

**THE PERCEPTIONS AND ATTITUDES OF SOUTH  
AFRICAN PHYSIOTHERAPISTS ABOUT THE  
CHIROPRACTIC PROFESSION**

A dissertation presented to the Faculty of health Services, Durban Institute of Technology, in partial fulfillment of the requirements for the Master's Degree in Technology: Chiropractic.

**By  
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I, Samuel John Hunter, do hereby declare that the following dissertation represents my own work, both in conception and execution.

.....Date: 22-11-2004

Approved for final submission.

Dr. C. Korporaal,

.....Date: 22-11-2004

## **Dedication:**

*For my God; my family; and my love.*

# Acknowledgements

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# **Glossary**

**Attitudes:** This refers to a way of thinking, which governs one's behaviour towards something. (Oxford Advanced Learner's Dictionary 1997)

**Perceptions:** Refer to the way in which things are seen, understood to be like, and interpreted as. (Oxford Advanced Learner's Dictionary 1997)

**Chiropractic:** The World Federation of Chiropractic (2001) defines the chiropractic profession as: "a health care profession concerned with the diagnosis, treatment, and prevention of disorders of the musculoskeletal system and the effects of these disorders on the function of the nervous system and general health". This is in congruence with the definition as available from the Chiropractic Association of South Africa (<http://www.chiropractic.co.za>).

**Physiotherapy:** Physiotherapy is defined by, the World Confederation of Physical Therapy (2000) (and abbreviated by the Australian Physiotherapy Association) as: "a health care profession who treat people with musculoskeletal, neurological and cardiopulmonary problems. Treatment interventions are based upon sound principles of clinical reasoning, decision-making diagnosis and evidence-based practice". The South African Society of Physiotherapy refines the above definition in the following way: " Physiotherapy is the: "Assessing, treating and preventing human movement disorders, restoring normal function or minimizing dysfunction and pain in adults and children with physical impairment, to enable them to achieve the highest possible level of independence in their lives; preventing recurring injuries and disability in the workplace, at home, or during recreational activities and promoting community health for all age groups."" (<http://www.physiosa.org.za/>).

# **Abstract**

Chiropractors and physiotherapists treat a common pool of patients, often using similar modalities to treat them, yet there has always been an apparent antagonism towards each other as recorded in the literature. This is therefore assumed to be true in the South African context; however there has never been any quantifiable evidence as to what the interprofessional ties are between these two professions in this context.

The purpose of this study was to determine the current perceptions and attitudes of South African physiotherapists of the chiropractic profession. This will provide a basis for future studies, where the relationship between the two professions can be further explored. In particular, regarding future collaboration in terms of patient inter-referral and benefit.

This was done by means of a questionnaire, which was adapted to the South African context; using a focus group; and distributed to a random sample of South African physiotherapists (580) for completion and return along with a covering letter.

One hundred and seventy seven respondents met the inclusion criteria and were included in the sample. This constituted a response rate of just under 31% and a sample representing 15% of the total population (1186) at the time at which the study was conceptualised (2002).

The data from the questionnaires were analysed using SPSS v.9.0. Simple descriptive analysis (frequency counts) was used to analyse most of the questions excluding the few questions, which required an open (therefore qualitative) response, where thematic analysis (i.e. axial coding) was employed.

It was discovered from the data collected that two thirds of the respondents feel inadequately informed about chiropractic. South African physiotherapists

do not feel as if they know enough about chiropractic and the vast majority (82%) of them would like to know more about the profession. The vast majority of the respondents also believed that good co-operation between chiropractors and physiotherapists would be beneficial to both professions as well as their patients. However, when questioned about how good they considered co-operation and communication between chiropractors and physiotherapists to be, the large proportion (76% and 83% respectively) of the respondents said that it was poor to non-existent. This indicates that some changes will need to be made in the future to improve co-operation between the chiropractors and the physiotherapists, in order to benefit both professions as well as their respective patients. There are more physiotherapists, which believe chiropractic to be complementary to physiotherapy, than those who believe it to be competitive to it. The majority (61%) of the respondents perceived chiropractic to be an alternative health care profession and not as a primary health care profession. Many of the physiotherapists who responded felt not informed enough to comment on their views on chiropractic. However the majority of those who did comment said that chiropractic provides excellent treatment for some neuro-musculo-skeletal conditions.

It was apparent from this study that in order for the interprofessional ties between these two professions to grow, education leading to an accurate awareness of what chiropractic is will be necessary.

Further studies need to be conducted, into how better communication and co-operation between chiropractors and physiotherapists can be reached, now that it has been discovered that it is poor and that a improvement in this area will be beneficial to both professions as well as their patients.

# **CHAPTER 1**

## **Introduction**

It has been well publicized in recent years that there is a definite need for interprofessional relationships to develop between the different health care professions. This development, it is thought, could lead to the production of a symbiosis among health professionals which is beneficial not only to the health care professionals themselves but, more importantly, to the patients they treat. However, in order for this to occur, careful studies are first required which investigate each profession's current attitudes and perceptions of another similar or a different profession.

Chiropractors and physiotherapists treat a common pool of patients, often using similar modalities to treat them. Yet despite this, or indeed perhaps even because of this, there has always been an apparent antagonism towards each other, as recorded in the literature (Paris 2000). This antagonism has never been quantifiably assessed and therefore no conclusive statements about it can be made in the South African context.

Thus a study into the current attitudes and perceptions held by South African physiotherapists of the chiropractic profession may prove beneficial in furthering interprofessional relationships and improving patient care. In addition to this, it may trigger further studies into this vast field.

To provide some background to this study, attitudes and perceptions<sup>1</sup> are often believed to be governed by the paradigm in which a profession finds itself. In the case of chiropractic and physiotherapy, tension has traditionally existed between the two professions due to non-congruent philosophical

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<sup>1</sup> When perceptions are spoken of in this context, it refers to the understanding the physiotherapist holds of what the chiropractic profession is and what it consists of. Attitude refers to the physiotherapist's way of thinking and it therefore governs behaviour towards the chiropractic profession.

views. The most pragmatically observable evidence of this status quo has been the negative perceptions and attitudes of these two manual medicine professions towards one another (Paris 2000).

With the development of philosophy, clinical science and pragmatism within the two professions, it seems reasonable that interprofessional relations may also have changed. However this cannot be assumed.

Therefore, in light of the above, the problem statement for this research study was: to analyze the perceptions and attitudes held by South African physiotherapists of the chiropractic profession in order to determine the impact on the relationship between the professions

The aim of this study was to:

1. Establish the present attitudes of a sample of South African physiotherapists toward the chiropractic profession.
2. Establish the perceptions, which a sample of South African physiotherapists has of the chiropractic profession.

Once the attitudes and perceptions of the physiotherapists in South Africa have been established, then the following areas might be addressed in the future:

- ❖ Future collaboration in terms of patient inter-referral / benefit.
- ❖ Future collaboration in terms of research.
- ❖ How the relationship between these two professions can be bettered, explored and improved upon.

# **CHAPTER 2**

## **Literature Review**

Physiotherapy and chiropractic are both health care professions that specialize in the treatment of disorders pertaining to the neuro-musculo-skeletal system. Due to their coexistence in South Africa for many years, it might be expected that the two professions would have developed an inter-professional relationship and, in particular, that they would have been sensitized to the other's philosophies and treatment protocols. In this section, the author will draw on current literature to articulate some of the similarities and differences in the philosophical and practical bases of the two professions historically hindering the interpersonal relationship between the two.

The World Federation of Chiropractic (2001) defines the chiropractic profession as: "a health care profession concerned with the diagnosis, treatment, and prevention of disorders of the musculoskeletal system and the effects of these disorders on the function of the nervous system and general health". This is in congruence with the definition as available from the Chiropractic Association of South Africa (<http://www.chiropractic.co.za>).

Physiotherapy, on the other hand, is defined by, the World Physiotherapy Association (2000) (and abbreviated by the Australian Physiotherapy Association) as: "a health care profession who treat people with musculoskeletal, neurological and cardiopulmonary problems. Treatment interventions are based upon sound principles of clinical reasoning, decision-making diagnosis and evidence-based practice" (<http://apa.advsol.com.au>). The South African Physiotherapy Association refines the above definition in the following way: Physiotherapy is the: " Assessing, treating and preventing of human movement disorders, restoring normal function or minimizing dysfunction and pain in adults and children with physical impairment, to enable them to achieve the highest possible level of independence in their lives; preventing recurring injuries and disability in the workplace, at home, or

during recreational activities and promoting community health for all age groups" (<http://www.physiosa.org.za/>)

In the Canadian Physiotherapy Association (CPA) commentary (<http://www.ndir.com/chiro/cpa-manga.html>) on the Manga report (2000), it was stated that the major differences between physiotherapists and chiropractors are:

### **1. Their Training and Education**

This difference may have been substantiated before. However, more recently, if the curriculum of the MTech Degree in chiropractic at the Durban Institute of Technology and the BSc. degree in physiotherapy at the University of Cape Town are observed and compared, it becomes evident that these are not as different as it is often assumed. The similarities include a number of common subjects and techniques used (UCT online Department Guide, 2002; Chiropractic Handbook for Faculty of Health Sciences, Durban Institute of Technology, 2003). Furthermore, some textbooks referenced by the respective students are often the same.

### **2. Their Integration Into the Health Care Team**

Unlike the Physiotherapists, who have always had medical aid cover by most major South African medical aids, until the last decade medical aids did not cover chiropractic treatment in South Africa. This has, however, in recent years been changed, and now Chiropractic treatment is very much a part of most medical aid schemes in South Africa (Chiropractic Association of South Africa information booklet 2004/2005).

### **3. In Their Philosophy of Treatment Approach**

Since Chiropractic traditionally claimed to "cure it all" by manipulation, it was for many years a target for orthodox medicine and the biomedical model, with chiropractic philosophy appearing to lie in direct opposition to the mainstream medical philosophy. However, in recent years the philosophy of the "law of the nerve" has been replaced with a more acceptable scientific model (Paris 2000) which has brought it much closer to the more orthodox biomedical

paradigm. Physiotherapy, on the other hand, has always aligned itself to the biomedical model.

It can be noted from the above that these one time major differences between the chiropractic and physiotherapy professions seem to have decreased substantially. Yet the two professions still seem remote, re-enforcing the notion that the early philosophical underpinning as indicated by the CPA (2000) plays a powerful, if not the most powerful, role in the separation of the two professions. The fact that the education of chiropractors in South Africa appears very similar to that which one would traditionally find in a profession from the biomedical model, suggests that although chiropractic theories and practices have changed substantially since its beginnings (Haldeman 2000), the perceptions and attitudes of those within the biomedical model may not have evolved as quickly.

The above factors have all contributed to the paradigms, which the two professions now find themselves. A professional paradigm shapes the nature and beliefs of that profession's members. Chiropractic theories, right from their creation, were in direct opposition to mainstream medicine. The claim to "cure all by spinal manipulation" immediately created skepticism about its validity among those practicing within the biomedical paradigm (Haldeman 2002). According to Paris (2000) physiotherapy, has for a long time been aligned to, and a part of, the biomedical paradigm. Therefore, with chiropractic being in opposition to the biomedical paradigm, and falling under a separate paradigm (the alternative medical paradigm) the possibility of conflict between the two professions was inevitable (Haldeman 2002). Coulter (1992) in agreement stated that although chiropractic is an established part of the health care system, there is still opposition from powerful groups, including mainstream medicine, based on the philosophical grounds underpinning the respective fields. This is also the view held by Stranack (1995), who investigated the issue of philosophical dogma threatening chiropractic in South Africa. Stranack (1995) believes that preposterous claims made by some chiropractors have alienated the profession from mainstream medical health care. This includes physiotherapy and other health professionals within



the biomedical paradigm who do not wish to be associated with chiropractors who believe and practice a theory of health care delivery which is not compatible with basic clinical science.

However there are other possible reasons behind the opposition to chiropractic that have been and still are hypothesized to be:

- ❖ Paris' (2000) view is that claims by chiropractors in the past to cure it all by manipulation made them easy targets for orthodox medicine. However, modern chiropractic has moved away from this claim and has adopted a great deal of additional, but traditionally physiotherapeutic modalities (Paris, 2000). In so doing it has found itself in "head-to-head competition with physiotherapy".
- ❖ The lack of scientific validity, as well as unsubstantiated claims made by some chiropractors (Silver 1980) in times gone by.
- ❖ Lack of awareness. In some countries, (e.g. The Netherlands), it has been found that better awareness education of what the chiropractic profession involves may be beneficial, as "greater awareness appears to be associated with increased levels of interprofessional acceptance and respect" (Langworthy and Smink, 2000).
- ❖ According to Stano (1993), neuro-musculo-skeletal disorders are extremely prevalent. However, even though a large pool of patients exist common to both chiropractic and physiotherapy, Michaeli (1991) comments that physiotherapists, especially those who manipulate, are concerned about increasing competition from chiropractors.
- ❖ Also, often when interprofessional relations between chiropractic and other health professions seem to be progressing well, old issues are resurrected, which deter progress in interprofessional relations. A good example of this is when Ernst and Assendelft (1998) speculated that chiropractic might be hazardous to health, and concluded that there may be more negative than positive evidence for chiropractic treatment. This article was published in the British Medical Journal and may have contributed further to the delay in chiropractic's full acceptance into mainstream health care. The claims of Ernst and

Assendelft (1998) were later rebutted Rosner & Morley (2001) and evidence given to the contrary.

All these factors have been accentuated over the last few years by lack of co-operation and communication between the professions (Meeker and Haldeman 2002).

Therefore Meeker and Haldeman (2002) refers to the chiropractic profession as having now come to a crossroads between alternative and mainstream medicine. Although the biomedical paradigm, including physiotherapy, has not yet fully accepted chiropractic as a mainstream form of health care, the next decade should determine whether chiropractic maintains the trappings of an alternative health care profession or becomes fully integrated into all health care systems.

According to Meeker and Haldeman (2002), the key to this integration will be:

- a. greater transparency,
- b. co-operation, and
- c. better communication between health care professionals.

Manga et al. (1993) concluded in their study that it is apparent that greater collaboration amongst key health care providers (chiropractors, physicians and physiotherapists) is required to ensure that the "right people are doing the right thing at the right time" and thus ensuring the patient is receiving optimum care at all times. This emphasizes the need for development of interprofessional relationships and communication between the professions. The only manner, in which this can be achieved, is to determine what the current interprofessional attitudes and views are.

