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PERCEPTIONS OF GAUTENG GENERAL PRACTITIONERS IN PRIVATE PRACTICE OF COMPLEMENTARY MEDICINE

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A research report submitted to the Faculty of Health Sciences, university of the Witwatersrand, Johannesburg, in partial fulfilment of the requirements for the degree of Master of Family Medicine in the discipline of Family Medicine

Johannesburg, 2011

DECLARATION

I, Louise Catherine Chalmers, declare that this research report is my own work. It is being submitted for the degree of Masters in Family Medicine in the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination at this or any other University.

day of

DEDICATION

To Craig, Caitlin

and Jemma

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ABBREVIATIONS

AHPCSA : Allied Health Professions Council of South Africa

AIDS : acquired immunodeficiency syndrome

CAM : complementary and alternative medicine

CPD : continued professional development

GP : general practitioner

HIV : human immunodeficiency virus

HPCSA : Health Professions Council of South Africa

IPA : independent practitioners association

SACMA : South African Complementary Medicine Association

SAFP : South African Academy of Family Practice

SAMA : South African Medical Association

TAC : Treatment Action Campaign

ABSTRACT

AIM**:** The aim of this study was to explore Gauteng general practitioners' knowledge, attitude and perceptions of complementary and alternative medicine (CAM).

METHOD: Self administered questionnaires were posted to 200 general practitioners in private practice. The general practitioners belonged to four Independent Practitioner Associations representing different parts of Gauteng. Questionnaires were returned from 131 doctors. Questions were asked about 14 modalities, selected according to their use internationally and locally. Experience with CAM, knowledge about it, willingness to discuss it with patients, to refer patients to CAM practitioners and willingness to accept advice from these practitioners was questioned. Also questioned was the legitimacy of CAM and whether the respondents wanted to learn more about CAM.

RESULTS: Results showed that there was a minority of respondents who had experience or knowledge of CAM. They did not discuss it with their patients and therefore had no idea how many of their patients were using CAM. However, most respondents wanted to learn more about CAM and felt that it should be included in the medical undergraduate curriculum.

CONCLUSION: Doctors have a need for further education about CAM, and integration of CAM training into the South African medical undergraduate should be considered. Doctors trained in allopathic medicine, who also have knowledge of CAM, will be able to manage their patients in a holistic, integrated way.

1 INTRODUCTION

'...what is taken for today's unorthodoxy is probably going to be tomorrow's convention.'

This prediction was made by HRH the Prince of Wales in a speech to the British Medical Association in 1982.[1]

Complementary and alternative medicine (CAM) can been described as different therapies, not regarded as being part of allopathic medicine, which have in common the features of treating the person as a whole, aim to heal and promote good health and which acknowledge the spiritual nature of the person.

The term CAM includes modalities such a homeopathy, acupuncture, nutrition, aromatherapy, massage, spirituality and faith healing and traditional medicines.

The questions must be asked as to why there is increasing attention being paid to CAM, why so much research is being done in the field and why this study was done.

Internationally, from the mid 1980s, there was evidence of a growing realisation that doctors were perhaps not meeting their patients' needs and expectations. A study by Himmel, done in Germany, showed that patients were becoming dissatisfied with what they perceived as a less caring attitude of doctors in mainstream medicine, and were worried about the side effects of the "chemical substances" they were being prescribed.[2] The invasiveness of technology, used for both diagnostic and therapeutic purposes, and the frustration of dealing with medical bureaucracy increased the strain on the doctor-patient relationship.[3]

For many of these people, CAM appeared to provide a more attractive alternative. It is perceived as being non-invasive, holistic and safer.

A paper published in the SA Family Practice Journal in 2008, questioning why patients consulted homeopaths, confirmed that similar reasons applied in South Africa to the rest of the world.[4] All the participants had consulted a homeopath only after mainstream medical treatment had not solved their medical problems. They expressed frustration at rushed consultations, poor bedside manner and judgemental doctors who were difficult to talk to but quick to prescribe. Homeopaths were described as being easier to talk to, more holistic in their approach and the treatment was natural and did not have side effects.

Looking at traditional medical practices, such as Ayurveda, African and Chinese, they are used by millions of people, both within their area of origin and by populations outside their indigenous culture. The World Health Organization estimate that 80% of the population of certain African and Asian countries rely on traditional medicine for primary health care.[5] It's estimated that 80% of the 1.15 billion population of India use Ayurveda exclusively or in combination with western medicine. Over 70% of the South African black population use African traditional medicine.[6] Traditional medical practices are also widely used outside their country of origin. In the United States, the 2007 National Health Interview Survey found that more than 200 000 people had used Ayurveda in the previous year, 4.8million homeopathy, 3.1 million acupuncture and 17% of the survey population used natural products, including Chinese herbs.[7]

Doctors are now acknowledging that many of their patients use CAM, but historically, there was very little knowledge about the modalities. Since 1970 there has been a considerable increase in original CAM research. By 2003, the Cochrane Library already contained 34 systematic reviews and 35 protocol of CAM.[8]

Research into doctors' views on CAM started in the 1980s, with Wharton and Lewith publishing a landmark study in 1986.[9] The study found that although

there was very little knowledge of the modalities, most of the doctors were happy to have their patient consult CAM practitioners.

In South Africa, research is starting to be done with reference to CAM. It, however, mainly focuses on patients' views, their reasons for using CAM and whether they use it in conjunction with allopathic medicine.[10] The monetary value of CAM use has been investigated and now there is a South African Medical Research Council unit dedicated to investigating the beneficial effects of indigenous plants and their role in African traditional medicine.[11]

Little has been done to examine South African doctors' opinions on the subject of CAM. It was therefore decided to do this study, using Gauteng-based GPs as the study population

1.1 Aims and objectives

The aim of this study is to explore Gauteng general practitioners' knowledge, attitude and perceptions of complementary and alternative medicine.

The objectives are as follows:

1. To obtain the demographic details of the participating doctors pertaining to their gender and age.
2. To establish the year and institution at which their undergraduate and postgraduate degrees were obtained, their place of practice and membership of professional organisations.
3. To explore the knowledge amongst the participants about the various forms of CAM and whether they can be regarded as legitimate forms of therapy.
4. To establish any personal experience (self/ family/ patients).

5. To establish the participants' level of comfort discussing CAM with patients.
6. To determine whether any of the participants have received training in any of the forms of CAM, and how this was obtained.
7. To establish the attitudes of the participants to consulting with and referring patients to CAM practitioners.
8. To examine perceptions of CAM held by the participants, with particular respect to its credibility and appropriateness in medicine.
9. To determine any further learning needs of the participants in the field of CAM.
10. To establish whether participants feel CAM be included in the South African medical undergraduate curriculum.

2 LITERATURE REVIEW

Complementary medicine is regarded as being any form of healing that is complementary to the body's own healing process.

The term alternative medicine is usually used in conjunction with complementary, and refers to therapies used in place of conventional medicine.[12]

More recently the term integrative or integrated medicine is being used. It describes the situation where CAM is used in conjunction with conventional medicine.

