractor to be able to perform, when necessary, in his/her assessment of a patient? (You may choose more than one option)

Administration of drugs by injection	
Auscultation	
Cardiovascular review	
Drawing of blood through syringes for blood tests	
Family history	
Genito-urinary review	
Musculoskeletal Assessment including palpation	
Neurological exam:	
- central nervous system review	
- cranial nerve review	
- peripheral nervous system review	
Orthopedic exam	
Past medical history	
Prescribe scheduled medication	
Radiological exam	
Respiratory review	
Social history	
Vital signs (heart rate, blood pressure, respiration)	

## 7. Perception of the chiropractic profession

7.4 Please rate each of the following statements reflecting your perception of the chiropractic profession.

Please cross a number for each statement, with: [1] indicating "strongly disagree" and [4] indicating "strongly agree"

I have never heard of chiropractic before; I do not know what it is	<b>Strongly Disagree</b>	1	2	3	4	<b>Strongly Agree</b>
I have heard of it before but I do not know much about it	<b>Disagree</b>	1	2	3	4	<b>Agree</b>
Chiropractic does more harm than good		1	2	3	4	
It is a very effective treatment for muscle, joint and nerve conditions		1	2	3	4	
I am uncomfortable with chiropractic		1	2	3	4	
I think it has a valuable role in the health care system		1	2	3	4	
It may be effective for some patients		1	2	3	4	
I prefer chiropractic treatment over most other physical therapies	<b>Strongly Disagree</b>	1	2	3	4	<b>Strongly Agree</b>
I am not informed enough to comment	<b>Disagree</b>	1	2	3	4	<b>Agree</b>

7.2 Which one of the following best reflects your view of chiropractic treatment? (Please tick one box only)

Chiropractic provides excellent treatment for some neuro-musculo-skeletal conditions.

I am uncomfortable with chiropractic but it is effective for some patients

Not informed enough to comment.

Chiropractic is quackery and does more harm than good.


7.3 Do you agree with the following views about the chiropractic profession? Please place an "X" in the correct box to indicate "YES" or "NO". Chiropractic /is:

accessible to everybody  
a competitive profession to physiotherapy  
a complementary profession to physiotherapy  
a drug intervention health care service  
a preventative health care service  
a primary health care service  
a rehabilitative health care service  
a secondary health care service  
a tertiary health care service  
a scientific alternative health care profession  
(registered with the Allied Health Professions Council of South Africa)  
an emergency health care service  
cost effective  
lacking scientific background  
I have no opinion/I do not know enough about it  
not needed in South Africa  
should be accessible to everybody  
should be part of an additional medical aid package  
should be covered by standard Medical aid  
should be recognized by law  
should not be covered by Medical Aid

Y
Y
Y
Y
Y
Y
Y
Y
Y
Y
Y
Y
Y
Y
Y
Y
Y
Y
Y
Y

N
N
N
N
N
N
N
N
N
N
N
N
N
N
N
N
N
N
N

7.4 Do you feel adequately informed about chiropractic?

Yes


No

Please elaborate

7.5.1 Would you like to know more about the chiropractic profession?

Yes


No

7.5.2 How would you like to be informed about chiropractic?

by an informative lecture/seminar


by meeting with relevant associations/organizations

by personal contact

by printed information packages

by research publications

by the media/press

other (please specify) \_\_\_\_\_

**Thank you very much for your time! The results will be treated confidentially**

## **Appendix D2**

### **COVERING LETTER – PILOT STUDY**

Dear Honourable Member

Welcome to the **Pilot study** of my research. Thank you for your participation.

#### **Research Title:**

“The knowledge and perceptions of provincial and national Health Portfolio Committee members of South Africa regarding the chiropractic profession.”

I have developed a questionnaire for all honourable members of the Health Portfolio Committee to complete, in order to evaluate the knowledge and perception of the respondents.

The purpose of **THIS** pilot study will be to ascertain the following information **BEFORE** the final questionnaire is delivered to the respondents:

- Are there any misleading or ambiguous questions in the questionnaire?
- Are the questions appropriate for the respondents participating in the survey?
- Would the questionnaire yield the correct and necessary information?
- Has a reasonable amount of time been allocated for the task?
- Would the instructions be clearly understood by the respondents?