On these grounds a study was performed by Langworthy and Smink (2000) in the Netherlands to ascertain the current views held by Dutch physiotherapists of the chiropractic profession. A questionnaire was sent to a group of the country's physiotherapists, the results of which suggested that education for other health care providers about the role of chiropractic may be beneficial, as

"greater awareness appears to be associated with increased levels of interprofessional acceptance and respect" (Langworthy and Smink, 2000). Also although closer links between the professions was welcomed, it was noted that at the time of the study communication and co-operation between chiropractors and physiotherapists was poor to non existent in the Netherlands. In addition to this there was only a minimal support on the part of the respondents for chiropractic to become available as part of the Dutch National Health Scheme. In the Netherlands, chiropractic was generally seen by physiotherapist to be a primary health care profession most suited to extramural care.

It is important to repeat this study (Langworthy and Smink, 2000) in as many different contexts as possible, as each country will vary considerably in its culture, health care delivery scheme, education of health care professionals, and interprofessional relations (Hupkes, 1990). The latter is likely to be dependent on how willing and able the professions are to move towards a more multidisciplinary mode of practice.

In South Africa, a crisis in the health care delivery system has resulted from confounding factors, which include but are not limited to: a shortage of resources; the high cost of health care; a lack of interprofessional cooperation (due to understaffing and lack of education); and the under-utilization of more cost effective treatment (Hupkes, 1990).

It is evident that a resource based on effective and efficient interprofessional communication and referral would assist in the development of a more effective healthcare system and therefore allow for some attenuation of the current crisis.

It would therefore appear, that in order for interprofessional relations to develop between the chiropractic and physiotherapy professions in South Africa, there needs to be an investigation to ascertain the current attitudes and perceptions of South African physiotherapists towards the chiropractic profession.

Thus the aim of this research was to establish the present perceptions and attitudes of a sample of South African physiotherapists toward the chiropractic profession.

# **CHAPTER 3**

## **Materials and Methods**

### **INTRODUCTION:**

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

### **STUDY DESIGN**

The study is an empirical, quantitative / qualitative study, based on a previously used questionnaire, which predominantly uses a Likert scale, but also contains several open-ended questions.

### **METHODOLOGY**

For the purposes of this study a perception and attitude questionnaire (PAQ) was utilized to gather the relevant information.

In general, questionnaires are a good source of information, provided that the questionnaire has been proven reliable and valid (Mouton, 1996).

Questionnaires are the tool of choice for a project such as this as, provided the questions are worded carefully, it ensures bias, on the part of the researcher, is kept to a minimum and there is less chance of misinterpretation of results (Mouton, 1996). This is especially pertinent in this study, where the researcher is a chiropractic student. This may lead to an inherent bias in terms of the interpretation of the results in the study. Therefore the objectivity of the questionnaire is essential in ensuring that researcher bias is kept to a minimum. To clarify; the questions, making up the questionnaire, are objective and the focus group, used in this study, helped to ensure that there was little chance of misinterpretation or biased interpretation of the results. The focus group did this by examining the wording of each question in the questionnaire and making sure that it was both objective and not ambiguous in any way.

Background to the PAQ and the questionnaire used in this study (Appendix A):

The PAQ, on which the current questionnaire has been based, has been shown to be a useful instrument in previous studies of a similar nature (Daam, 1996; Langworthy and Smink, 2000; Assendelft et al, 2001).

The questionnaire utilised by Langworthy and Smink (2000) was evolved from that used by Daam (1996) and also used by Assendelft et al (2001). The study by Daam in 1996 related to Dutch general practitioners' perceptions and preferences in relation to chiropractic, whereas the study by Assendelft et al (2001) assessed interprofessional links between GP's and chiropractors more closely.

The Langworthy and Smink (2000) study was conducted in the Netherlands. In their study the face and construct validity of the questionnaire were established (Langworthy and Smink, 2000). This simply means that Langworthy and Smink (2000) have previously demonstrated the usefulness of the questionnaire, to be used in this study. The instrument was found to be unambiguous; and capture of the data was reliable as defined by Mouton (1996).

In the South African context, a pilot procedure was completed, because with translation or adaptation of a questionnaire there are inherent problems (Scollen and Scollen, 1995). Even if words are adapted accurately, the meaning of a phrase or combination of words may lose some of their clarity, as meaning is not only determined by words or phrases, but also in their interpretation by others from different cultures, backgrounds and language capabilities (Scollen and Scollen, 1995). This is because when words are taken out of context they will lose their meaning (Baynham, 1995). If questions are interpreted incorrectly then obviously it follows that the results may not be accurate. Therefore it is important to do such pilot studies, even if the questionnaire remains entirely unchanged to ensure that no meaning is lost when the questionnaire is used in different cultures and countries.

When establishing validity, the degree to which a particular tool reflects reality is being tested (Mouton, 1996). This process is vital in order to ensure that future research utilising the particular tool is accurate (Bernard, 2000).

With translation, face validity may be lost as the questions themselves might not be understood, thus error could be introduced into the results. Construct validity is however retained. Therefore, in the current study, a focus group (n=8) was completed to investigate the face validity of the questionnaire in the South African context and to ensure that all questions were unambiguous.

This should limit potential misinterpretation by the respondents according to Scollen and Scollen (1995). Most importantly, it will ensure the questionnaire will work effectively in the South African context, with the face validity adapted to the South African context and the construct validity unchanged (Mouton 1996).

The focus group was selected in order to cover as broad a spectrum of physiotherapists as possible, including physiotherapists who are pro chiropractic, against chiropractic, experienced and relatively newly qualified. This was achieved through the researcher's personal communication with various physiotherapists, some of which were then requested to be a part of the focus group for the study.

Following the focus procedure, minor changes were made to the questionnaire to enhance the understanding of a few of the questions. This established the face validity of the questionnaire, while still ensuring that the content of the questionnaire was not altered. The final, corrected questionnaire was developed and printed for use in this study (Appendix A). The minor amendments to the questionnaire made from the pilot study can be seen as Appendix D.

### **Sampling procedure**

The ideal sample size was 10% (n=120) of the population or greater (Thomas, 2002 personal communication). The population size at the time of the study's conception (2002) was 1186 physiotherapists (Official Members Directory 2001/2002)

The sample was also stratified according to:

- ❖ Number of years experience in profession
  - It was the attempt of the researcher to ensure that amongst the responses; there was a range of both newly qualified and more experienced physiotherapists.
- ❖ The geographical distribution of the physiotherapists in South Africa.
  - It was the attempt of the researcher to ensure that amongst the responses there was representation from each of the 9 provinces.

Each recipient was randomly selected from each region within South Africa, from a list of all the physiotherapists registered with The South African Society of Physiotherapy with a greater number of questionnaires were sent to the areas and provinces in which a larger number of physiotherapists practice. This random selection process was done using MS Excel to generate random numbers corresponding to names. To clarify once more, the entire population of registered physiotherapists in South Africa were stratified and then within those stratified groups a random sample was selected.

Amongst the returned questionnaires it was the attempt of the researcher to ensure that there were at least a percentage of responses from each of the nine provinces in which physiotherapists fitting the criteria were found.

The stratification was done to maximise the validity of the results and make sure that the results were indeed as true a reflection as possible of the subject at hand.



Physiotherapists were recruited into the study provided they met the inclusion criteria:

**The inclusion criteria were:**

1. Each participant must have been registered with the South African Society of Physiotherapy.
2. They must have been residents of the Republic of South Africa.
3. They must have had a full complement of contact details.
4. The questionnaire must have been returned completed.

**Exclusion Criteria:**

1. Any physiotherapist who was not registered with the South African Society of Physiotherapy.
2. Any physiotherapist who was not a South African resident.
3. Any physiotherapist who was not familiar with the English language was excluded, as the questionnaire was only available in English.
4. If the questionnaire was returned incomplete or not filled in at all it was excluded from the sample and regarded as a non-respondent.
5. Non-responses were not included.

**Method**

The questionnaire was distributed via post to the randomly selected sample group (n=580 out of a population size of +-1186). The questionnaires were pre-coded by a neutral party beforehand to ensure anonymity.

In order to increase the chances of receiving a minimum return of 120 questionnaires (or +-10%), 580 physiotherapists received the questionnaire.

Each selected physiotherapist received an envelope containing:

- a. A letter of explanation and introduction (**APPENDIX B**)
- b. The questionnaire
- c. A return, stamped, self-addressed envelope,

this was to ensure maximum compliance from respondents by making the return of the questionnaire as simple as possible. The return address was that of a neutral party. In this case the neutral party was a Faculty Health Officer in the Faculty of Health Sciences who did not expose the identity of the respondent to the researcher, having coded them beforehand.

Therefore the researcher, at no stage had access to the details of the respondents, thus ensuring that anonymity was maintained throughout the study. The details of the correspondents were destroyed on completion of the study.

## **DATA ANALYSIS**

The analysis was to include mostly simple frequency counts (descriptive analysis) with results being reported as percentages.

The data, where possible, were analysed in order to demonstrate perceptions and attitudes. To this end

- ❖ cross-tabular analysis and
- ❖ chi square statistical evaluations were utilised.

The data were illustrated using frequency tables, pie charts and bar graphs.

A p-value equal to or less than 0.05 was considered statistically significant and the programme used to process the data was SPSS v.9.

For the few questions that had an open section, which required a brief response, thematic analysis (axial coding) was employed. Here themes were identified by bringing together components or fragments of ideas and then classified and once again the frequency of each group was recorded. From this the most important themes could then be identified.

# **CHAPTER 4**

## **Results and Discussion:**

Only the figures of results that feature in the discussion, are shown here. The full list of results can be seen at the end of this study as **APPENDIX C**.

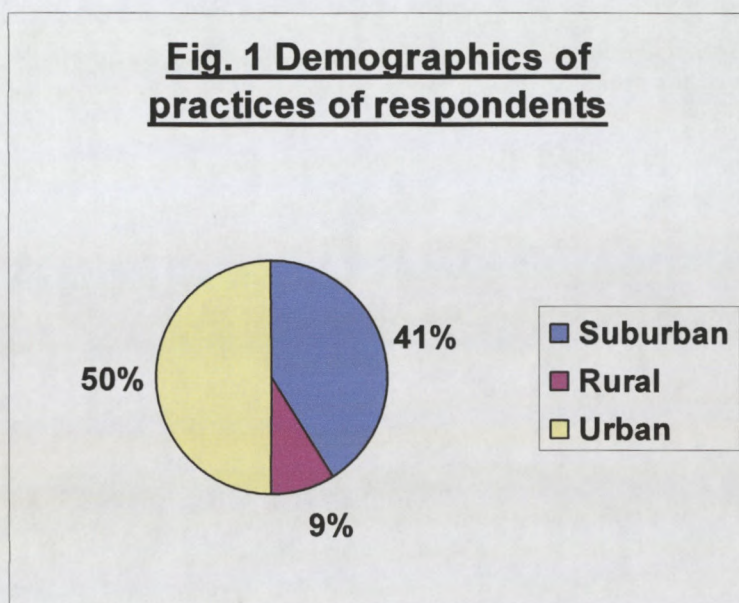
Overall 210 questionnaires were returned out of the 580 which were distributed to a population size of 1186 (2002) meeting the inclusion criteria stipulated by the researcher. Of the respondents, however, only 177 met the inclusion criteria.

The sample was fairly accurately in proportion to the population with regards to gender; provincial distribution and age distribution. Responses were received from all 9 provinces (Table 1).

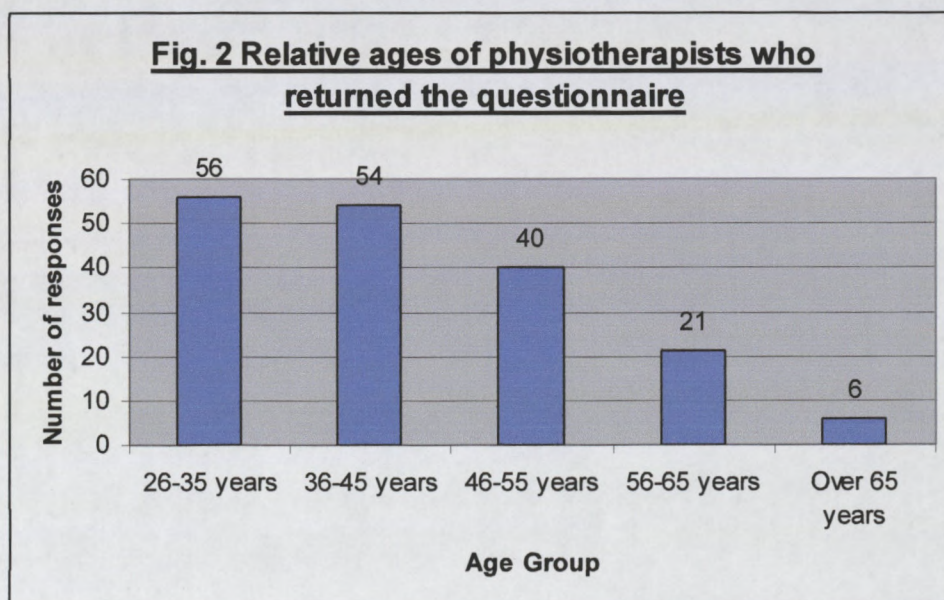
**Table 1**  
**Which province are you from?**

<b>Province</b>	<b>Number of responses</b>	<b>Number of registered physiotherapists in province</b>
Gauteng	71	451
Northern Province	5	23
Western Province	32	266
Kwazulu Natal	24	125
Eastern Province	10	49
Northern Cape	2	7
Free State	12	45
North West Province	11	22
Mpumalanga	10	35

The majority from those provinces with a higher number of practicing physiotherapists for example Gauteng (n=71) and the least coming from provinces in which there are not many physiotherapists practice for example the Northern Cape (n=2). Also the highest number of responses (50%) were received by physiotherapists practicing in a urban environment (Fig. 1).



Those physiotherapists who fell between the ages of 26 and 35 years (n=56) formed the largest portion of the respondents (Fig. 2), while those over the age of 65 formed the smallest group (n=6).