Whether working under the heading of CAM or integrated medicine, the practitioners of CAM all espouse a philosophical and therapeutic approach that addresses the uniqueness of each individual, that seeks to understand whole people in the total environment.

The definition of CAM adopted by the Cochrane Collaboration further described it as referring to a group of therapeutic and diagnostic disciplines that exist largely outside the institutions where conventional health care is taught and provided.[13] There is a focus on individualizing treatments, treating the whole person, promoting self-care and self-healing, and recognizing the spiritual nature of each individual.

Researchers at the National Institute of Health in the United States have classified CAM into seven categories[12]:

1. Mind-body interventions eg hypnosis, meditation, yoga
2. Bioelectromagnetic therapies eg electrical fields, magnets
3. Traditional systems of medical practice eg African medicine, Chinese medicine
4. Manual healing eg massage, chiropractic and osteopathic manipulation

5. Pharmocologic and biologic treatments eg naturopathy
6. Herbal medicine eg homeopathy
7. Diet and nutrition

2.1 Patients using CAM

The literature indicates that CAM has steadily increased in popularity among patients during the past 30 years.

In 1985, Fulder and Munro published a paper in the Lancet which would prove to be a landmark study in the relationship between conventional western medicine and CAM.[14] Practitioners of CAM in 7 areas of the United Kingdom took part in the questionnaire-based survey. The response rate was widely variable across the 7 areas. Results showed that half the practitioners had had formal education in the modality which they practiced, less than half being in full time practice. Acupuncture, osteopathy and chiropractic were the modalities consulted the most. Two-thirds of patients were female, and most were young or middle-aged and of the higher social classes.

Taking all the statistics into account, the authors extrapolated that there were approximately two million people using CAM in the United Kingdom at that time. They further concluded that, although the data indicated a growing and substantial subsidiary healthcare system in the United Kingdom, the evidence was that it was complementing rather than competing with conventional medicine.

Consumer bodies also researched the issue in the United Kingdom. The Consumers' Association published a survey of their members in 1985. This indicated that one in seven responders had used some form of CAM[15]. A follow up survey in 1992 gave the figure as now being one in four respondents[16].

A study by Thomas, Nicholl and Coleman[17] in 2001 found that 28,3% of their study respondents had had contact with CAM in the preceding twelve months.

This figure rose to 46.6% when questioned on overall incidence of lifetime contact. These figures translated to 22 million visits to CAM practitioners in a year.

In the United States, Eisenberg et al published a study in the New England Journal of Medicine in 1993.[18] The study involved telephonic interviews with 1500 adults in a national sample. Respondents were asked about any serious or chronic health conditions, their use of conventional medical services, and then their use of CAM. The study concluded that roughly one in four Americans who see their medical doctors for a serious health problem may be using CAM therapy in addition to conventional medicine for that problem. Seven out of ten encounters take place without patients' telling their medical doctors that they use CAM, suggesting a deficiency in patient-doctor relations.

In the United States, the National Centre for Complementary and Alternative Medicine (NCCAM) and the National Centre for Health Statistics (part of the Centres for Disease Control and Prevention) gather data about CAM and its uses, periodically releasing the associated statistics. The most recent figures available regarding the use of CAM were released in December 2008, and are based on the 2007 National Health Interview Studies[12].

Use of CAM by adults in the United States increased from 36.6% in 2002 to 38.3% in 2007. The use of CAM by children was not assessed in 2002, but in 2007 it was 11.8%. Assessing gender, age and ethnicity, it was found that people of all backgrounds use CAM. However, CAM use among adults was greater among women and those with higher levels of education and income. In children, CAM was more like to be used where there was lower parental income, and therefore delayed conventional care because of cost, especially in children with multiple health conditions.

Chronic conditions were the commonest reason patients consulted CAM practitioners: Alzheimer's disease, cancer, HIV and AIDS, back problems, headaches and chronic pain.

2.2 Response of Doctors to CAM

Research into the increasing use of CAM by patients and the resulting effects on their doctors has been done worldwide since the early 1980s. The extent to which CAM is practised by doctors differs considerably among countries.

In 1986, Wharton and Lewith published a landmark study in the BMJ *"Complementary medicine and the general practitioner"*.[9] It was the first formal study of GPs and their attitudes to and knowledge of CAM in Britain.

Questionnaires were sent to 200 GPs in the English county of Avon. Of the 145 responding practitioners, 38% had received some form of training in CAM and a further 15% wanted training. Overall, the GPs knew little about the techniques that were included in the study. Despite this, 59% thought that those specific CAM techniques were useful to their patients. The GPs views were most influenced by observed benefit to their patients and personal or family experience of the benefit.

George Lewith has gone on to publish many papers in the field of CAM. He now heads the Complementary Medicine Research Unit at the University of Southampton, United Kingdom. This unit has published research aimed at asking where CAM therapies may be most applicable, and whether and how they work.

Many other authors have followed with papers about this subject, preeminent amongst them being those authored by White[19], also in the United Kingdom, and Berman[20,21] and Eisenberg[18] in the United States. These studies all concluded that most doctors, especially those in general practice, were realising the need to learn more about CAM in order to adequately address their patients'

needs. Some were already referring patients to CAM practitioners whom they felt were competent and may be able to help these patients. A small percentage of doctors were themselves practicing one or other form of CAM.

The reasons for doctors favouring CAM can be summarized as follows:

- Patients' lack of response to conventional treatment
- Patients' request or preference
- Belief in efficacy
- Fewer adverse effects

The main arguments for doctors opposing their patients' use of CAM can be summarized as follows[22]:

- Alternative therapists do not have the extensive knowledge that is required to diagnose a illness properly
- There is a lack of evidence of the efficacy of CAM
- CAM is potentially harmful owing to its adverse effects or indirectly through the failure of patients to seek appropriate medical care

White concluded in his study that, although there is a common belief among the public that CAM is natural and therefore safe, GPs felt that there is plentiful evidence to the contrary.[19]This opinion was reached from what they had observed in their clinical practices and in the scientific literature. This study also concluded that few GPs felt confident to discuss CAM with their patients.

Berman et al concluded that a greater knowledge of CAM would result in a more positive attitude and greater likelihood that doctors would utilize these practices for their patients.[20] The study sample was drawn from the American Medical Association's membership list of primary care specialists. The study results also showed that the number of years a doctor has been in practice was an important demographic factor in determining their acceptance of CAM – doctors in practice

for more than twenty years were least accepting. It was further concluded that it was familiarity with, and not necessarily scientific evidence of, a therapy that influenced doctors' opinions.

George Lewith, in his paper '*The cultural context of CAM'*, expressed the opinion that, in Europe, the markedly variable acceptance of CAM between neighbouring countries was probably a culture-specific phenomenon based on historical attitudes to illness and healing.[23]

In Italy, a study based in the region of Tuscany, was published in 2007.[24] According to the Italian National Institute for Statistics in 2000, 13.6% of adults in Tuscany had made use of CAM in the preceding year.[25] This study found that 58% of the 1484 doctors responding recommended CAM. 13% practised it. Working in cities and younger age were associated with increased probability of both CAM recommendation and practice. The most frequently recommended CAM modalities were acupuncture, chiropractic and homeopathy. The main reason for 42% of respondents not recommending CAM was insufficient evidence of its effectiveness.