#### **Procedure:**

You are requested to read the **Covering Letter** (Appendix A) that will be sent along with the questionnaire to all members of the HPC that explains the purpose of this study.

You are then requested to fully complete the **Questionnaire** (Appendix B) **AS THOUGH YOU WERE** a member of the HPC answering it. This should take approximately 15 minutes of your time.

After completing the Questionnaire IN FULL, you are lastly requested to complete the **Evaluation Form** (Appendix C) that will evaluate the quality of the Covering Letter and the Questionnaire.

Please feel free to suggest any recommendations that you may have for the Covering letter and Questionnaire on the **Evaluation form**.

Your time, opinion and assistance with this project are invaluable and greatly appreciated.

#### **Persons to contact for problems or questions:**

**Researcher:** Praveena Maharaj: 073 2567 399 or 031-3732512

**Research Supervisor:** Charmaine Korporaal: 031 3732611

Thank you for your participation in the Pilot Study of my research.  
Please be reminded that all topics discussed are strictly confidential.

## Appendix D3

### PRE-TEST EVALUATION OF QUESTIONNAIRE

1. What is your opinion of the subject matter presented in this questionnaire?  
(Please mark appropriate box)

- |                           |                          |
|---------------------------|--------------------------|
| 1.1 Extremely interesting | <input type="checkbox"/> |
| 1.2 Interesting           | <input type="checkbox"/> |
| 1.3 Average               | <input type="checkbox"/> |
| 1.4 Boring                | <input type="checkbox"/> |
| 1.5 Very boring           | <input type="checkbox"/> |

2. Do you think the topics raised in this questionnaire were adequately covered?

- |         |                          |
|---------|--------------------------|
| 2.1 Yes | <input type="checkbox"/> |
| 2.2 No  | <input type="checkbox"/> |

3. What is your opinion about the covering letter?  
(Please mark one box only)

- |                    |                          |
|--------------------|--------------------------|
| 3.1 Very Clear     | <input type="checkbox"/> |
| 3.2 Clear          | <input type="checkbox"/> |
| 3.3 Adequate       | <input type="checkbox"/> |
| 3.4 Unclear        | <input type="checkbox"/> |
| 3.5 Needs revising | <input type="checkbox"/> |

4. How would you describe the instructions accompanying each of the questions?  
(Please mark one box only)

- |                    |                          |
|--------------------|--------------------------|
| 4.1 Very clear     | <input type="checkbox"/> |
| 4.2 Clear          | <input type="checkbox"/> |
| 4.3 Adequate       | <input type="checkbox"/> |
| 4.4 Unclear        | <input type="checkbox"/> |
| 4.5 Needs revising | <input type="checkbox"/> |

5. Was the questionnaire too long?

- |         |                          |
|---------|--------------------------|
| 5.1 Yes | <input type="checkbox"/> |
| 5.2 No  | <input type="checkbox"/> |

6. What is your opinion of the wording of the questionnaire?  
(Please mark appropriate box/es)

- |   |                          |
|---|--------------------------|
| 6.1 The meaning of <b>all questions</b> is very clear           | <input type="checkbox"/> |
| 6.2 The meaning of <b>most questions</b> is clear               | <input type="checkbox"/> |
| 6.3 There is too much chiropractic/medical jargon               | <input type="checkbox"/> |
| 6.4 The questions will not be understood by the respondents     | <input type="checkbox"/> |
| 6.5 The questionnaire needs to be revised because it is unclear | <input type="checkbox"/> |

If you had any difficulty answering any question/s, please write down the number/s of the question/s in the space below with a suggestion on how the question/s could be improved.

.....

.....

.....

.....

.....

Thank you for your most valuable time in helping me with my research project.

Please be reminded that the topics discussed above are strictly confidential.