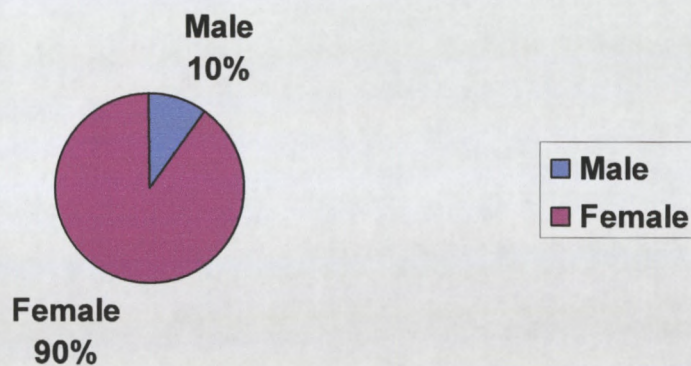


Of the respondents only 10% were male (Fig.3), which at first glance may appear to skew the sample, however when one observes the gender ratio



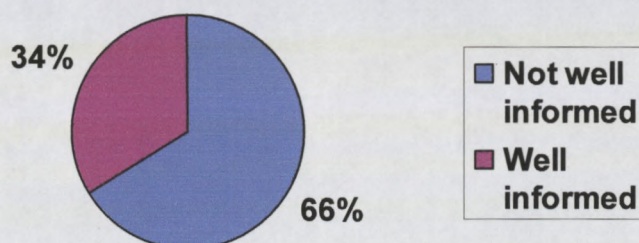
found within the South African Society of Physiotherapy it is found to be in very similar proportions (Official Members Directory 2001/2002).

**Fig. 3 Are you male or female?**



Two thirds of the respondents felt inadequately informed (Fig.4) about chiropractic.

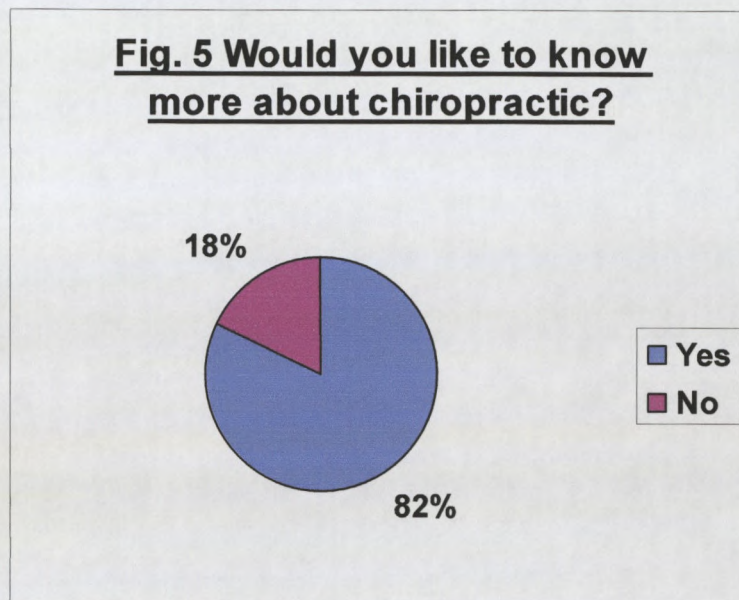
**Fig. 4 Do you feel adequately informed about chiropractic?**



South African physiotherapists do not feel as if they know enough about chiropractic and the vast majority (82%) of them would like to know more about the profession (Fig.5). This is an encouraging statistic as this indicates that although the majority of the physiotherapists who responded admitted



that they were inadequately informed about the chiropractic profession, they had an interest in knowing more about it and thereby possibly being able to enhance further ties between the professions. Some respondents specifically indicated some areas in which they would like to enhance their knowledge of chiropractic.



The three most popular answers given, when asked specifically what would they like to know more about, were in descending order the following: the chiropractors scope of practice (n=10); treatment protocols used by chiropractors (n=6) and the details of the chiropractic syllabus and the course outline (n=5). Additionally, the most popular (43%) choice of being informed (Table 2) for the respondents was via a printed information package.

**Table 2**

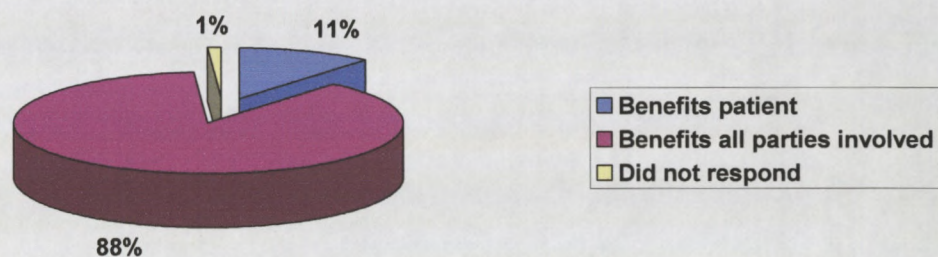
**How would you like to be informed about chiropractic?**

Method	Percentage of respondents
By a printed information package	43%
By an informative lecture/seminar	41%
Via research publications	32%
By personal contact by a local chiropractor	25%
By the media/press	3%



This information is valuable as it guides chiropractors that are interested in educating other professions (particularly physiotherapists) about their profession as to the best way to go about it. This is very important in improving and correcting any errant perceptions about the chiropractic profession, which may be affecting attitudes towards the profession.

**Fig.6 Which party will benefit from better co-operation between physiotherapists and chiropractors?**



The vast majority (88%) of the respondents (Fig. 6) believed that good co-operation between chiropractors and physiotherapists would be beneficial to both professions as well as their patients and there are many areas in which physiotherapists believe that co-operation between chiropractors and physiotherapists can occur (Table 3). The three top areas considered were: Spinal problems (97%); sacro-iliac problems (95%) and chronic pain relief (67%).

**Table 3**

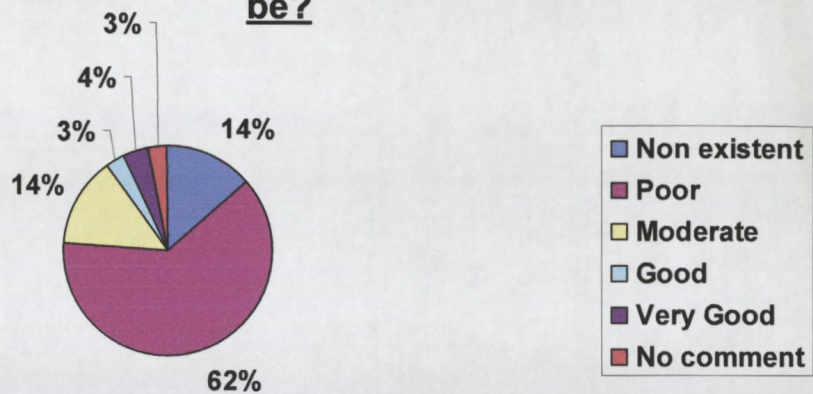
**What do you think the potential areas of co-operation are  
between physiotherapists and chiropractors?**

Potential Area	Percentage of respondents
Spinal problems	97%
Sacro-iliac problems	95%
Chronic pain relief	67%
Acute pain relief	53%
Structural postural problems	52%
Functional postural problems	50%
Orthopedic rehabilitation	42%
Neurological rehabilitation	41%
Sports injuries	28%
Other areas	27%
Muscle balance problems	26%
None	3%

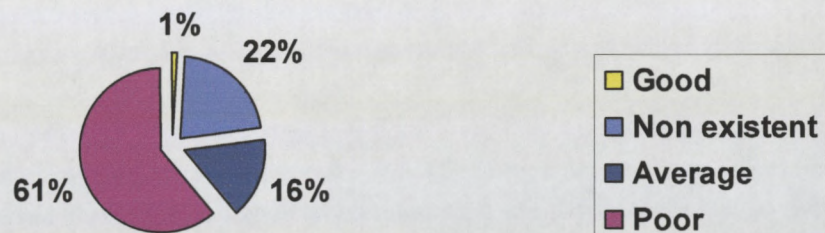
However, when questioned about how good they considered co-operation (Fig. 7) and communication (Fig.8) between chiropractors and physiotherapists to be, a large proportion (+/- 80%) of the respondents said that it was poor to non-existent. Additionally, regular patient referral between the two professions appeared not to be a popular trend at the moment (see Fig. 9 &10).



**Fig. 7 How good do you consider co-operation between physiotherapists and chiropractors to be?**

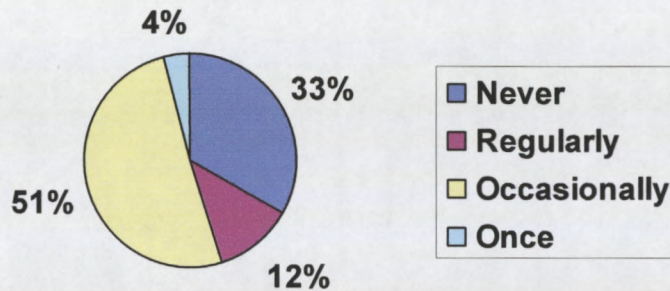


**Fig. 8 How good do you consider the communication between physiotherapists and chiropractors to be?**

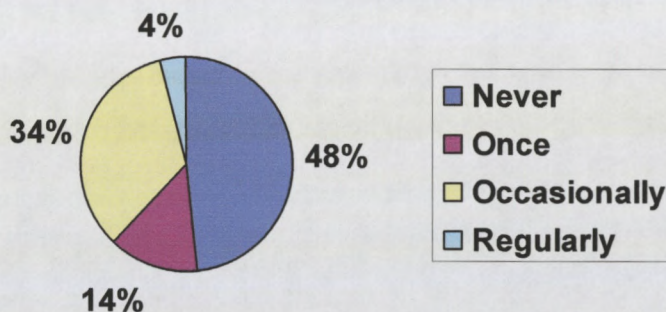




**Fig.9 Have you ever referred a patient to a chiropractor?**



**Fig.10 Has a chiropractor ever referred a patient to you?**



This indicates that some changes are urgently required to improve co-operation between the chiropractors and the physiotherapists, and these changes would benefit both professions as well as their respective patients (Fig.6). Also, interestingly, when questioned about inter-referral of cases between the professions, where the patient's condition remains unresolved after treatment, the overwhelming response (75%) was that the chiropractor and the physiotherapist should decide further action together (Table 4 & 5). This indicates that the respondents desire better communication and co-operation between physiotherapists and chiropractors.



**Table 4**

**If you refer a patient to a chiropractor and the case remains unresolved after treatment by the chiropractor, what would you expect the chiropractor to do?**

Mode of action	Percentage of respondents
Refer back to General Practitioner	5%
Refer back to physiotherapist	20%
Decide on further action together	75%

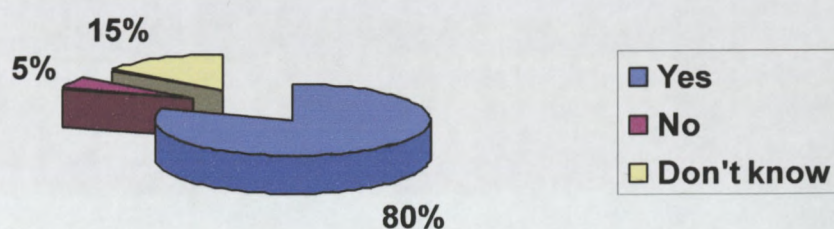
**Table 5**

**If a chiropractor refers a patient to you and the case remains unresolved after your treatment, what would you do?**

Mode of action	Percentage of respondents
Refer back to physiotherapist	10%
Refer back to General Practitioner	10%
Decide on further action together	80%

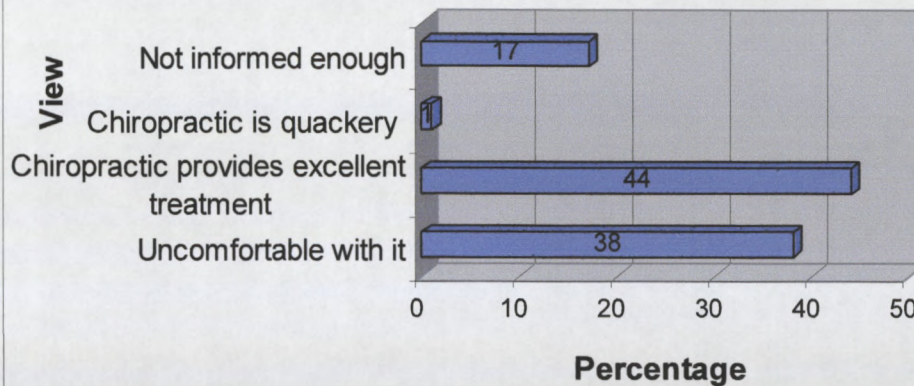
Chiropractors were considered to be skilled (para)medical practitioners by 80% of the sample (Fig. 11), however 38% of the respondents still felt uncomfortable with chiropractic (Fig.12), which demonstrates some inconsistency. One would presume that those physiotherapists who felt uncomfortable with chiropractors would not consider them to be skilled practitioners. There is a discrepancy here, which indicates that at least 18% of those who are uncomfortable with chiropractic still consider it to be a skilled profession. This is from the deduction that only 20% of respondents didn't think of chiropractic as skilled practitioners.