In Germany, there is a long tradition of a naturalistic approach to medicine, as illustrated by the historically popular visits to spas. A study done in Germany, found that the overall percentage of individuals who had experienced any form of CAM increased from 52% in 1970 to 73% in 2002.[26]

The first national survey to ascertain the use of CAM by family physicians and their attitudes toward specific CAM disciplines, was published in Germany in 2009.[27] A postal questionnaire was sent to 3 000 family physicians randomly selected from the national database. A positive attitude toward CAM was indicated by 55% of the respondents, with 60% of these reporting using CAM in their practice. Their use of these therapies was influenced by positive personal experience combined with a pragmatic therapeutic approach.

The survey concluded that CAM is highly valued by many family physicians and is already making a substantial contribution to primary care in Germany. It recommended that education and research should be increased, promoting the ultimate aim of Integrative Medicine.

Moving to the southern hemisphere, research into GPs attitudes to and use of CAM has been happening for two decades. A study published in the New Zealand Medical Journal in 1988 by Hadley et al, showed a very positive attitude towards CAM.[28] 27% of the doctors practised some form CAM, many without training, and 54% wanted training. The study concluded that a review of the undergraduate medical curriculum was necessary.

A similar study, this time canvassing the views of Auckland GPs was done in 1990.[29] It concluded that although there was ambivalence about CAM in 70% of the respondents, most referred their patients due to a failure of conventional medicine or at patient request.

Poynton et al did a nationwide study of New Zealand GPs in 2005/6.[30] This found that the number of GPs practising CAM had decreased to 20%, and those wanting training had also declined. The authors felt that increased time constraints and increased information available over the previous decade were responsible for these changes.

In Australia, Kotsirilos has led much of the research. Most of the studies have been confined to specifically defined areas. A study of Victorian GPs demonstrated an 80% referral rate to CAM practitioners.[31,32] 30% of the respondents wanted further training. Almost 70% of Perth GPs were in favour of referral to CAM therapists, with 60% wanting further training.[32] A postal survey of Victorian GPs found that GPs who practised CAM tended to be male, older and worked full time.[33] These findings varied from the results of a postal survey of Tasmanian GPs[34]. There GPs most likely to use CAM were young with no gender difference. In response to these studies, the Royal Australian College of

General Practitioners formed a Working Party, headed by Kotsirilos, with the Australasian Integrative Medicine Association.[35]

2.3 South Africa

Traditional healers existed in South Africa amongst the ethnic population long before the Cape was colonized by the Dutch, over three hundred years ago. These healers relied on knowledge, observations and practices, whether explicable or not, handed down from generation to generation. These tools were used in diagnosis, prevention and elimination of physical or mental imbalance. Societal issues could also be addressed.[36]

Traditional medicine remains widespread for various reasons. Abdool Karim et al, have estimated that the ratio of traditional healers to the population as approximately 1:500 in Sub-Saharan Africa. Medical doctors were estimated as having a 1:40 000 ratio to the rest of the population.[37]

Traditional healers have always had a holistic way of dealing with the patient and their illness, treating the patient's spiritual and physical well-being together. In South Africa, most people associate traditional medicine with herbal remedies, prescribed by izinyangas, or with advice imparted by sangomas. Both have strong spiritual components.

It is difficult to know how many traditional healers there are actively practicing their trade in South Africa. The Traditional Healers Organization, one body representing these practitioners, currently represents more than 180 000 traditional healers from Southern Africa. This organization estimates that there are another 200 organizations in South Africa also representing traditional healers. Attempts by the South African government to formalise the practicing of traditional medicine only began in the late 1990s, culminating with the Traditional Healers Act of 2004.[38]

The Health Systems Trust, a South African non-governmental organisation, has published several papers and discussion documents about all aspects of traditional medicine in this country. Its' research has estimated that there are some 27 million consumers of traditional medicine in South Africa, 72% of the black population, and they cover a diverse range of age categories, education levels, religions and occupations.[6] It is not the cheaper alternative of health care used by the poor, rural and uneducated, often costing more than medicines available at government clinics.

The trade in traditional medicines in South Africa is estimated to be worth around R3 billion per year, representing nearly 6% of the National Health budget.

The South African Medical Research Council's Traditional Medicines Research Unit was founded in 1997.[11] While acknowledging and respecting traditional methods of healing, it aims to further locally based research around the use and understanding of traditional medicine. Another aim is to increase awareness among western practitioners of the benefits of integrating the two health systems.

Attempts are being made to sensitise communities to the value of their knowledge of indigenous plants, and to use this to increase understanding of the plants' healing properties and potential development into new pharmaceuticals. A very important function of the unit is to advise legislators as they attempt to regulate the proper use of medicinal plants.

Some patients see traditional healers exclusively, but many others see their healer before, during, or after treatment by an allopathic doctor. Dr Daniel Ncayiyana, editor of the South African Medical Journal, has summarised the situation as follows:" We have to recognise the traditional healers…they are indeed part of the health care delivery system."[36]

A study was done at the George Mukhari Hospital, near Pretoria, from mid 2004 to mid 2005. HIV positive patients started on antiretroviral drugs during this period were asked whether they were also using any other form of therapy. Of

the patients who participated, 4.4% were using traditional medicine, 3.3% some other form of CAM and 1.7% were making use of over-the-counter medicines. [10]

Many research papers and policy documents on CAM and its' use in South Africa have been published by the Treatment Action Campaign (TAC), a non-governmental organization promoting the right to good healthcare for people living with HIV/AIDS. The use of traditional medicines is thought to be high amongst people with 33.5% of those living with HIV/AIDS. One TAC study estimated that 33.5% of the patients were using them to manage HIV symptoms.[39] Patients receiving antiretroviral medicines commonly take traditional medicines concurrently with their therapy despite there being little or no published information on the effectiveness and possibility of interactions.

Alongside traditional medicine in South Africa, there appears to be a growing utilization of the other CAM modalities. Ten out of the fourteen modalities, about which general practitioners will be questioned in this study, are required to be registered with the Allied Health Professions Council of South Africa, namely Acupuncture, Aromatherapy, Ayurveda, Chinese Medicine, Chiropractic, Homeopathy, Massage, Nutrition, Osteopathy and Reflexology.

A study investigating South African homeopaths' attitudes towards conventional medicine, indicates a 15 to 20% increase annually in the use of homeopathic medication.[40]The increase in CAM popularity and utilization can also be illustrated in the area of nutritional supplements - in 1996 the value of this area of the CAM industry in South Africa was one billion rand.[41] In 2008, the market worth for dietary supplements was 2,5 billion rand, and growing at 15% per annum.