## **Appendix E**

### **CONFIRMATION OF TRAVEL SPONSORSHIP**

22 February 2007

To Whom It May Concern

As I am a member of the KwaZulu-Natal Legislature, my family is entitled to twenty four (24)

travel vouchers per year to use at their discretion to travel anywhere in South Africa via South African Airways (SAA).

Praveena Maharaj, being my daughter, has been granted access to use all of these 24 travel

vouchers and will be using them to travel within South Africa in order to deliver and retrieve the questionnaires, which she has formulated as part of her research

dissertation, to the nine provincial

and the national health portfolio committees of South Africa.

Kind regards,

Mr. Ram Maharaj

M.P.: KZN Legislature



**Appendix F**  
**LETTER OF REQUEST FOR APPROVAL OF CONDUCTING THE STUDY**

8 May 2007

The Honourable  
National Minister of Health  
Dr. M. E. Tshabalala-Msimang

Dear Minister

**HEALTH PORTFOLIO COMMITTEE SURVEY**

I, Praveena Maharaj, a fourth year chiropractic student at the Durban University of Technology in Durban, do hereby seek your blessing, support and permission to communicate with all the provincial health portfolio committees as well as the national health portfolio committee of South Africa.

As part of my Masters degree qualification, I wish to conduct a survey to assess the knowledge and perception of the members of all the health portfolio committees of South Africa as I believe that they have a vital role to play in the delivery of essential health services to all the people of our beloved country.

Please find herewith all the relevant documents.

I seek your kind permission to request for a fifteen minute time slot at one of each of the health portfolio committee's meetings, at the convenience of the relevant committee, to personally deliver and retrieve the questionnaire that I have formulated for my research.

I look forward to your positive response.

Thank you.

Yours faithfully,

.....  
Praveena Maharaj  
Researcher

.....  
Dr. C. Korporaal  
Research Supervisor



health

Department:  
health  
**REPUBLIC OF SOUTH AFRICA**

Private Bag X828, PRETORIA, 0001, 10TH Floor, House of Trade and Industry (HTI) Building, Cnr Prinsloo and Pretorius Street, PRETORIA, 0001 • Fedlife Building, Cnr Prinsloo and Pretorius Street, PRETORIA, 0001  
• Hallmark Building, 226 Vermeulen Street, PRETORIA  
Tel (012) 312 0816 Fax (012) 323 0093

J1/2/2

Miss P Maharaj  
Department of Chiropractice  
PO Box 1334  
**DURBAN**  
4000

Dear Miss Maharaj

**HEALTH PORTFOLIO COMMITTEE SURVEY**

Your letter dated 11 May 2007 has reference.

The Department of Health is not in a position to give permission to include the Health Portfolio Committees members in your research project.

You are advised to please contact the Portfolio Committee members directly to get the permission. A list with all the details is attached.

Kind regards

  
**MRS CC KOTZENBERG**  
Date: 19 June 2007

Cluster Manager: Non-Communicable Diseases  
Department of Health  
Private Bag X828  
PRETORIA  
0001

Tel: (012) 312-0218  
Fax: (012) 312-3132  
E-mail: [rensba@health.gov.za](mailto:rensba@health.gov.za)

cc Dr K Chetty

MEMBERS OF THE PORTFOLIO COMMITTEE ON HEALTH (NATIONAL ASSEMBLY)  
February 2006

MEMBER	POLITICAL PARTY	TEL NO.	FAX NO.
Mr L V J Ngculu MP (Chairperson)	ANC	021 403-3240	021 403-2072
Mr A F Madella MP	ANC	021 403-3132	021 403-2808
Mr B L Mashile MP	ANC	021 403-3770	021 403-2808
Ms M L Matsemela MP	ANC	021 403-3963	021 403-2808
Mrs M M Madumise MP (Chief Whip)	ANC	021 403-3770	021 403-2808
Ms M N S Manana MP	ANC	021 403-2696	021 403-2808
Ms R Mashigo MP	ANC	021 403-3146	021 403-2808
Ms M Tlake MP	ANC	021 403-2911	021 403-
Ms Gareth Morgan MP	DA	021 403-2911	021 403-8681
Mr R Coetzee MP	DA	021 403-3398	021 403-8681
Dr R Rabinowitz MP	IFP	021 403-2911	021 403-2808
Mr M W Sibuyana MP*	IFP	021 403-2911	021 403-2808
Ms N C Nkabinde MP	UDM	021 403-3071	021 403-2525
Ms F Batyi MP	ID	021 403-2911	021 403-2808
Mr B E Pule MP*	UCDP	021 403-2911	021 403-2808
Ms C Dudley MP	ACDP	021 403-2913	021 403-2808
Mr N T Godi MP*	PAC	021 403-2911	021 403-2808
Ms R Rajbally MP	MF	021 403-2911	021 403-2808