**Fig. 11 Do you consider chiropractors to be skilled para(medical) practitioners?**





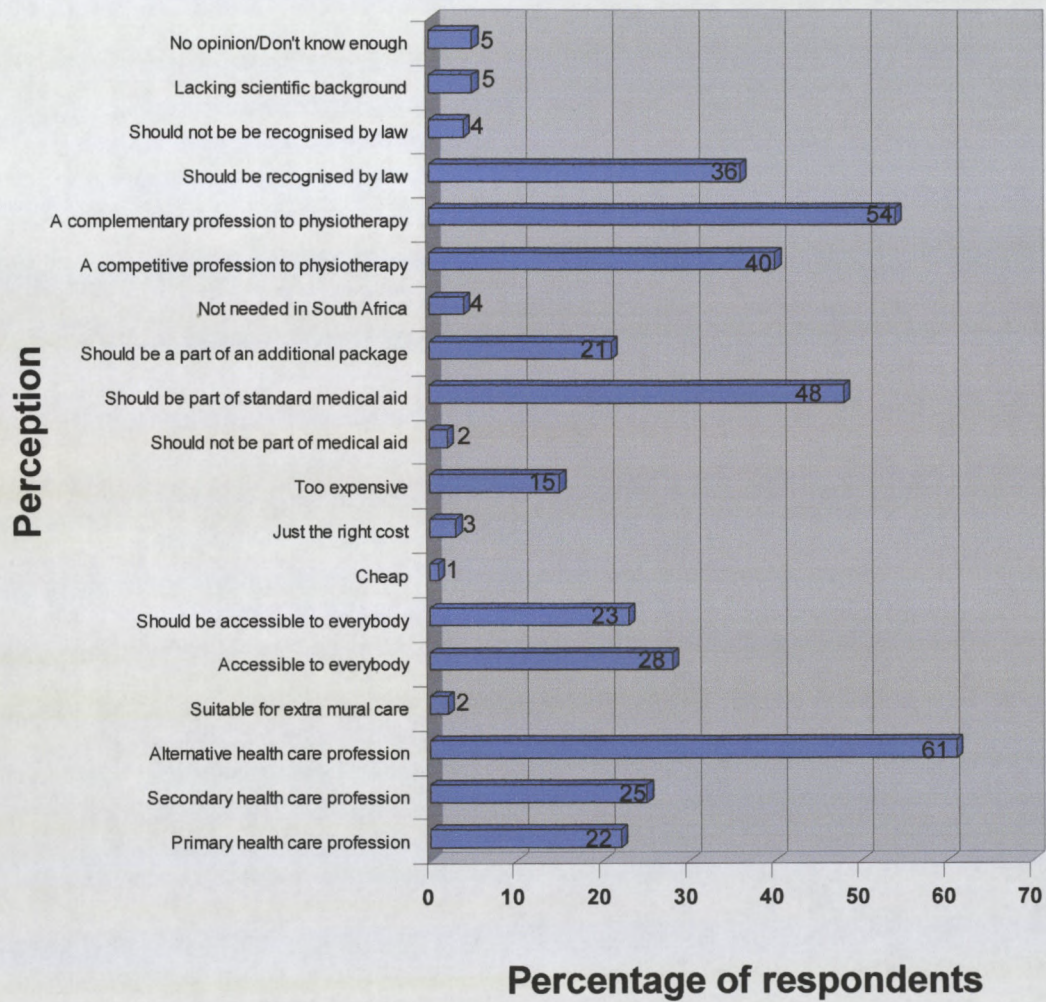
**Fig.12 Which of the following best describes your view of chiropractic?**



Part of the present problem may lie in the fact that the majority (61%) of respondents perceive chiropractic to be an alternative health care profession (Fig.13). According to Haldeman, (2002) this label has limitations of its own which restricts chiropractic from entering fully into mainstream healthcare. For at least a decade, chiropractors in South Africa have been striving to be seen as a primary health care profession and according to Sidley (1994) chiropractors in South Africa tend to see themselves as primary health care professionals. The Chiropractic Association of South Africa (2004/5) also confirms this. However, only 22% of the respondents believed chiropractic to be a primary health care profession. There was some inconsistency with this as 48% felt that chiropractic should be part of the standard medical aid, which traditionally has not been partial to funding alternative health care professions.

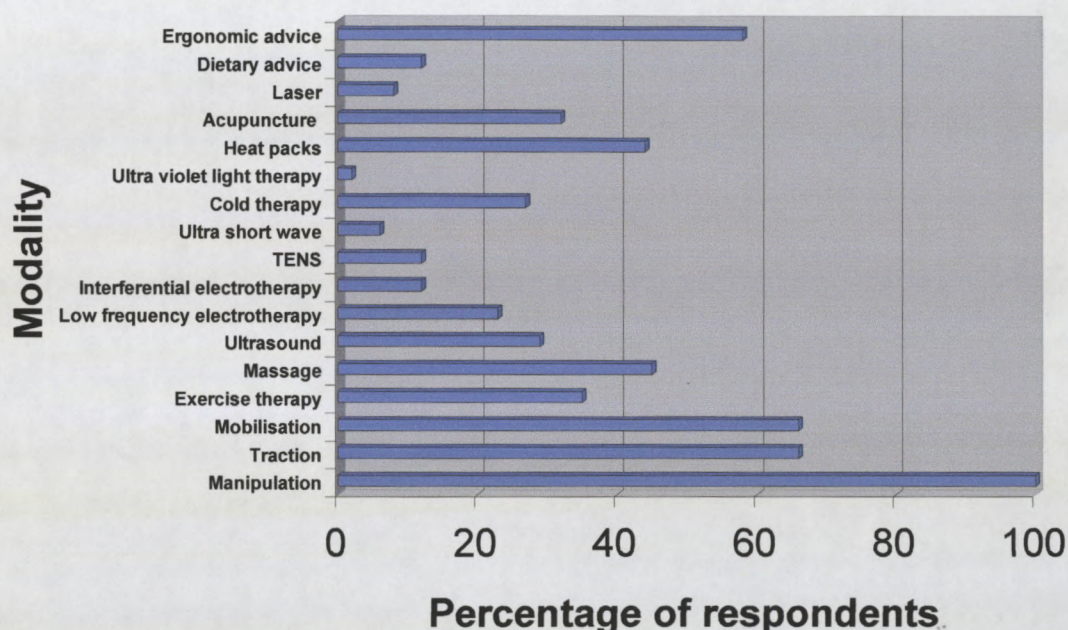


**Fig. 13 How do you perceive the chiropractic profession?**





**Fig. 14 What techniques/modalities do you expect a chiropractor to be able to use in the treatment of their patient?**



Physiotherapists see manipulation as a chiropractor's main modality (Fig. 14). Interestingly, over two thirds (Table 6) of the respondents manipulate their patients and the great majority (85%) of them has had some formal training (the definition of formal was determined by the respondent) in manipulation (Table 7) therefore using what was a traditionally chiropractic modality. Many of the respondents also acknowledged chiropractors use of what have in the past been traditionally physiotherapy modalities. However, when asked whether there was a sufficient difference between the professions to separate them (Table 8), the response was overwhelmingly positive (76%).

**Table 6**

**Do you practice any form of spinal or extra vertebral manipulation?**

<b>Response</b>	<b>Percentage of respondents</b>
Yes	68%
No	32%

**Table 7**

**Have you ever received any formal training in manipulation?**

<b>Response</b>	<b>Percentage of respondents</b>
Yes	85%
No	15%

**Table 8**

**Is there sufficient difference between physiotherapy and chiropractic to justify the existence of two separate profession?**

<b>Response</b>	<b>Percentage of respondents</b>
Yes	76%
No	4%
Don't Know	20%

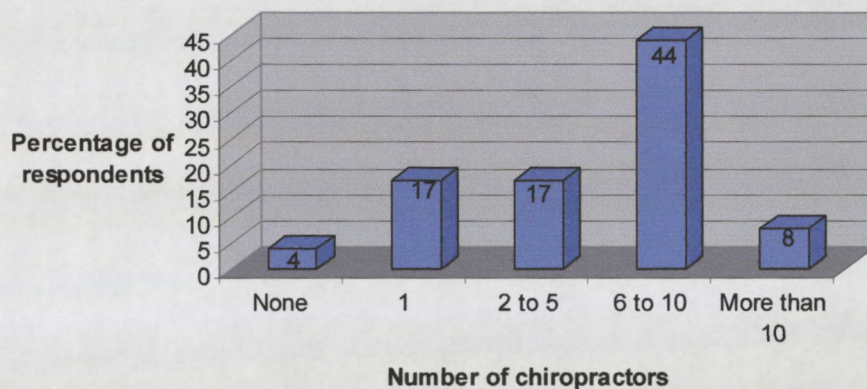
More (54%) physiotherapists believed chiropractic to be complementary to rather than competitive (40%) with physiotherapy (Fig.13). Also, only 4% of respondents felt that the chiropractic field was not needed in South Africa, indicating the large majority of respondents felt that there is a definite role in the South African health care team for chiropractic. It is important that the chiropractic profession now ensures that the role that they perceive themselves to be playing in health care in South Africa, is the same as that which other health care professionals view them to be filling. It is with this awareness of each other's professions that interprofessional relationships can develop.

When questioned about the number of chiropractors known to them in their area, 96% of the respondents said they knew of at least one (Fig. 15). However, when asked how many chiropractors they were acquainted with in

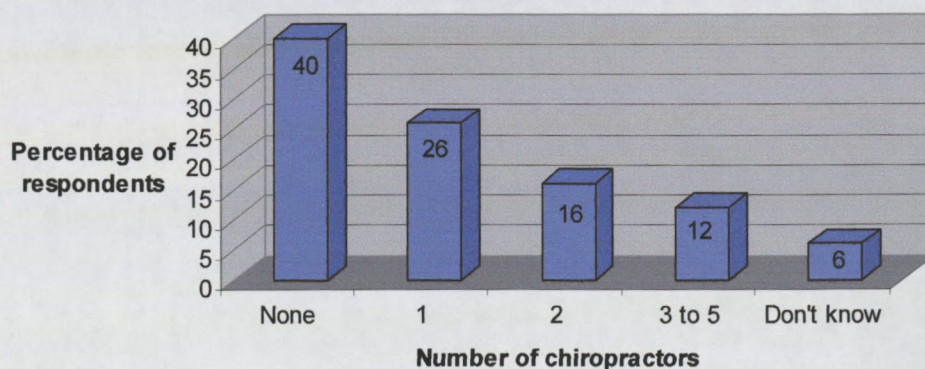


their area, 40% said none (Fig. 16). When questioned whether they had ever had contact with a chiropractor only 66% had ever had contact with one (Fig. 17). This indicates that there is a definite barrier in communication between the professions in South Africa at present. Also very few physiotherapists know how many chiropractors there are currently in South Africa. This reinforces the fact that there is a definite need for some kind of awareness drive on the part of the chiropractic profession to educate other professions as to what their profession is about.

**Fig. 15 How many chiropractors do you know of in your area?**

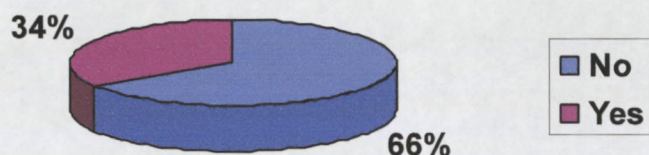


**Fig. 16 How many chiropractors are you acquainted with in your area?**

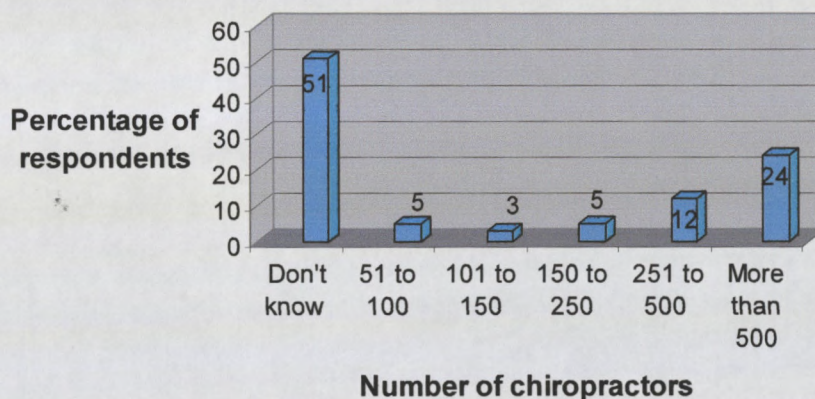




**Fig. 17 Have you ever had contact with a chiropractor?**



**Fig. 18 How many chiropractors so you think there are in South Africa?**



Many (17%) of the physiotherapists who responded felt insufficiently informed to comment on their views on chiropractic. However the majority of those who did comment (53%) said that chiropractic provides excellent treatment for some neuro-musculo-skeletal conditions (Fig. 12).

## **CHAPTER 5**

### **Conclusions and Recommendations**

The main conclusions that can be drawn from this survey are as follows:

1. In general respondents felt inadequately informed about chiropractic. South African physiotherapists do not feel as if they know enough about chiropractic and the vast majority of them would like to know more about the profession.
2. The vast majority of the respondents also believed that good co-operation between chiropractors and physiotherapists would be beneficial to both professions as well as their patients. However, when questioned about how good they considered co-operation and communication between chiropractors and physiotherapists to be, the large proportion of the respondents said that it was poor to non-existent. This indicates that some changes will need to be made in the near future to improve co-operation between the chiropractors and the physiotherapists, in order to benefit both professions as well as their respective patients.
3. There are many areas in which physiotherapists believe that co-operation between chiropractors and physiotherapists can occur. However regular patient referral between the two professions is not a popular trend at the moment given the responses of the questions.
4. When asked about different techniques / modalities used by chiropractors the leading response was manipulation, which is seen by physiotherapists as a chiropractor's main modality. Interestingly over two thirds of the respondents manipulate their patients and the great

majority of them have had some formal training in manipulation. However, when asked whether there was a sufficient difference between the professions to separate them, the overwhelming response was yes there is.

5. Very few physiotherapists know how many chiropractors there are in South Africa.
6. The majority of respondents perceived chiropractic to be an alternative health care profession and not a primary health care profession, which chiropractors tend to see themselves as. This once again just emphasizes a non-congruence of what chiropractors perceive themselves to be and what physiotherapists perceive chiropractors to be.
7. There are more physiotherapists who believe chiropractic to be complementary to physiotherapy, than those who believe it to be competitive to it.
8. Many of the physiotherapists who responded felt insufficiently informed enough to comment on their views on chiropractic. However the majority of those who did comment said that chiropractic provides excellent treatment for some neuro-musculo-skeletal conditions.

#### **Comparison to other studies:**

When one compares the results of this study to the similar study done by Langworthy and Smink in the Netherlands in 2000 there are some similarities and more interestingly some big differences.

The chiropractic profession was seen to be generally as a primary health care profession in the Netherlands as compared to South African physiotherapists which generally believed chiropractors to be alternative health care professionals. Chiropractic should be a part of the national health scheme was the major response from South African physiotherapists in this study; however in the Dutch study only 4 to 11

percent of respondents believed that chiropractic should be a part of the national health scheme in the Netherlands. The interesting fact of these responses is that health care schemes have been traditionally more accepting of primary health care professionals than alternative health care professionals, but the respondents from the Dutch study who believed that chiropractic was a primary health care profession felt that chiropractic should not be a part of the national health care scheme and in South Africa the respondents who mostly acknowledged that chiropractic should be a part of the national medical scheme believed chiropractic to be an alternative profession. This seems to indicate that the perceived role of chiropractic in world health care seems to be very varied and distorted at present and there is a need for the chiropractic profession to become consolidated and for other health care professionals to be educated as to what the chiropractic profession consists of, especially those such as physiotherapy which have a close link with chiropractic, treating many of the same conditions with many similar modalities.

In both studies a very limited knowledge of chiropractic amongst the respondents was reported and both studies noted a poor to non-existent state of communication and co-operation amongst chiropractors and physiotherapists. Despite of this closer links were welcomed by both sets of respondents and it was seen as beneficial to all parties concerned namely the practitioners and the patient.