Various special interest groups eg the South African Society for Integrative Medicine, a group for medical practitioners interested in CAM, are able to provide anecdotal evidence into the use of CAM in South Africa, but there is little formal data.

South African doctors' opinions of CAM and their associated use or referral habits have not been questioned. It isn't known, therefore, if they follow global trends.

Based on the identified need for local research, it was decided to do this study.

3 METHOD

3.1 Design

This is a cross-sectional descriptive study.

3.2 Study Population

The study was designed to be done on GPs in private practice within the Gauteng province of South Africa. Ideally, the study would have used a sample from a complete list of GPs in private practice in Gauteng. Unfortunately, such a list was not available. This necessitated the use of private lists.

All doctors practicing in South Africa must be registered with the Health Professions Council of South Africa (HPCSA). The HPCSA register does not designate general practitioners specifically, only listing medical practitioners as specialist or non-specialist. As of February 2000, when this study was in its initial stage, 34% (6584) of non-specialist medical practitioners registered with the HPCSA (19471) were in Gauteng.[42] How many of these were GPs is not known.

It was therefore decided to use a convenience population using IPAs (Independent Practitioners Associations) operating in Gauteng as a way of reaching doctors. Each IPA is made up of a diverse range of general practitioners in private practice within a defined region, who shared the common goal of dealing with issues as a strong group, rather than as weaker individuals. This study focused on IPAs in Gauteng which covered the Johannesburg Metropolitan Municipality, Ekurhuleni and the West Rand District Municipality. Various sources, such as the Private Health Care Annual and the South African

Health Synergies, were referenced in order to identify any IPAs in the designated geographical region. Six were identified and their executive contacted telephonically for permission to have access to their membership lists, and to approach these GPs requesting their participation in my study. Two refused my request immediately. Two IPAs gave permission telephonically and their membership lists were then faxed to me. One IPA required written permission, whereupon consent was conveyed telephonically and their membership list forwarded. I addressed the members of the sixth IPA at a monthly meeting. After discussion they agreed to participate.

The participating IPAs are NIMPA (representing northern and western Gauteng), Clinicross (eastern and southern Gauteng), SOWIPA (Soweto) and the Lenasia IPA.

It must be acknowledged that not all general practitioners in private practice belonged to IPAs, so the results of this study may not be completely generalizable. By using these four IPAs, geographically distributed as they were, it was hoped that the sample population would be doctors attending to a cross section of the general population.

Membership figures were as follows:

NIMPA	184
Clinicross	341
SOWIPA	90
Lenasia	15

This gave a total of 630 GPs eligible to be in the study population.

3.3 Sample

The assistance of a Statistician from the Medical Research Council was obtained for the calculation of the required sample size. He used the Epi Info Program, Version 3.5.1, of the Centres for Disease Control and Prevention.

Estimating a 10% accuracy and 95% confidence level for this sample population, the recommended number of questionnaires to be sent out was 200. The number of questionnaires sent to GPs of each IPA was be proportional to the IPA size, and participants from each IPA were be selected from the IPA membership using a process of systematic selection (every third name on an IPA list was selected).

The number of questionnaires sent out was as follows:

NIMPA	58
Clinicross	108
SOWIPA	29
Lenasia	5

3.4 Measuring Instrument

A questionnaire to be self-administered was designed using the questionnaires of three respected international studies as references. Consent for this was obtained from the authors of these studies: Berman,White and Lewith.[19,21,9] None of these questionnaires alone contained all the questions needed to fulfil the objectives of this study. Appropriate questions were selected and the list of modalities drawn up to include those covered in the studies. Adaptations were made to make the questions relevant to the South African context and for the purposes of this study (Appendix 1).

The questionnaire begins by covering the demographic details of the participant GPs, with respect to age, gender and tertiary qualifications. Thereafter, the

knowledge of and attitudes towards CAM as a whole, and then the individual forms, is obtained. Finally, the GP's overall perceptions of CAM are ascertained.

The fourteen forms of CAM listed in the questionnaire:

a. Acupuncture
b. African traditional medicine
c. Aromatherapy
d. Chiropractic
e. Homeopathy
f. Hypnotherapy
g. Ayervedic medicine
h. Massage
i. Naturopathy
j. Nutritional medicine
k. Osteopathy
l. Reflexology
m. Spirituality and Faith healing
n. Traditional Chinese medicine

The therapeutic modalities were chosen because they were used in the reference studies, ten are registered with the AHPCSA and African traditional medicine is a locally relevant therapy not included in other studies.

3.5 Ethical aspects

Ethical clearance was obtained from the Committee for Research on Human Subjects (Medical), University of the Witwatersrand, Johannesburg.

Protocol number: M00/05/03 (Appendix 2)

Consent was obtained from the IPAs for use of their member details.

A covering letter was posted with each questionnaire explaining that participation was voluntary and anonymous, and the information would only be used for this study.

3.6 Pilot Study

A pilot study was done in order to identify any problems with the study in general, and specifically in the formatting or wording of the questionnaire, enabling correction. It was done during the week of 5-9 June 2000, with the assistance of the Department of Family Medicine of the University of the Witwatersrand. The third year Masters of Family Medicine class of students participated.

There were 19 members of this group. Most worked in private general practice, but not all in Gauteng. Postgraduate students working in public sector hospitals and clinics were included in the pilot study, but asked to mark their questionnaires accordingly. From the input of the postgraduate students, the wording of two questions was changed to make them clearer and unambiguous.

3.7 Data Collection

Questionnaires were mailed in July 2000, with August and September being allowed for the return of questionnaires, and reminders should they be required.

Each participant received a self-administered questionnaire, accompanied by a detailed letter explaining the study, assuring confidentiality and anonymity. A stamped addressed envelope and a separate stamped reply card were enclosed,

with the participants requested to post them separately. In this way, non-responders could be traced if the reply card had not been received after a period of six weeks. These doctors were given one telephonic reminder. A response rate of at least forty percent was hoped for (a percentage considered to be fairly good for a postal questionnaire).[43]

3.7.1 Data analysis

The data from the completed questionnaires was entered into and then analysed using the Epi Info Program, Version 3.5.1, of the Centres for Disease Control and Prevention. Further analysis was carried out using the SPSS (Statistical Package for Social Sciences) Version 13.

The aim and objectives of this study will be achieved through descriptive statistics such as mean, frequencies and cross tabulations.

4 RESULTS

4.1 Response rate

200 questionnaire packages were posted. Postal questionnaires do not always get a good response rate. The follow-up phone call would hopefully improve it. The study also relied on the participating IPAs to provide the names and postal addresses of their members. It was hoped that these lists would be accurate and up to date.

Over a period of three months 131 questionnaires were returned, 4 not filled in. Phone calls were made to 83 GPs according to non-receipt of the postcards. The breakdown of returns from the various IPAs could not be made as the questionnaires were returned anonymously.

The data was captured from the remaining 127. The calculated response rate was 65.5%. This is a good response rate, as anything over 40% is regarded as a good response rate for postal questionnaires, as discussed previously.