N.B: The names that appear asterisk denote that the members are alternates.

Committee Secretary: Ms Vuyokazi Majalamba

Tel: 021 403-3642

Fax: 021 403-2808

e-mail: vmajalamba@parliament.gov.za

**SELECT COMMITTEE ON SOCIAL SERVICES (NCOP)**  
**February 2006**

<b>Name</b>	<b>Party</b>	<b>Office No.</b>	<b>Fax No.</b>
Ms JM Masilo MP (Chairperson)	ANC	4032895	4038733/ 2473
Mr OM Thetjeng MP	DA	403 2696	4610092
Mr BJ Tolo MP	ANC	4033040	4032750
Mr MA Sulliman MP	ANC	4032455	4032471
Mr JO Thagale MP	UCDP	4033501	403 3525
Ms H Lamoela MP	DA	403 2960	
Ms JN Vilakazi MP	IFP	403 3018	461 9317
Ms M Madlala- Magubane MP	ANC	403 2893	403 3934
Mr T Setona MP	ANC	403 3117	403 2660
Ms A N D Qikani MP	UDM	403 8639	403 2525
Ms F N Mazibuko MP	ANC	403 2867	4032473

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# RESEARCH APPROVAL FROM FACULTY OF HEALTH SCIENCES ETHICS AND RESEARCH COMMITTEE

Student Name	Praveena Maharaj	Student No	20405381
Ethics Reference Number	FHSEC	Date of FRC Approval	
Research Title:	The knowledge and perceptions of provincial and national Health Portfolio Committee members of South Africa regarding the chiropractic profession		

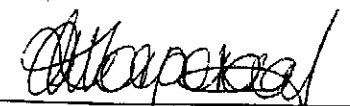
In terms of the ethical considerations for the conduct of research in the Faculty of Health Sciences, Durban University of Technology, this proposal meets with institutional requirements and confirms the following ethical obligations:

1. The researcher has read and understood the research ethics policy and procedures as endorsed by the Durban University of Technology, has sufficiently answered all questions pertaining to ethics in the DUT 186 and agrees to comply with them.
2. The researcher will report any serious adverse events pertaining to the research to the Faculty of Health Sciences Research Ethics Committee.
3. The researcher will submit any major additions or changes to the research proposal after approval has been granted to the Faculty of Health Sciences Research Committee for consideration.
4. The researcher, with the supervisor and co-researchers will take full responsibility in ensuring that the protocol is adhered to.
5. **The following section must be completed if the research involves human participants:**


	YES	NO	N/A
❖ Provision has been made to obtain informed consent of the participants	✓		
❖ Potential psychological and physical risks have been considered and minimised	✓		
❖ Provision has been made to avoid undue intrusion with regard to participants and community	✓		
❖ Rights of participants will be safe-guarded in relation to:			
- Measures for the protection of anonymity and the maintenance of Confidentiality.	✓		
- Access to research information and findings.	✓		
- Termination of involvement without compromise	✓		
- Misleading promises regarding benefits of the research	✓		

  
SIGNATURE OF STUDENT/RESEARCHER

15:04:2008  
DATE

  
SIGNATURE OF SUPERVISOR/S

15-4-08  
DATE

  
SIGNATURE OF HEAD OF DEPARTMENT

15-4-08  
DATE

  
SIGNATURE: CHAIRPERSON OF RESEARCH ETHICS COMMITTEE

18/4/08  
DATE