#### **Concluding remarks:**

It was shown in this study, that many South African physiotherapists believe that there is a place for chiropractic in the South African health care team. However this is not the role, which the chiropractic profession necessarily perceive themselves to be filling. This may be based on inaccurate assumptions and in many cases incorrect perceptions on the part of physiotherapists of what chiropractic is and how chiropractors practice or an incongruent view from the chiropractic profession. This may be the result of the poor communication and co-operation between the two

professions, which was apparent from the study. Importantly though, without proper education as to what the chiropractic profession consists of; the perceptions of South African physiotherapists are unlikely to change and positive inroads into interprofessional relations are unlikely to be made. Therefore some sort of accurate awareness of the chiropractic profession needs to be attained.

**The following recommendations can be made from the study:**

1. Physiotherapists in South Africa need to be informed about the chiropractic profession, especially that pertaining to scope of practice and training, as well as many other areas, if there is to be a better understanding, co-operation and communication between the two professions. This may also in turn lead to more referrals occurring between chiropractors and physiotherapists.
2. Further studies need to be conducted, into how better communication and co-operation between chiropractors and physiotherapists can be reached, now that it has been discovered that it is poor and that improvement in this area will be beneficial to both professions as well as their patients.
3. As with many studies the sample size could be improved upon and should further similar studies be conducted it is recommended that a larger sample size be employed to ensure maximum representation. There are always other factors that must be considered in studies such as this that can skew the data collected, for example respondents taking part in the study, all may have done so because of a personal interest in the topic at hand, and the fact that they had already formulated an opinion on the topic. This may have led to a respondent bias and therefore a truer reflection would have been achieved if the response rate had been greater.

4. If this questionnaire is to be used again, the following improvements can be made: Question 18 reads:  
"What qualification does a chiropractic course lead to?" however this is not specific enough as in South Africa the end qualification is different to other areas in the world. So an improvement would be:  
"What qualification does a chiropractic course in South Africa lead to?"
5. A study into the perceptions and attitudes which South African chiropractors hold of physiotherapists is a very important follow up study which must be completed to ascertain both aspects of the communication channel and co-operation which seems to be occurring at present. Perhaps by doing this one can note areas which can be improved upon thus leading to a more co operative and enlightened health care team working together for the benefit of the patient.
6. One must take into account that the respondents which took part in the study may have only done so because they were interested in the topic at hand and had already formulated opinions on the subject. Therefore future studies should try and take steps to ensure a better response rate.



# **CHAPTER 6**

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# APPENDIX A : Questionnaire

## Part 1: Personal Information

PID No:

Please tick the appropriate box.

1. Are you:      Male ☐      Female ☐
  2. Which age bracket are you in?  
    <25              26-35              36-45              46-55              56-65              >65  
    ☐              ☐              ☐              ☐              ☐              ☐
  3. How many years have you been qualified as a physiotherapist?  
    <5              6-10              11-15              16-20              21-30              31-40              >40  
    ☐              ☐              ☐              ☐              ☐              ☐              ☐
  4. Which type of practice do you work in?  
    Private              Multidisciplinary              Hospital Inpatients              Outpatients  
    ☐              ☐              ☐              ☐
- If multidisciplinary, which other disciplines are involved in the practice? Please specify.
- .....
- .....
- .....
- .....
5. Within the practice you work in, are you:  
    The owner              Employee              Shareholder              Agency Worker  
    ☐              ☐              ☐              ☐
  6. Do you practice solo, duo, or in a group (>3) of Physiotherapists?  
    Solo-practice              Duo-practice              Group practice (>3)  
    ☐              ☐              ☐
  7. What type of area is the practice situated in?  
    Urban (>50,000) ☐      Suburban (25,000-50,000) ☐      Rural (<25,000) ☐

➤ Please indicate which province you are from:

Gauteng ☐    KwaZulu-Natal ☐    Northern Province ☐    Eastern Cape ☐    Western Cape ☐

Free State ☐    Mpumalanga ☐    Northern Cape ☐    North West Province ☐

Name of City or Town:.....

8. What qualifications did you have before starting your course in Physiotherapy?
- |                          |                          |                          |                          |                          |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Matric                   | Degree                   | Diploma                  | Medical Degree           | Paramedical Degree       |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Medical/paramedical propaedeutic ☐ Other (please specify) .....  
.....

If you had a medical degree, paramedical degree or propedeuse before you started your course in physiotherapy, can you please indicate the degree (PhD, MSc, BSc etc) and the medical or paramedical speciality (general practitioner, orthopaedic specialist, occupational/ergo therapist, etc) .....  
.....

9. Have you taken any postgraduate courses since you qualified?
- |                             |                              |                      |  |                             |
|-----------------------------|------------------------------|----------------------|--|-----------------------------|
| No <input type="checkbox"/> | Yes <input type="checkbox"/> | please specify ..... | completed Yes <input type="checkbox"/> | No <input type="checkbox"/> |
|                             |                              | .....                | completed Yes <input type="checkbox"/> | No <input type="checkbox"/> |
|                             |                              | .....                | completed Yes <input type="checkbox"/> | No <input type="checkbox"/> |

## Part 2: General Knowledge About Chiropractic

10. How would you describe your knowledge of chiropractic?
- ☐ never heard of it
- ☐ heard of it only
- ☐ know something about it
- ☐ quite familiar with it
11. Is chiropractic recognised by law in South Africa?
- Yes ☐ No ☐ Don't Know ☐
12. Is chiropractic funded by health care insurers in South Africa?
- Totally ☐ Partially ☐ No ☐ Don't Know ☐
13. How long has chiropractic existed as a profession in South Africa?
- <10 years ☐ 11-50 years ☐ 51-100 years ☐ >100 years ☐ Don't Know ☐
14. How long do you think it takes to train as a chiropractor?
- <1 year ☐ 2 years ☐ 3 years ☐ 4 years ☐ 5 years ☐ Don't Know ☐

15. What type of course do you think the chiropractors follow?  
 Weekend Course ☐ Part-time Course ☐ Full-Time Course ☐ Don't Know ☐
16. What level of education is required to enter a chiropractic course?  
 None ☐ Grade 10 ☐ Grade 12 (No exemption) ☐ Grade 12 (With exemption) ☐  
 Medical or paramedical education ☐  
 Medical or paramedical propedecuse ☐  
 Don't Know ☐
17. How long do you think chiropractors have to work under supervision in addition to time spent training?  
 Not at all ☐ 1 year ☐ 2 years ☐ 3 years ☐ Don't Know ☐
18. What qualification does a chiropractic course lead to?  
 No officially recognised qualification ..... ☐  
 DC (Doctor of Chiropractic) ..... ☐  
 BSc Human Sciences (Bachelor degree) ..... ☐  
 BSc Hons Human Sciences (BSc. Honours) ..... ☐  
 MSc Human Sciences/Chiropractic (Masters degree) ... ☐  
 MTech Masters in Technology (Chiropractic)..... ☐  
 Don't Know ..... ☐

### Part 3: Awareness of Chiropractic

19. Please specify how you first became aware of chiropractic?
- ☐ Media (radio, television, newspapers)
  - ☐ Scientific publication
  - ☐ Through a lecturer (please specify during which course this was)
  - ☐ Through a colleague
  - ☐ Through a patient
  - ☐ As a patient
  - ☐ Through promotional material from a chiropractor
  - ☐ Through personal contact with a chiropractor (letter, telephone conversation)
  - ☐ Lecture/seminar
  - ☐ Other (please specify)

20. Have you ever had contact with a chiropractor?

☐ No

☐ Yes

If Yes, how did this come about?

☐ Via another professional

☐ Via a patient

☐ As a patient

☐ Via social contact

☐ Other (please specify) .....  
.....

21. How many chiropractors do you think there are in South Africa?

0-50 ☐ 51-100 ☐ 101-150 ☐ 151-250 ☐ 251-500 ☐ >500 ☐ Don't Know ☐

22. How many chiropractors do you know of in your area?

None ☐ 1 ☐ 2 ☐ 3-5 ☐ 6-10 ☐ >10 ☐ Don't Know ☐

23. How many chiropractors are you acquainted with in your area?

None ☐ 1 ☐ 2 ☐ 3-5 ☐ 6-10 ☐ >10 ☐ Don't Know ☐

24. How well do you think chiropractors promote their profession?

Not at all ☐ Not enough ☐ Enough ☐ Too much ☐ Don't Know ☐

25. Do you think chiropractors promote their practices:

Not at all ☐ Not enough ☐ Enough ☐ Too much ☐ Don't Know ☐

26. Do you feel adequately informed about chiropractic?

Yes ☐ No ☐ Please specify .....  
.....  
.....

27. Would you like to know more about the chiropractic profession?

Yes ☐ No ☐

28. If you answered yes to 27 above, what would you like to know about chiropractic in order to gain a better understanding of the chiropractic profession?

.....

.....

.....

.....

29. How would you like to be informed about chiropractic?

- ☐ by research publications
- ☐ by the media/press
- ☐ by an informative lecture/seminar
- ☐ by a printed information package
- ☐ by personal contact by local chiropractor

#### Part 4: Perception of the Chiropractic Profession

30. How do you perceive the chiropractic profession (*more than one answer possible*)?

I think chiropractic (is):

- ☐ a primary health care service
- ☐ a secondary health care service
- ☐ an alternative health care profession
- ☐ suitable for extra mural care
- ☐ suitable for intramural care
- ☐ is accessible to everybody
- ☐ should be accessible to everybody
- ☐ cheap
- ☐ just the right cost
- ☐ too expensive
- ☐ should not be part of Medical Aid

- ☐ should be part of the standard Medical aid
- ☐ should be part of an additional package
- ☐ not needed in South Africa
- ☐ a competitive profession to physiotherapy
- ☐ a complementary profession to physiotherapy
- ☐ should be recognised by law
- ☐ should not be recognised by law
- ☐ lacking scientific background
- ☐ no opinion/do not know enough about it

31. What kind of procedures would you expect a chiropractor to perform in his/her assessment of a patient? *(more than one answer possible)*

- ☐ Vital signs (heart rate, blood pressure, respiration)
- ☐ Cardiovascular review
- ☐ Respiratory review
- ☐ Neurological exam:
  - ☐ - central nervous system review
  - ☐ - cranial nerve review
  - ☐ - peripheral NS review
- ☐ Orthopaedic exam
- ☐ Gastro-intestinal review/abdominal exam
- ☐ Genito-urinary review
- ☐ Past medical history
- ☐ Family history
- ☐ Social history
- ☐ Radiological exam
- ☐ Auscultation

32. Which techniques/modalities do you expect a chiropractor to be able to use in his/her treatment of a patient? *(more than one answer possible)*

- ☐ Manipulation
  - ☐ of the spine
  - ☐ of the extremities
- ☐ Traction
- ☐ Mobilisation

- ☐ Exercise therapy
- ☐ Massage
- ☐ Ultrasound
- ☐ Low frequency electrotherapy
- ☐ Interferential electrotherapy
- ☐ TENS
- ☐ Ultra short wave
- ☐ Cold therapy/ice therapy
- ☐ Ultraviolet light therapy
- ☐ Hot packs
- ☐ Acupuncture
- ☐ Laser
- ☐ Dietary advice
- ☐ Ergonomic advice

33. Chiropractic treatment could/should be considered in the treatment of the following complaints:

	Yes	Sometimes	No	Don't Know
Neck pain				
Low back pain				
Headaches				
Temperomandibular joint problems				
Sports injuries				
Joint/ligament sprains				
Muscle strains				
Hernia nucleus pulposus				
Chronic pain problems				
Post orthopaedic surgery rehabilitation				
Gastro-intestinal problems				
Psychological problems				



### Part 5: Communication/Co-operation

34. How good do you consider communication between physiotherapists and chiropractors to be?
- ☐ Non-existent      ☐ Poor      ☐ Moderate      ☐ Good      ☐ Very Good
35. How good do you consider cooperation between physiotherapists and chiropractors to be?
- ☐ Non-existent      ☐ Poor      ☐ Moderate      ☐ Good      ☐ Very Good
36. Do you think it would be beneficial to patients to improve communication between physiotherapists and chiropractors?
- Yes ☐      No ☐      Don't Know ☐
37. Have you ever referred a patient to a chiropractor?
- Never ☐      Once ☐      Occasionally ☐      Regularly ☐
- If appropriate, please specify the approximate number of patients per month .....
38. Has a chiropractor ever referred a patient to you?
- Never ☐      Once ☐      Occasionally ☐      Regularly ☐
- If appropriate, please specify the approximate number of patients per month .....
39. How would you like to have feedback on a patient if you referred a patient to a chiropractor?
- ☐ None needed – I do not consider this necessary
- ☐ Verbally – direct or via telephone
- ☐ By letter
40. How would you yourself give feedback about a patient referred to you by a chiropractor?
- ☐ Not at all – I do not consider this necessary
- ☐ Verbally – direct or via telephone
- ☐ By letter

41. If you refer a patient to a chiropractor and the case remains unresolved after treatment by the chiropractor, what would you expect the chiropractor to do?
- ☐ Refer the patient back to you
  - ☐ Refer the patient back to the general practitioner
  - ☐ Decide further action together
42. If a chiropractor refers a patient to you and the case remains unresolved after your treatment, what would you do?
- ☐ Refer the patient back to the chiropractor
  - ☐ Refer the patient back to the general practitioner
  - ☐ Decide further action together
43. Do you think co-operation between physiotherapists and chiropractors is beneficial for:
- ☐ The patient
  - ☐ Physiotherapy
  - ☐ Chiropractic
  - ☐ All the above parties
44. What do you think the potential areas of co-operation are between physiotherapists and chiropractors? Treatment of:
- ☐ Spinal problems
  - ☐ Sacro-iliac problems
  - ☐ Sports injuries
  - ☐ Acute pain relief
  - ☐ Chronic pain relief
  - ☐ Functional postural problems
  - ☐ Structural postural problems
  - ☐ Orthopaedic rehabilitation
  - ☐ Neurological rehabilitation
  - ☐ Muscle balance problems
  - ☐ Other areas
  - ☐ None

If you know of other potential areas of cooperation, please specify: .....

.....  
.....  
.....

45. Do you think chiropractors are skilled (para)medical practitioners?

☐ Yes ☐ No ☐ Don't Know

46. Is there sufficient difference between Chiropractic and Physiotherapy to justify the existence of two separate professions?

☐ Yes ☐ No ☐ Don't Know

47. Do you practice any form of spinal or extra vertebral manipulation?

☐ Yes ☐ No

If yes, for which types of conditions do you use manipulation and what form does this take?