4.2 Demographic profile of respondents

4.2.1 Age

Table 1: Distribution of the age groups of participants

Age Groups	Frequency	%
Under 40 years	44	34.6
40-49 years	44	34.6
50-59 years	27	21.3
60 years or over	10	7.9
Missing	2	1.6
Total	127	100

Table 1 shows the age profile of the GPs participating in the study. The average age is 44 years old (mean = 44.45), while the median is 43 years. The mode of the respondents is 34 years. The age range is 28-77 years.

All but two respondents provided their age.

4.2.2 Gender

Male general practitioners represent 71% (90 out of 127).

A cross tabulation of age group and gender was done.

Table 2: Cross tabulation of age group and gender

	Gender		
Age Group	**Female**	**Male**	**Total**
Under 40 years	18	26	44
40 – 50 years	11	33	44
50 – 60 years	3	22	25
Over 60 years	1	8	9
Total	33	89	122

p value: 0.0383

As Table 2 shows, there is no significant correlation between the gender of the respondents and their age as p value > 0.01.

The ratio of male to female respondents was significant in the later comparison of gender to other variables.

Table 3: Gender numbers of respondents

	Male	**Female**	**Unknown**	**Total**
Number	90	34	3	127
Percentage	70.9	26.8	2.3	100

4.2.3 Professional Organizations

Respondents were asked about their membership of professional organizations, namely the South African Complementary Medicine Association (SACMA), the South African Academy of Family Practice (SAFP) and the South African Medical Association (SAMA). SACMA was an organisation in South Africa for medical professionals with an interest in CAM.

Table 4: Membership of professional organizations

Organization	Frequency	%
SACMA	1	0.7
SAFP	5	4.0
SAMA	88	69.3
Missing	33	26.0
Total	127	100

As Table 4 indicates, the majority of respondents were SAMA members. Only one belonged to SACMA.

4.2.4 Qualification

Respondents were asked to name the institution where they obtained their undergraduate medical qualification, and the year.

84.3%(n=107) of the responding general practitioners gained their undergraduate qualifications in South Africa, from the following seven Institutions:

- University of the Witwatersrand
- University of Pretoria
- Medunsa (now part of the University of Limpopo)
- University of Cape Town
- University of the Free State
- Stellenbosch University
- University of Natal (now part of the University of KwaZulu-Natal)

The spread of respondents between the different institutions is illustrated in Figure 1.

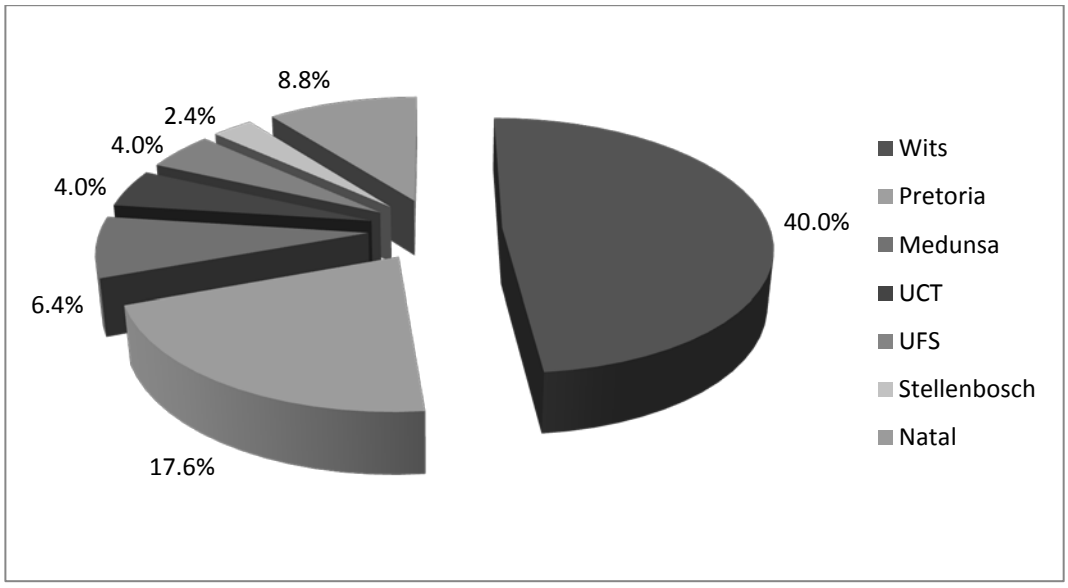

Figure 1: South African universities attended

51(40.2%) obtained their undergraduate qualification from Wits. This high percentage is probably because the study was done in Gauteng.

The only university not represented is the University of the Transkei (now the Walter Sisulu University).

The 25.4%(n=20) of respondents gained their undergraduate medical qualifications outside South Africa, as can be seen in Table 5.

Table 5: Other countries of graduation (n=20)

Country	Frequency	%
Zimbabwe	1	5.0
Egypt	3	15.0
Belgium	1	5.0
United Kingdom	3	15.0

Ireland	5	25.0
India	5	25.0
Pakistan	2	10.0
Total	20	100

Table 5 indicates an equal distribution between countries who historically practice more allopathic medicine eg Ireland, United Kingdom, and traditional medicine eg India, Egypt.

The years in which the undergraduate qualifications were obtained extended from 1939 up to 1998, as illustrated in Table 6.

Table 6: Years of undergraduate graduation (n=127)

Years of graduation	Frequency	%
Pre1960	7	5.5
1960 - 1969	6	4.7
1970 - 1979	24	18.9
1980 - 1989	40	31.5
1990 - 1998	44	34.7
Missing	6	4.7
Total	127	100

66.2% of the qualifications were less than 20 years old at the time that the study was done.

Respondents were also asked about postgraduate qualifications. 46(35.7%) had obtained qualifications from both South African and international institutions. These qualifications were obtained between 1957 and 2002. There was a wide range of qualifications, many not in the medical field.

Cross tabulations using the respondents' place of undergraduate qualification and other variables, such as knowledge of CAM and referral of patients showed no significance.

4.2.5 Place of work

The respondents were asked to state where they worked. These locations were stratified according to the various municipal regions in Gauteng, and occurred as follows in Table 7:

Table 7: Place of work (n=127)

Municipal Area	Frequency	%
Ekurhuleni Metropolitan Municipality	34	26.7
City of Johannesburg Metropolitan Municipality, Regions B and E (north)	29	22.8
West Rand District Municipality	13	10.2
City of Johannesburg Metropolitan Municipality, Regions D, F and G (inner city and south)	36	28.3
Not indicated	15	12.0
Total	127	100

It can be seen that there is fairly even distribution of participating GPs in Ekurhuleni and the areas of the two City of Johannesburg Metropolitan Municipalities. Five of the respondents indicated that they also spent time working outside of Gauteng – three in Mpumalanga, one in Kwazulu-Natal and one in the Eastern Cape.

4.3 General practitioners' knowledge of, experience in and training in CAM

4.3.1 Knowledge

The respondents were asked to rate their knowledge of the different CAM modalities on a 4 point scale of 1(know nothing) to 4(know a lot).

Table 8: Gauteng GPs knowledge rating of CAM (n=127)

Modality	Ratings								Total	
	Know nothing		Know a little		Know something		Know a lot			
	freq	%	freq	%	freq	%	freq	%	freq	%
Acupuncture	43	34.1	56	44.4	20	15.9	7	5.6	126	100
African traditional medicine	61	48.8	41	32.8	19	15.2	4	3.2	125	100
Aromatherapy	53	42.1	50	39.7	22	17.5	1	0.8	126	100
Ayurvedic medicine	96	76.2	18	14.3	9	7.1	3	2.4	125	100
Chiropractic	51	40.8	53	42.4	20	16.0	1	0.8	125	100
Homeopathy	31	24.8	58	46.4	33	26.4	3	2.4	125	100
Hypnotherapy	58	46.0	49	38.9	16	12.7	3	2.4	126	100
Massage	43	34.4	57	80.0	19	15.2	6	4.8	125	100
Naturopathy	79	63.7	33	26.6	11	8.9	1	0.8	124	100
Nutritional medicine	44	35.5	44	35.5	30	24.2	6	4.8	124	100
Osteopathy	90	71.4	30	23.8	6	4.8	0	0.0	126	100
Reflexology	47	37.3	62	49.2	16	12.7	1	0.8	126	100
Spirituality & faith healing	56	44.4	39	31.0	25	19.8	6	4.8	126	100
Traditional Chinese medicine	97	78.9	18	14.6	5	4.1	3	2.4	123	100

The results shows that there is limited knowledge of these modalities as all scores were higher in the “know nothing” and “know a little” categories. Only 6(4.8%) felt that they knew a lot about any modality, namely massage, nutritional medicine and spirituality and faith healing.

Least is known about Ayurvedic medicine, osteopathy and traditional Chinese medicine, with more than 70% of GPs indicating that they know nothing about them.

4.3.2 Legitimate therapy

Respondents were asked whether they thought that the different modalities were legitimate forms of therapy or not, or to indicate if they did not know enough to give an opinion.

Table 9: Legitimacy of CAM (n=127)

Modality	Legitimate						Total	
	Yes		Do not know enough to judge		No			
	freq	%	freq	%	freq	%	freq	%
Acupuncture	82	66.1	32	25.6	7	5.8	121	100
African traditional medicine	37	27.0	56	44.3	29	23.8	122	100
Aromatherapy	37	30.8	47	39.2	36	30.0	120	100
Ayurvedic medicine	25	20.8	81	67.5	14	11.7	120	100
Chiropractic	78	65.0	36	30.0	6	5.0	120	100
Homeopathy	71	59.2	34	28.3	15	12.5	120	100
Hypnotherapy	59	48.8	50	41.3	12	9.9	121	100
Massage	68	55.3	40	32.5	15	12.2	123	100
Naturopathy	25	21.2	71	60.2	22	18.6	118	100
Nutritional medicine	72	58.5	38	30.9	13	10.6	123	100
Osteopathy	22	17.9	84	68.3	17	13.8	123	100
Reflexology	42	34.7	49	40.5	30	24.8	121	100
Spirituality & faith healing	49	39.8	47	38.8	27	22.4	123	100
Traditional Chinese medicine	21	17.2	88	72.1	13	10.7	122	100

As can be seen in Table 9, more than 50% of the GPs felt that acupuncture, chiropractic, homeopathy, massage and nutritional medicine were legitimate forms of treatment. African traditional medicine, aromatherapy, reflexology and spirituality and faith healing were thought not to be legitimate by more than 20% of respondents. At least 25% of respondents felt unable to judge the legitimacy of every modality. More than 60% did not know enough to judge the legitimacy of Ayurvedic medicine, osteopathy and traditional Chinese medicine.

4.3.3 Personal experience

Respondents were asked if they had any personal experience of CAM. Of the 112(88.2%) who responded, 70(55.1%) had had some experience.

They were then asked to indicate in which modality they had experience – more than one modality could be selected if necessary.

Table 10: CAM modalities which respondents have experienced (n=112)

Modality	Frequency	%
Acupuncture	37	52.3
African traditional medicine	19	27.1
Aromatherapy	32	45.7
Ayurvedic medicine	12	17.1
Chiropractic	27	38.6
Homeopathy	46	65.7
Hypnotherapy	17	24.3
Massage	45	64.3
Naturopathy	6	8.6
Nutritional medicine	25	35.7
Osteopathy	4	5.7
Reflexology	32	45.7
Spirituality & faith healing	26	37.1
Traditional Chinese medicine	8	11.4
Other	3	4.3
Total	339	

Table 10 was answered by 112 respondents, yet there are a total of 339 modalities selected, indicating that many respondents selected more than one modality. More than 50% of these GPs had experience in each of acupuncture (52.3%), homeopathy (65.7%) and massage (64.3%). Aromatherapy (45.7%) and reflexology (45.7%) were also widely experienced. Naturopathy (8.6%), osteopathy (5.7%) and traditional Chinese medicine (11.4%) were the least experienced.

4.3.4 Patients discussion

Respondents were asked whether they felt that they knew enough to discuss some aspects of CAM with their patients. Of the 115(90.6%) out of 127 respondents who answered this question, 46(40%) answered Yes.

These 46 respondents were then asked to indicate which CAM modalities they were able to discuss with patients. More than one modality could be selected.

Table 11: CAM modalities respondents are able to discuss (n=46)

Modality	Frequency	%
Acupuncture	33	71.7
African traditional medicine	10	21.7
Aromatherapy	19	41.3
Ayurvedic medicine	9	19.6
Chiropractic	21	45.7
Homeopathy	29	63.0
Hypnotherapy	14	30.4
Massage	21	45.7
Naturopathy	9	19.6
Nutritional medicine	23	50.0
Osteopathy	6	13.0
Reflexology	18	39.1
Spirituality & faith healing	22	47.8
Traditional Chinese medicine	6	13.0
Other	2	4.3
Total	242	

From Table 11 it can be seen that most respondents indicated more than one modality. More than 50% of this group feel able to discuss acupuncture (71.7%), homeopathy (63.0%) and nutritional medicine (50.0%). Ayurvedic medicine (19.6%), naturopathy (19.6%), osteopathy (13.0%) and traditional Chinese medicine (13.0%) are least discussed.

4.3.5 Training

Respondents were asked if they had had any formal training in CAM. 19(15.0%) of the 121(95.3%) who answered this question, indicated that they had had some training. This 15% were then asked to indicate in which modality this training had been obtained. More than one modality could be selected.