.....

.....

.....

.....

48. Have you ever received any formal training in manipulation?

Yes ☐ No ☐

49. If you answered no, would you like to receive formal training in spinal manipulation?

Yes ☐ No ☐

50. Which one of the following best reflects your view on chiropractic? (Please tick one box only)

I am uncomfortable with it but it is effective for some patients	<input type="checkbox"/>
Chiropractic provides excellent treatment for some neuro-musculo-skeletal conditions.	<input type="checkbox"/>
Chiropractic is quackery and does more harm than good.	<input type="checkbox"/>
Not informed enough to comment.	<input type="checkbox"/>

<p>We would like to thank you very much for your co-operation! The results will be treated confidentially.</p>
--

Questionnaire based on Study done by: RD Smink (BSc) J. Langworthy (MPhil)

# **APPENDIX B:**

## **Letter of information**



**D U R B A N**  
**INSTITUTE of**  
**TECHNOLOGY**

Dear Physiotherapist,

I am a student currently pursuing a qualification at the Durban Institute of Technology.

### **Study Title:**

A perceptual and attitudinal study of South African physiotherapists of the Chiropractic Profession.

### **Background to study:**

The health care system in South Africa is undergoing changes at the present. Some of the important issues under the spotlight at the moment include a shortage of resources, the high costs of health care, and a lack of interprofessional cooperation.

At present, very little quantifiable evidence on physiotherapist's perceptions of and attitudes towards the chiropractic profession exists, and as yet, no studies have been carried out in South Africa.

It is therefore the intention of the researcher to determine the current perceptions and attitudes of South African physiotherapists on the chiropractic profession.

### **Objective of Study:**

The data obtained from the attached questionnaire will allow for further assessment of the role of the interprofessional relationship between chiropractors and physiotherapists in the South African health care system. The questions will be concerned with your views of chiropractic, as well as the effectiveness of interprofessional relations and how they can be improved. The questionnaire will only take a few minutes to complete, as most of the questions require you to tick or circle the appropriate answer. There are only a few short written responses that are required.

### **Confidentiality:**

As with all surveys, the information you furnish will be treated in the utmost confidence. Please return the questionnaire in the stamped addressed envelope included for your convenience. As with all surveys, the information, which you furnish, will be treated in the utmost confidence. A neutral party (Faculty of Health Officer) at the Durban Institute of Technology, will receive the questionnaire and code them before returning them to the researcher. Thus the researcher will never have access to the identities of the recipients. Also the results of the study will be sent to you, as soon as they are available, for your perusal and comments. Also you are free to withdraw from the study at any stage.

Your time, opinion, and assistance with this project is invaluable and greatly appreciated.

Yours sincerely,

.....  
Samuel Hunter  
Research Student

.....  
Dr. Charmaine Korporaal  
Supervisor



## **APPENDIX C**

### **RESULTS:**

Overall 210 questionnaires were returned out of the 580 which were distributed to a population size of 1186 (2002) meeting the inclusion criteria stipulated by the researcher.

Of the returnees, however, only 177 met the inclusion criteria

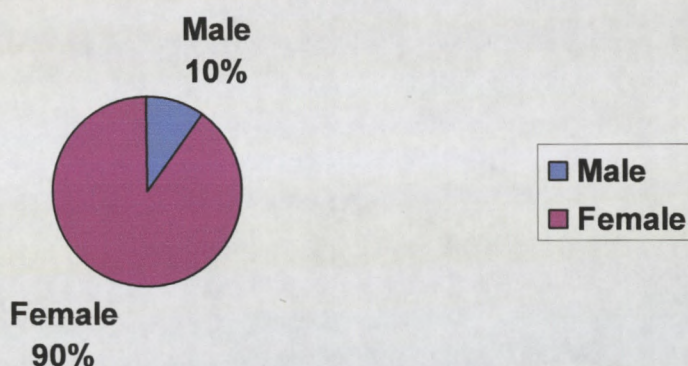
Question 1:

Are you male or female?

Of the respondents there were 17 males 160 females

Constituting 10% of total replies Male and the remainder (90%) female.

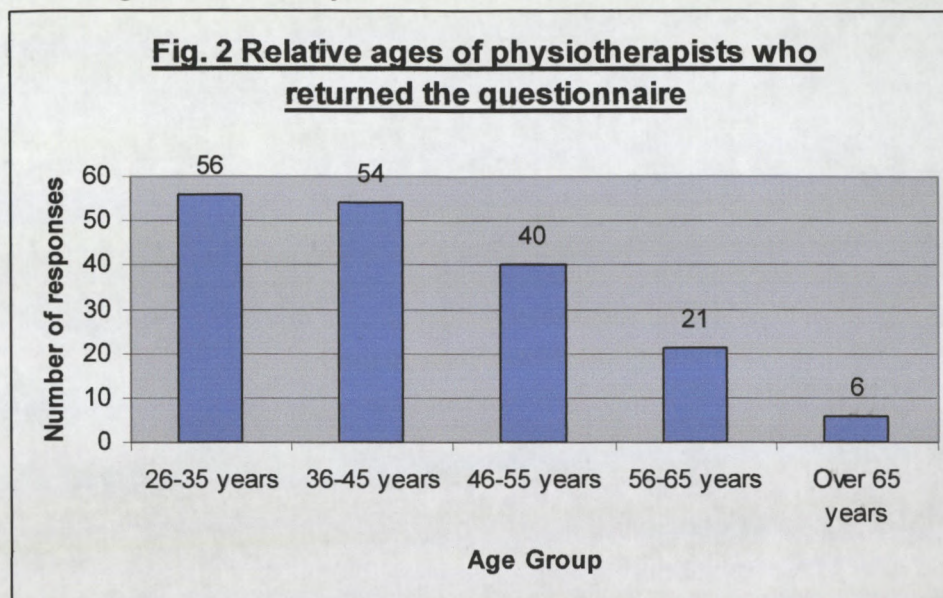
**Fig. 3 Are you male or female?**





Question 2:

Which age bracket are you in?



between ages 26-35 years there were 56 respondents  
between the ages of 36-45 there were 54 respondents  
between the ages of 46-55 there were 40 respondents  
between the ages of 5-65 there were 24 respondents  
and there were 6 respondents over the age of 65 years.

Question 3:

How many years have you been qualified as a physiotherapist?

Four of the respondents had been in practice less than 5 years.

Twenty eight of the respondents had been practicing between 6 and 10 years.

Thirty eight had been practicing 11 to 15 years.

Twenty had been practicing between 21 and 30 years.

Forty nine had been in practice 21 to 30 years.

Twenty five had been in practice between 31 and 40 years and

13 of the respondents had been in practice longer than 40 years.

Question 4:

Which type of practice do you work in?

One hundred and seventy respondents replied that they worked in private practice, 10 of the respondents worked in a multidiscipline practice and another 4 worked with out patients in a hospital setting. More than one answer was possible for this question.

Of those in Multidisciplinary practice the following other types of practitioners were involved:

GP's (n=4)

Biokineticist (n=8)

Occupational therapist (n=5)

Sports Physician (n=4)

Speech and Hearing (n=2)

Podiatry (n=4)

Chiropractic (n=2)

Pathologist (n=1)

Radiology (n=2)

Dietician (n=1)

Orthopedic surgeon (n=2)

Psychologist (n=1)

Question 5:

Within the practice you work in, are you: the owner; employee; shareholder or agency worker?

Eighty seven percent of the respondents were the owners of their own practices. 3% were shareholders and the remaining 10% of the respondents were employees.

Question 6:

Do you practice solo; duo; or in a group of physiotherapists?

Ninety four of the respondents worked solo whilst 35 worked in a group setting and another 48 worked with a partner in a duo setting.



### Question 7

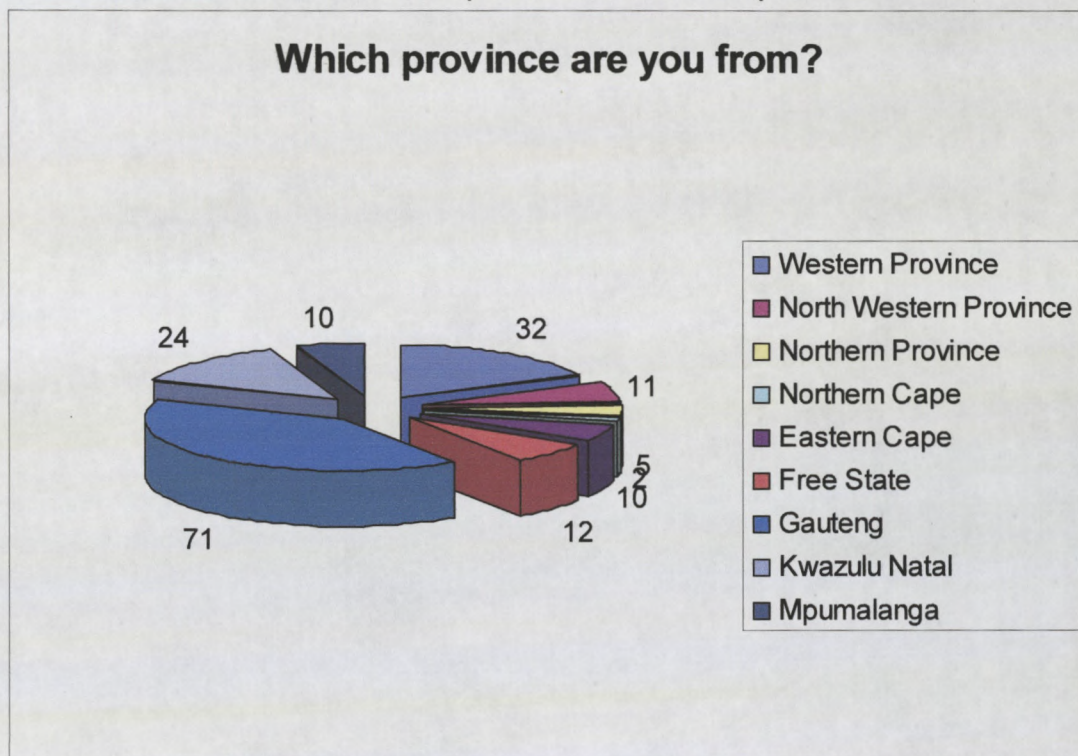
Do you practice in a rural; urban or suburban setting?

Fifty percent (50%) of the physiotherapists that replied practiced in an urban setting.

Nine percent (9%) practiced in a rural region and forty one (41%) percent practiced in a suburban setting.

Please indicate what province you are from?

Pie chart indicates number of respondents from each province.



From Western Province (n=32) there were respondents from:

Cape Town	15
Stellenbosch	4
Worcester	1
Somerset West	2
Durbanville	1
Knysna	1
Belville	1
George	2
Macassar	1
Mossel Bay	1
Milnerton	1
Malmesbury	1



From North West Province (n=11) there were respondents from:

Rustenburg	4
Mafikeng	2
Klerksdorp	2
Brits	1
Fochville	2

From Northern Province (n=5) there were respondents from:

Pietersburg	2
Ellisras	1
2 not specified	

From the Northern Cape (n=2) there were respondents from:

Kimberley	2
-----------	---

From Mpumalanga (n=10) there were respondents from:

Sabie	1
Middelburg	3
Hazyview	2
Secunda	1
Mickelburg	1
Lydenburg	2

From KwaZulu Natal (n=24) there were respondents from:

Durban	9
Stanger	2
Hillcrest	2
Kloof	1
Howick	1
Pinetown	2
Pietermaritzburg	2
Escourt	1
Margate	1
Richards Bay	2
Scottburgh	1

From Gauteng (n=71) there were respondents from:

Johannesburg	37
Springs	1
Sandton	2
Pretoria	16
Roodepoort	1
Randburg	1
Northcliff	1
Midrand	1
Edenvale	1
East Rand	1
Craighall	2

Florida	1
Centurion	1
Carletonville	1
Bryanston	1
Boksburg	2
Benoni	1
Bedfordview	1

From the Free State (n=12) there were respondents from

Bloemfontein	6
Kroonstad	1
Welkom	3
Bethlehem	2

From the Eastern Cape (n=10) there were respondents from

Despatch	1
East London	4
Port Elizabeth	4
Boesmans river	1

Question 8:

What qualification did you have before starting your course in physiotherapy?

The vast majority (151) of respondents reported having only finished matric before starting their physiotherapy course.

The remainder of the respondents reported that a degree (16); a diploma (3) or some form of other qualification (7) had been completed prior to beginning on their physiotherapy course.

Of the other qualifications present there were UK A levels (2); PhD qualifications earned by 2 of the respondents and Zimbabwe O Levels which had been completed.

Question 9:

Forty five (25%) of respondents said that they had not taken any postgraduate courses since they qualified. The remaining 132 (75%) respondents had completed various postgraduate studies and of those the most common of these postgraduate studies were in:

Manipulation (n=55)
Dry Needling (n=19)
Acupuncture (n=13)
MSc. (n=8)
Sports Management (n=4)
Pharmacology (n=3)

Question 10:

How would you describe your knowledge of chiropractic?

<b>Knowledge of chiropractic</b>	<b>No. of Respondents</b>
Never heard of it	0
Heard of it only	8
Know something about it	90
Quite familiar with it	79

Question 11

Is Chiropractic recognized by law?

95% (168) of the respondents said it was,  
1 % (2) respondents said it wasn't  
and 4% (7) didn't know

Question 12:

Is Chiropractic funded by the health care insurers in SA?

19% (34) of respondents said totally  
52% (92) respondents said partially  
7% (12) of the respondents said no  
and 22% (39) of the respondents didn't know

Question 13:

How long has chiropractic existed as a profession in SA?

5% (9) said less than 10 years  
41% (74) respondents said 11 years to 50 years  
22% (39) of the respondents said 51 to 100 years  
1% (2) respondents said longer than 100 years  
and the remainder 31% (55) respondents didn't know.

Question 14

How long does it take to train as a chiropractor?

5% (9) said three years  
12% (21) said 4 years  
70% (124) said 5 years  
13% (23) said they didn't know

Question 15:

What type of course do you think chiropractors follow?

98% (174) said full time  
2% (3) said they didn't know

Question 16:

What level of education is required to enter a chiropractic course?

7% (12) Don't know

3% (5) say Grade 10

25% (44) say Grade 12

65% (115) say Grade 12 with exemption

Question 17:

How long do you think chiropractors have to work under supervision in addition to time spent training?

6% (11) say not at all

37% (65) say 1 year

13% (23) say 2 years

2% (5) say 3 years

and 42% (57) respondents don't know

Question 18:

What qualification does a chiropractor course lead to?

3% (5) respondents said a BSc degree

3% (5) respondents said a BSc Honours

54% (96) of respondents said DC

23% (41) of respondents said a Mtech

3% (5) respondents said MSc

and 22% (39) said they didn't know

Question 19:

Please specify how you first became aware of chiropractic?

37 respondents said they first heard of chiropractic through the media.

5 respondents said they first heard about chiropractic through scientific publications

27 said from a lecturer

16 said from a colleague

76 said through a patient

8 said as a patient they had first found out about chiropractic

9 said through personal contact

12 through a seminar or lecture

Question 20

Have you ever been in contact with a chiropractor?

66% (117) said yes they had

and 34% (60) said that they had not been in contact with a chiropractor.

Of the ones that had been in contact with a chiropractor the follow was noted:

7% (12) of them said it was via another profession that they had contact with a chiropractor

20% (35) of them said it was via a patient

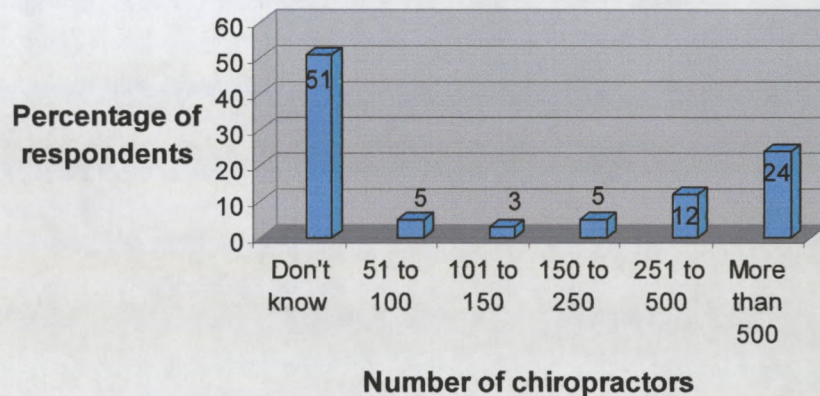
#### Question 21

How many chiropractors do you think there are in South Africa?

51% (90) of the respondents did not know how many chiropractors there are in South Africa. 24 % (42) respondents thought that there is more than 500 chiropractors in South Africa. 12% (23) said that there were between 251 and 500.

5% (9) said that there were between 51 and 100. 5% (8) said that there were between 151 and 200. 3% thought that there were between 101 and 150.

**Fig. 18 How many chiropractors so you think there are in South Africa?**



#### Question 22

How many chiropractors do you know of in your area?

4% (7) respondents replied none.

17% (30) respondents replied 1.

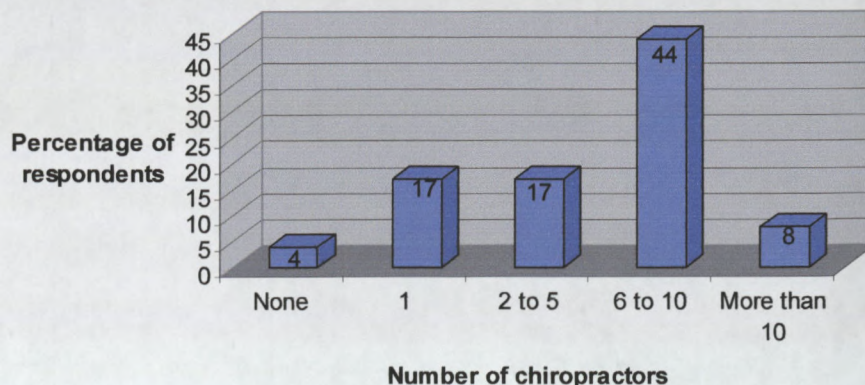
17% (30) respondents replied 2.

44% (77) respondents replied 3 to 5.

10% (18) respondents replied 6 to 10

and 8% (15) said they knew more than 10 chiropractors in their area.

**Fig. 15 How many chiropractors do you know of in your area?**





Question 23

How many chiropractors are you acquainted with in your area?

40% (70) of respondents replied none.

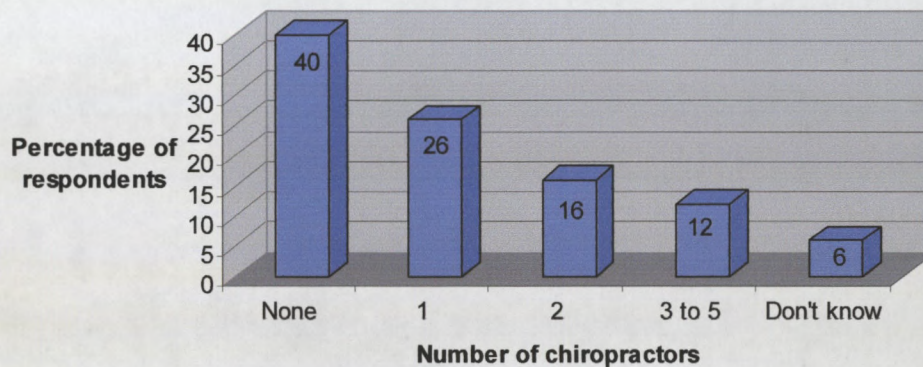
26% (46) of respondents said one.

16% (29) of respondents said 2.

12 % (22) of respondents said between 3 and 5

and 6% (10) said that they didn't know

**Fig. 16 How many chiropractors are you acquainted with in your area?**



Question 24

How well do chiropractors promote their profession?

5% (9) of respondents said not at all

21% (37) of respondents said not enough

43% (77) of respondents said enough

6% (11) of respondents said too much

and 25% (43) of respondents said that they didn't know

Question 25

Do you think that chiropractors promote their practices?

6% (11) respondents said not at all

15% (26) respondents said not enough

46% (82) respondents said enough

5% (8) said too much

and 28% (50) said that they don't know

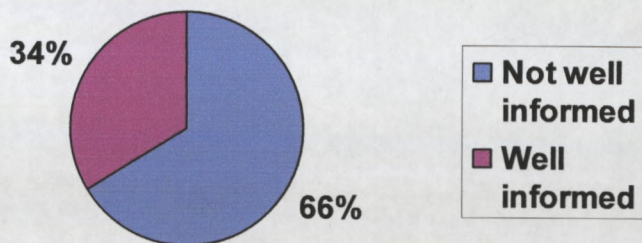


Question 26

Do you feel adequately informed about chiropractic?

34% (59) felt that they were adequately informed about chiropractic and 66% (118) said that they were not well informed.

**Fig. 4 Do you feel adequately informed about chiropractic?**



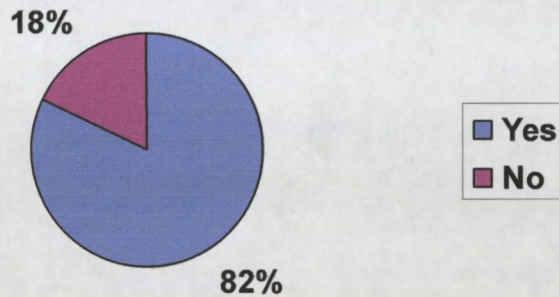


#### Question 27

Would you like to know more about the chiropractic profession?

82% (145) of respondents said that they would like to know more about the chiropractic profession with the remaining 18% (32) respondents saying that they would not.

**Fig. 5 Would you like to know more about chiropractic?**



#### Question 28

Of those who stated that they would like to know more about chiropractors the following answers were given when asked what specifically they would like to know more about:

The chiropractors scope of practice	n= 10
The details of the chiropractor syllabus and the course outline	n= 5
The treatment protocol used by chiropractors	n= 6
How does chiropractic differ from physiotherapy	n= 1
The rationale for different treatments for different conditions	n= 1
How much research is going on in the chiropractic field	n= 1
Which professions chiropractors consider to be part of their team in promoting patients well being	n= 1
Do chiropractors use manipulation for organic disease?	n= 2
What the difference is between "straight" and "mixed" chiropractic is	n= 1
Conditions which have shown favorable results to chiropractic	n= 2
How chiropractors come to a diagnosis when treating a patient	n= 3
Is any other treatments used by chiropractors other than manipulation	n= 3
Why are chiropractors considered doctors?	n= 1
What are the latest developments in the chiropractic profession	n= 2
Why are chiropractor's loathe to communicate?	n= 1



Question 29

How would you like to be informed about chiropractic?

(More than one answer was possible)

32% of the respondents replied that they would like to be informed about chiropractic via research publications.

3% said by the media/press

41% said by an informative lecture/seminar

43% said by a printed information package

and 25% said by personal contact by a local chiropractor.

Question 30

How do you perceive the chiropractic profession (more than one answer possible) I think chiropractic (is):

22% a primary health care service

25% a secondary health care service

61% an alternative health care profession

2% suitable for extra mural care

0 suitable for intramural care

28% is accessible to everybody

23% should be accessible to everybody

1% (1)cheap

3% just the right cost

15% too expensive

2% should not be part of Medical Aid

48% should be part of the standard Medical aid

21% should be part of an additional package

4% not needed in South Africa

40% a competitive profession to physiotherapy

54% a complementary profession to physiotherapy

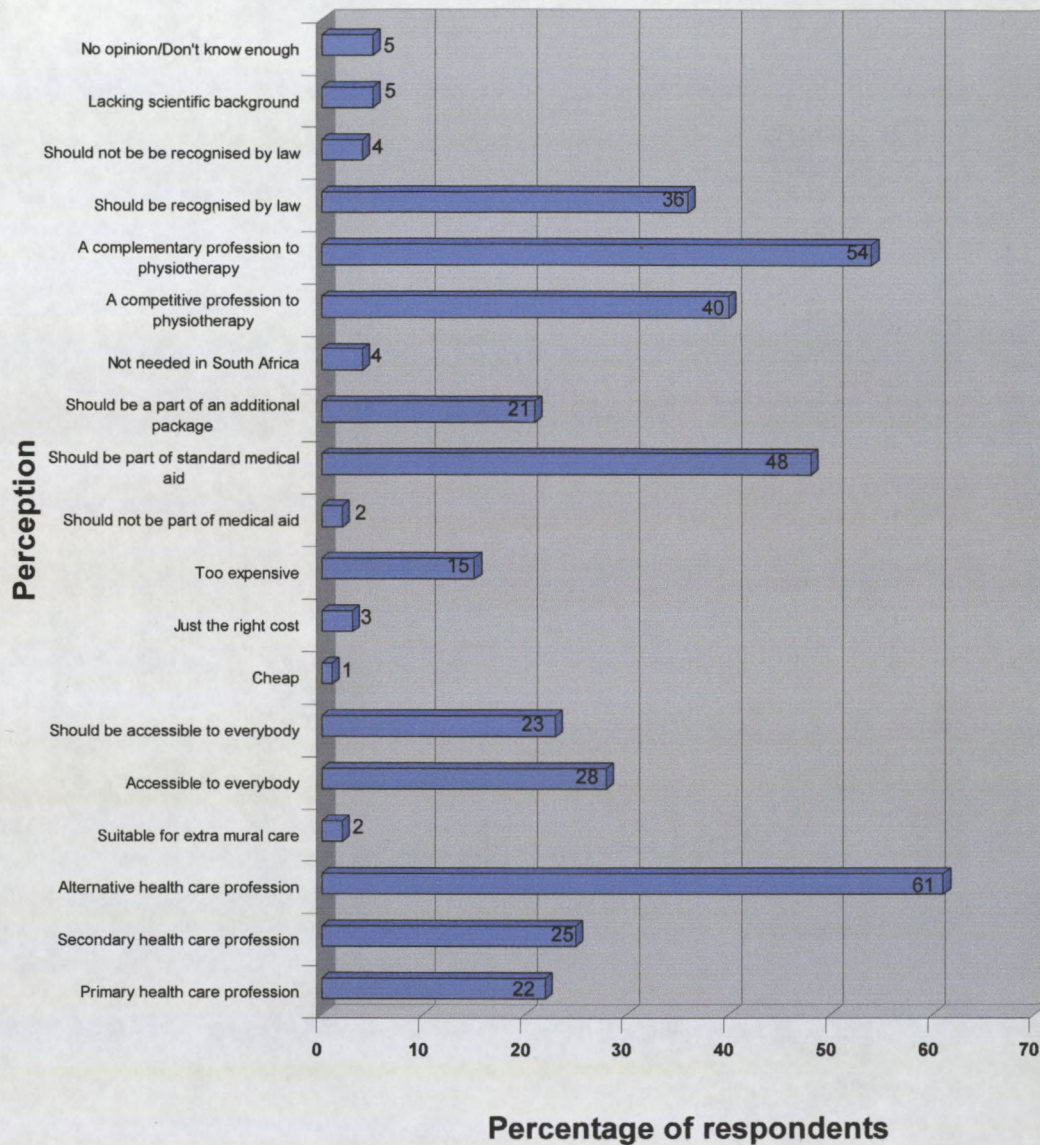
36% should be recognised by law

4% should not be recognised by law

5% lacking scientific background

5% no opinion/do not know enough about it

**Fig. 13 How do you perceive the chiropractic profession?**



Question 31

What kind of procedure would you expect a chiropractor to perform in his/her assessment of a patient? (More than one answer possible)

<u>% respondents</u>	<u>Procedure</u>
19%	Vital signs (heart rate, blood pressure, respiration)
8%	Cardiovascular review
5%	Respiratory review
96%	Neurological exam:
92%	Orthopaedic exam
4%	Gastro-intestinal review/abdominal exam
3%	Genito-urinary review
90%	Past medical history
77%	Family history
64%	Social history
75%	Radiological exam
6%	Auscultation

Question 32

What techniques/modalities do you expect a chiropractor to be able to use in his/her treatment of a patient? (more than one answer possible).