Table 12: Modalities in which respondents have been trained (n=19)

Modality	Frequency	%
Acupuncture	12	63.2
Aromatherapy	2	10.5
Chiropractic	3	15.8
Homeopathy	6	31.6
Hypnotherapy	2	10.5
Ayurvedic medicine	1	5.3
Massage	1	5.3
Nutritional medicine	5	26.3
Reflexology	2	10.5
Spirituality & faith healing	1	5.3
Traditional Chinese medicine	4	21.1
Other	1	5.3
Total	40	

Table 12 shows that 19 respondents gave 40 answers, indicating that some had training in more than one modality. Most training had been in acupuncture

(63.2%), homeopathy (31.6%) and nutritional medicine (26.3%).These respondents were also asked to indicate how this training had been obtained. More than one modality could be selected.

Table 13: Forms of CAM training (n=19)

Modality	Form of training						Total	
	Self study		Lecture/workshop		Diploma			
	Freq	%	Freq	%	Freq	%	Freq	%
Acupuncture	3	27.3	6	54.6	2	18.2	11	100
African traditional medicine	0	0.0	2	100	0	0.0	2	100
Aromatherapy	0	0.0	2	100	0	0.0	2	100
Ayurvedic medicine	1	50.0	1	50.0	0	0.0	2	100
Chiropractic	0	0.0	1	100	0	0.0	1	100
Homeopathy	0	0.0	4	100	0	0.0	4	100
Hypnotherapy	0	0.0	4	100	0	0.0	4	100
Massage	1	33.3	2	66.7	0	0.0	3	100
Naturopathy	1	50.0	1	50.0	0	0.0	2	100
Nutritional medicine	2	50.0	2	50.0	0	0.0	4	100
Osteopathy	0	0.0	1	100	0	0.0	1	100
Reflexology	0	0.0	2	100	0	0.0	2	100
Spirituality & faith healing	1	50.0	1	50.0	0	0.0	2	100
Traditional Chinese medicine	2	40.0	2	40.0	1	20.0	5	100
Total	11		31		3		45	

Table 13 shows that lectures and workshops are the commonest forms of training, being indicated 31 times. As only 19 respondents answered this question, this indicates that some respondents must have attended lectures and workshops in more than one modality. This same trend was reflected overall, with 45 forms of training indicated by these 19 respondents.

Only three respondents had obtained diplomas, two in acupuncture and one in traditional Chinese medicine.

4.4 General practitioners' attitude towards CAM

4.4.1 Referral

Respondents were asked to indicate whether they referred to CAM practitioners. Of the 116 respondents, 67(57.8%) said that they did that they did.

This group of respondents was then asked to indicate to which therapists they might refer. More than one modality could be selected.

Table 14: CAM modalities referred to by respondents (n=67)

Modality	Frequency	%
Acupuncture	46	68.7
African traditional medicine	12	17.9
Aromatherapy	16	23.9
Ayurvedic medicine	10	14.9
Chiropractic	39	58.2
Homeopathy	35	52.2
Hypnotherapy	16	23.9
Massage	28	41.8
Nutritional medicine	19	28.4
Naturopathy	5	7.4
Osteopathy	7	10.4
Reflexology	21	31.3
Spirituality & faith healing	20	29.9
Traditional Chinese medicine	5	7.4
Other	3	4.5
Total	282	

As can be seen from Table 14, more than 50% of the respondents to this question were willing to refer patients to acupuncturists (68.7%), chiropractors (58.2%) and homeopaths (52.2%). Least likely to be referred to were Ayurvedic medicine practitioners (14.9%), naturopaths (7.4%), osteopaths (10.4%) and traditional Chinese medicine practitioners (7.4%).

4.4.2 Patients consulting CAM practitioners

Respondents were asked how they felt about their patients consulting with CAM practitioners.

Table 15: Respondents attitude on patients consulting CAM practitioners (n=127)

Answer	Frequency	%
Accepting	16	12.6
Accepting as long as it does no harm	93	73.2
Concerned/irritated	10	7.9
Other	1	0.8
Missing	7	5.5
Total	127	100

Table 15 shows that the respondents were generally accepting of their patients consulting CAM practitioners, even if they still had some doubts – 12.6% of the respondents were accepting and 73.2% accepting as long as it does no harm.

4.4.3 Advice

Respondents were asked if they accepted advice from CAM practitioners. Of the 116 respondents who answered this question, 94 (81.0%) said that they would accept advice.

This group was then asked to indicate the CAM practitioners from whom advice would be acceptable. More than one modality could be selected.

Table 16: CAM practitioners from whom advice would be acceptable (n=94)

Modality	Frequency	%
Acupuncture	79	84.0
African traditional medicine	35	37.2
Aromatherapy	39	41.5
Ayurvedic medicine	33	35.1
Chiropractic	62	66.0
Homeopathy	56	59.6
Hypnotherapy	47	50.0
Massage	48	51.1
Naturopathy	30	32.0
Nutritional medicine	66	70.2
Osteopathy	31	33.0
Reflexology	42	44.7
Spirituality & faith healing	46	49.0
Traditional Chinese medicine	32	34.0
Other	1	1.1
Total	647	688.3

As can be seen from Table 16, acupuncturists (84.0%), chiropractors (66.0%) and nutritional medicine practitioners (70.0%) are the CAM practitioners from whom advice would be most acceptable. Less than 40% of the respondents would accept advice from naturopaths (32.0%), osteopaths (33.0%), traditional Chinese medicine practitioners (34.0%), Ayurvedic practitioners (35.1%) and African traditional medicine practitioners (37.2%).

4.4.4 Learning about CAM

The GPs were asked if they felt that they needed to know more about CAM. Of the 118 respondents, 95 (80.5%) indicated that they would like to know more.

These respondents were then asked to indicate the CAM modalities they would like to learn about. More than one modality could be selected.

Table 17: CAM modalities respondents want to learn about (n=95)

Modality	Frequency	%
Acupuncture	76	80.0
African traditional medicine	69	72.6
Ayurvedic medicine	58	61.1
Aromatherapy	50	52.6
Chiropractic	64	67.4
Homeopathy	70	73.7
Hypnotherapy	59	62.1
Massage	53	55.8
Naturopathy	56	60.0
Nutritional medicine	72	75.8
Osteopathy	51	53.7
Reflexology	56	60.0
Spirituality & faith healing	50	52.7
Traditional Chinese medicine	55	57.9
Total	839	

According to Table 17, there was significant interest in learning about all the modalities. More than 50% of the GPs answering this question wanted to learn about all modalities. Most popular were acupuncture (80.0%), African traditional medicine (72.6%), homeopathy (73.7%) and nutritional medicine (75.8%). Least

popular were aromatherapy (52.6%), osteopathy (53.7%) and spirituality and faith healing (52.7%).

4.4.5 Continuing Professional Development (CPD)

Respondents were asked to indicate in what form CAM education could be included as part of CPD.

Table 18: CPD forms in which CAM could be included (n=127)

CPD	Frequency	%
Journal based CPD	30	25.0
Lecture/seminar	19	15.8
Short course/workshop	45	37.5
Diploma/certificate course	8	6.7
Would not like CPD about complementary medicine	18	15.0
Missing	7	5.8
Total	127	100

Table 18 shows that short course/ workshop (37.5%) and journal based CPD (25.0%) are the most popular. 15% of respondents did not want CPD about CAM.