Modality/Technique	Percentage of respondents
Manipulation	100%
Manipulation of the spine	100%
Manipulation of extremities	97%
Traction	66%
Mobilisation	66%
Exercise therapy	35%
Massage	45%
Ultrasound	29%
Low frequency electrotherapy	23%
Interferential electrotherapy	12%
TENS	12%
Ultra short wave	6%
Cold/ice therapy	27%
Ultraviolet light therapy	2%
Hot packs	44%
Acupuncture	32%
Laser	8%
Dietary advice	12%
Ergonomic advice	58%

Question 33

Chiropractic treatment could/should be considered in the treatment of the following complaints: (Results demonstrated as percentage of respondents)

<b><u>Complaint</u></b>	<b><u>Yes</u></b>	<b><u>Sometimes</u></b>	<b><u>No</u></b>	<b><u>Don't know</u></b>
Neck Pain	61%	34%	3%	2%
Lower back pain	63%	34%	1%	2%
Headaches	59%	34%	3%	4%
Temporomandibular joint problems	35%	8%	8%	49%
Sports injuries	24%	37%	24%	15%
Joint/ligament sprains	20%	26%	30%	24%
Muscle strains	16%	27%	33%	24%
Herniated nucleus pulposus	24%	17%	27%	32%
Chronic pain problems	40%	28%	15%	17%
Psychological problems	2%	17%	37%	44%
Gastro-intestinal problems	4%	14%	41%	31%
Post orthopaedic surgery rehabilitation	10%	18%	44%	28%



Question 34

How good do you consider communication between physiotherapists and chiropractors to be?

22% (39) of the respondents believed it to be non-existent

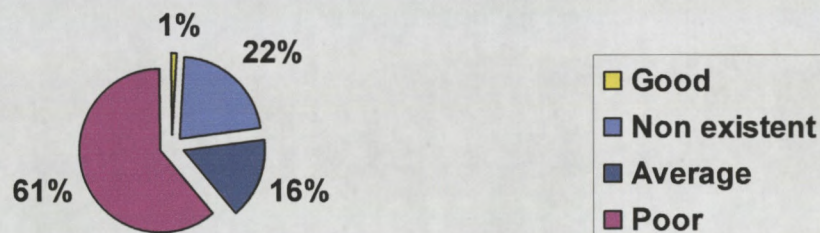
61% (108) of the respondents said it was poor

16% (29) of the respondents said that it was moderate

1% (2) of the respondents said that it was good

and none of the respondents considered it to be very good

**Fig. 8 How good do you consider the communication between physiotherapists and chiropractors to be?**



Question 35

How good do you consider co-operation between physiotherapists and chiropractors to be?

14% (24) of the respondents considered it to be non-existent

62% (110) of the respondents said that it was poor

14% (24) responded that it was moderate

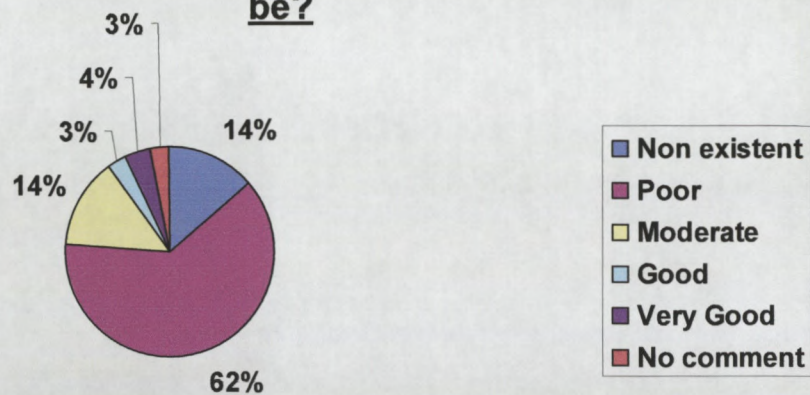
3% (5) responded that it was good

4% (7) responded that it was very good

and the remaining 3% had no response



**Fig. 7 How good do you consider co-operation between physiotherapists and chiropractors to be?**



**Question 36**

Do you think it would be beneficial to patients to improve communication between physiotherapists and chiropractors?

94% (165) of the respondents thought it would be beneficial to patients

3%(6) of the respondents thought it would not be beneficial to patients.

3% (6) of the respondents did not know

**Question 37**

Have you ever referred a patient to a chiropractor?

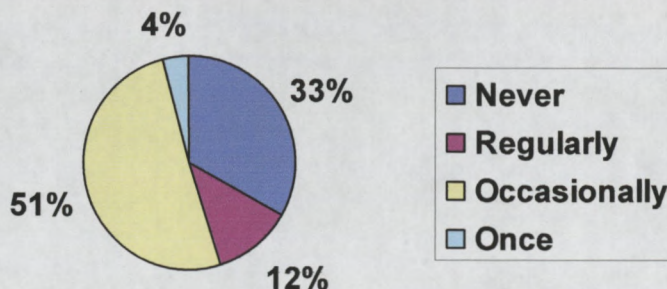
33% (58) said never

4% (7) said once they had referred a patient to a chiropractor

51% (90) said that they had referred occasionally

12% (22) said that they did so on a regular basis

**Fig.9 Have you ever referred a patient to a chiropractor?**





Question 38

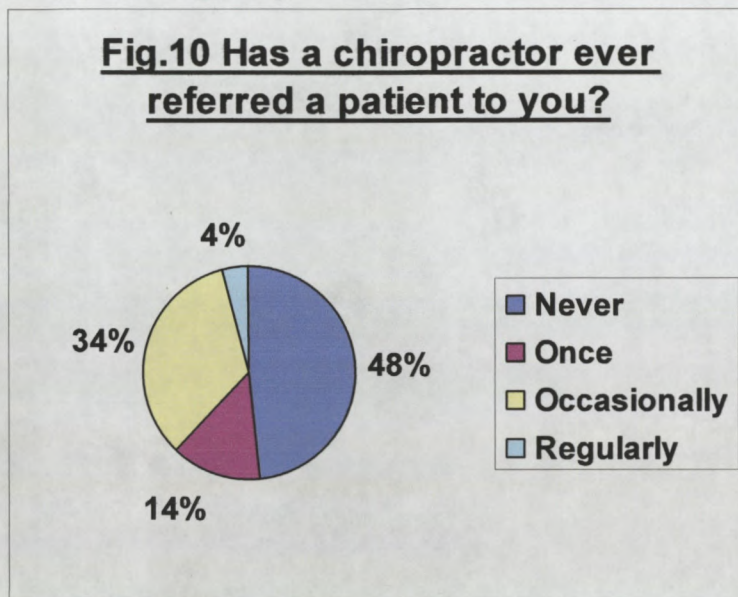
Has a chiropractor ever referred a patient to you?

48% (86) replied never.

14% (24) replied once

34% (59) said occasionally

4% (8) said regularly



Question 39

How would you like to have feedback on a patient if you referred a patient to a chiropractor?

1% (2) of the respondents said that none was needed.

32% (56) of the respondents said that a letter would be preferable.

40% (71) of the respondents said that verbal feedback would be preferred.

And 27% (48) of the respondents said that both verbal feedback and a letter would be preferable.

Question 40

How would you yourself give feedback about a patient referred to you by a chiropractor?

0% said that they would give no feedback

32% (56) of the respondents said that they would give a letter as feedback

47% (83) of the respondents said that they would give verbal feedback.

And 21% (38) of the respondents said that they would give both verbal and written feedback.

Question 41

If you refer a patient to a chiropractor and the case remains unresolved after treatment by the chiropractor, what would you expect the chiropractor to do? 20% (35) respondents said that they would expect the chiropractor to refer the patient back to you.

5% (9) respondents said that they would expect the chiropractor to refer the patient back to a general practitioner.

The remaining 75% (133) respondents said that they would want to decide further action together.



#### Question 42

If a chiropractor refers a patient to you and the case remains unresolved after your treatment, what would you do?

10% (18) respondents said that they would refer the patient back to the chiropractor.

10% (18) respondents said that they would refer the patient back to a general practitioner.

And 80% (141) respondents said that they would decide further action together.

#### Question 43

Do you think that co-operation between physiotherapists and chiropractors is beneficial for: the patient; physiotherapy; chiropractic; all parties concerned?

11% (19) respondents said that it was beneficial for the patient.

88% (156) respondents said that it was beneficial for all the above parties.

And 1% (2) did not respond.

#### Question 44

What do you think the potential areas of co-operation are between

physiotherapists and chiropractors? Treatment of:

<u>%</u>	<u>(no.) respondents</u>	<u>Potential Area of co-operation</u>
97%	(172)	Spinal problems
95%	(168)	Sacro-iliac problems
28%	(49)	Sports injuries
53%	(94)	Acute pain relief
67%	(119)	Chronic pain relief
50%	(88)	Functional postural problems
52%	(92)	Structural postural problems
42%	(74)	Orthopaedic rehabilitation
41%	(73)	Neurological rehabilitation
26%	(46)	Muscle balance problems
27%	(48)	Other areas
3%	(5)	None

If you know of other potential areas of cooperation, please specify:

Of the 6 responses to this question:

4 said that gastrointestinal complaints such as colic was another potential area of co-operation.

1 said that the treatment of animals was another area.

And 1 other said in the area of manipulation particularly chiropractors and physiotherapists should co-operate.

#### Question 45

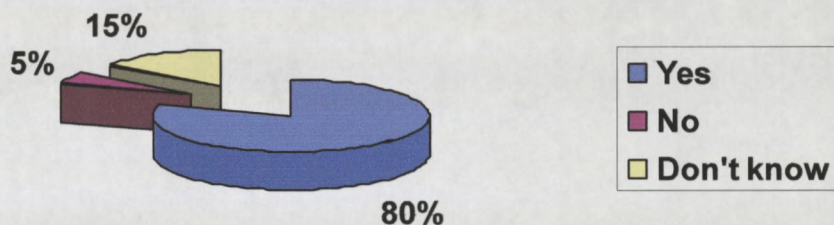
Do you think that chiropractors are skilled (para)medical practitioners?

80% (141) said yes

5% (9) said no

15% (27) said that they don't know

**Fig. 11 Do you consider chiropractors to be skilled para(medical) practitioners?**



#### Question 46

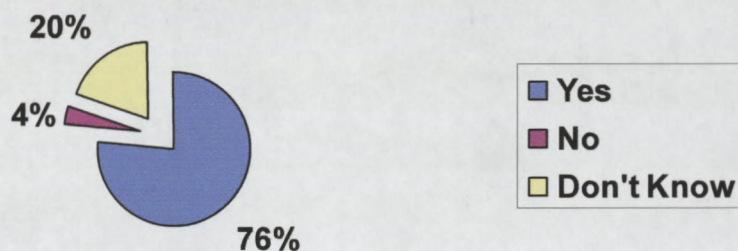
Is there sufficient difference between chiropractic and physiotherapy to justify the existence of two separate professions?

76% (135) said yes

4% (7) said no

20% (35) said they don't know

**Is there sufficient difference between physiotherapy and chiropractic to justify two separate professions?**



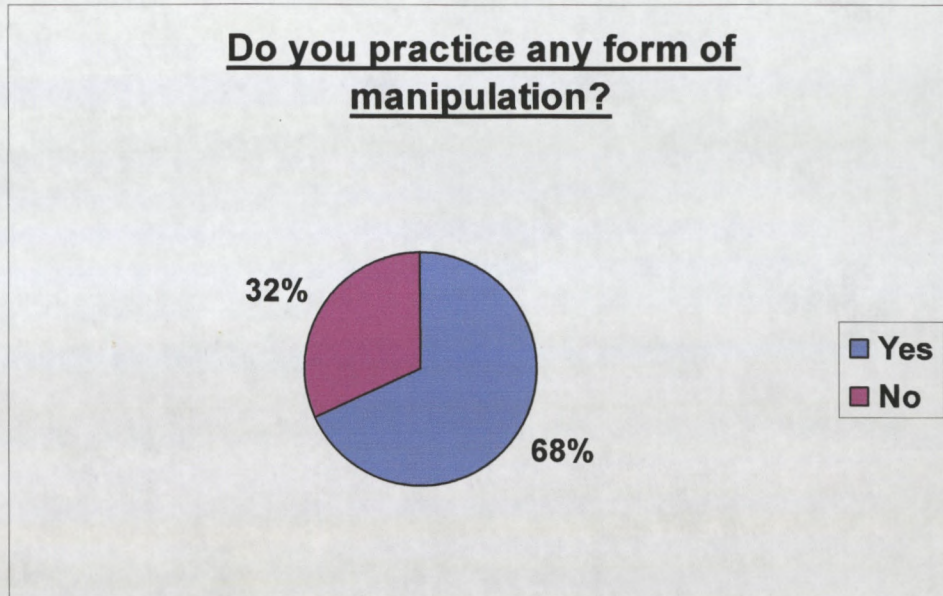


Question 47

Do you practice any form of spinal or extra vertebral manipulation?

68% (120) said yes

32% (57) said No



Of the 85 who replied when asked to comment on for what conditions they used manipulation for:

20 said they used manipulation for locked facet joints

16 said for joint stiffness

11 said for headaches

9 said for joint or surrounding muscle pain

20 said for torticollis

8 for chronic lower back pain

6 for whiplash

3 for general spinal dysfunction

1 for osteoarthritis

3 for disc patients

Question 48

Have you ever received any formal training in manipulation?

85% (150) said yes

15% (27) said no

Question 49

If you answered no, would you like to receive formal training in manipulation?

Of the 27

9 said that they would like to receive formal training and

18 said no

## APPENDIX D

Changes made to questionnaire after pilot study included the following:

In Question 8 the original question read as follows:

What qualifications did you have before starting your course in  
*physiotherapy?*

MAVO..... HAVO .... VWO..... Medical Degree ....  
Paramedical Degree.....  
Medical/paramedical propedeuse..... Other (please specify)....

This question was meaningless in the South African context and therefore  
was changed to:

What qualifications did you have before starting your course in  
physiotherapy?

Matric ..... Degree..... Diploma..... Medical Degree.....  
Paramedical Degree..... Medical/paramedical propaedeutic....  
Other (please specify) .....

In Question 16 a similar change was made.

The original question read:

What level of education is required to enter a chiropractic course?

None.... MAVO.... HAVO... VWO.....  
Medical or paramedical education.....  
Medical or paramedical propedeuse.....  
Don't Know.....

The adapted question read:

What level of education is required to enter a chiropractic course?

None..... Grade 10.....Grade 12 (No exemption).....  
Grade 12 (With exemption).....  
Medical or paramedical education.....  
Medical or paramedical propedeuse.....  
Don't know.....

Then in question 44 one of the potential areas of co-operation between  
physiotherapists and chiropractors was SI problems. However this was written  
out in full for the final draught of the questionnaire and stated as Sacro-iliac  
problems.



Question 50

Which of the following best reflects your view on chiropractic?

38% (67) I am uncomfortable with it but it is effective for some patients

44% (78) Chiropractic provides excellent treatment for some neuro-musculo-skeletal conditions.

1% (2) Chiropractic is quackery and does more harm than good.

17% (30) Not informed enough to comment.

**Fig.12 Which of the following best describes your view of chiropractic?**