4.5 Perceptions of CAM

4.5.1 CAM statements

Respondents were asked to indicate their agreement with seven statements regarding CAM using a five point scale, from 1(strongly agree) to 5(strongly disagree).

Table 19: Respondents rating of CAM statements (n=127)

Statements about CAM	Rating of CAM statement					Total f (%)
	Strongly agree f(%)	Agree f(%)	Undecided f(%)	Disagree f(%)	Strongly disagree f(%)	
No scientific basis	12(10.1)	28(23.5)	48(40.3)	22(18.5)	9(7.6)	119(100)
More caring than Western medicine	16(13.2)	33(27.3)	28(23.1)	31(25.6)	13(10.7)	121(100)
A more holistic way of treating patients	15(12.4)	46(38.0)	22(18.2)	25(20.7)	13(10.7)	121(100)
A waste of patients' money	7(5.8)	14(11.7)	43(35.8)	42(35.0)	14(11.7)	120(100)
Acceptable for minor ailments only	13(10.8)	42(35.0)	33(27.5)	25(20.8)	7(5.8)	120(100)
Dangerous to patients	6(5.0)	21(17.5)	39(32.5)	40(33.3)	14(11.7)	120(100)

Table 19 shows that many of the respondents were "undecided" about the statements – no scientific basis (40.3%), a waste of patients' money (35.8%), acceptable for minor ailments only (27.5%) and dangerous to patients (32.5%). 50.4% of respondents either agreed or strongly agreed that CAM is a more holistic way of treating patients. The majority of respondents (70.8%) disagreed or strongly disagreed that CAM has no place in medicine. Similar numbers of respondents agreed (27.3%), disagreed (23.1%) or were undecided (25.6%) about whether CAM was more caring than Western medicine.

4.5.2 Patients using CAM

Respondents were asked to estimate what proportion of their patients they thought were using the different CAM modalities.

Table 20: Respondents' estimation of their patients' CAM use

Practices	Proportion of patients				Total f(%)
	No idea f(%)	< 25 % f(%)	25 – 50 % f(%)	> 50 % f(%)	
Acupuncture	50(43.1)	60(51.7)	6(5.2)	0(0.0)	116(100)
African traditional medicine	31(26.5)	35(29.9)	30(25.6)	21(17.9)	117(100)
Aromatherapy	62(54.4)	40(35.1)	11(9.6)	1(0.9)	114(100)
Ayurvedic medicine	35(30.7)	60(52.6)	17(14.9)	2(1.8)	114(100)
Chiropractic	26(22.6)	52(45.2)	33(28.7)	4(3.5)	115(100)
Homeopathy	80(70.2)	30(26.3)	4(3.5)	0(0.0)	114(100)
Hypnotherapy	85(73.9)	28(24.3)	1(0.9)	1(0.9)	115(100)
Massage	49(42.6)	51(44.3)	13(11.3)	2(1.7)	115(100)
Naturopathy	72(62.6)	31(27.0)	9(7.8)	3(2.6)	115(100)
Nutritional medicine	73(64.6)	32(28.3)	7(6.2)	1(0.9)	113(100)
Osteopathy	89(78.1)	21(18.4)	2(1.8)	2(1.8)	114(100)
Reflexology	60(52.6)	45(39.5)	6(5.3)	3(2.3)	114(100)
Spirituality & faith healing	63(54.8)	31(27.0)	10(8.7)	11(9.6)	115(100)
Traditional Chinese medicine	90(78.3)	21(18.3)	3(2.6)	1(0.9)	115(100)
Other	3(60.0)	1(20.0)	1(20.0)	0(0.0)	5(100)

As can be seen in Table 20, the majority of respondents (more than 80%) indicate that they either don't know if their patients are using CAM, or estimate

that not more than 25% use it. An exception is African traditional medicine, where there is an almost even distribution of answers across the four categories. Spirituality and faith healing was also thought to be used by a majority of patients by 9.6% of respondents. 32.2% of respondents estimated that more than 25% of their patients used chiropractic.

4.5.3 Undergraduate medical curriculum

Respondents were asked whether training in CAM should be part of the South African undergraduate medical curriculum. 118 of the 127 respondents answered this question. 77(65.3%) indicated that they thought that it should be part of the curriculum.

4.6 Cross tabulations

Cross tabulations pertaining to demographics were discussed previously, refer to Tables 2 and 3.

Further cross tabulations were done using the independent variables of age and gender with the following dependent variables:

1) Personal experience
2) Training
3) Referral
4) Advice
5) Knowledge needed
6) Undergraduate curriculum

Most of the cross tabulations did not give results of any significance.

Tables 21 to 23 show results of interest, while Table 24 is the only cross tabulation with a significant p-value.

Table 21: Cross tabulation of gender and respondents need to know more about CAM

	Know more					
Gender	**Yes**		**No**		**Total**	
	Fr	% row	Fr	%row	Fr	%row
Female	31	93.9	2	6.1	33	100
% col	32.6		9.5		28.4	
Male	64	77.1	19	22.9	83	100
% col	67.4		90.5		71.6	
Total	95	81.9	21	18.1	116	100
% col	100		100		100	

p value : 0.015077

This table shows that 81.9% of the respondents wanted to know more about CAM. All but two of the female respondents, 93.9%, wanted to know more, while 77.1% of the male respondents wanted further knowledge.

Table 22: Cross tabulation of gender and personal experience

	Personal Experience					
Gender	**Yes**		**No**		**Total**	
	Fr	% row	Fr	% row	Fr	% row
Female	24	77.4	7	22.6	31	100
% col	34.8		17.1		28.2	
Male	45	57.0	34	43.0	79	100
% col	65.2		82.9		71.8	
Total	69	62.7	41	37.3	110	100
% col	100		100		100	

p value: 0.023702

Tables 22 and 23 show the relationship between their personal experience of CAM and the gender and ages of the respondents. A higher percentage of female respondents had CAM experience compared to the male, namely 77.4% versus 57.0% Over 70% of the GPs below the age of 50 years had personal experience with CAM. Only 40% had experienced it over the age of 50.

Table 23: Cross tabulation of age group and personal experience

	Personal Experience					
Age Group	**Yes**		**No**		**Total**	
	Fr	% row	Fr	% row	Fr	% row
Under 40 years	29	70.7	12	29.3	41	100
% col	42.0		29.3		37.3	
40 – 50 years	29	70.7	12	29.3	41	100
% col	42.0		29.3		37.3	
50 – 60 years	8	40.0	12	60.0	20	100
% col	11.6		29.3		18.2	
Over 60 years	3	37.5	5	62.5	8	100
% col	4.4		12.1		7.2	
Total	69	62.7	41	37.3	110	100
% col	100		100		100	

P: 0.0315

Table 24: Cross tabulation of gender and undergraduate curriculum

	Undergraduate curriculum					
Gender	**Yes**		**No**		**Total**	
	Fr	% row	Fr	% row	Fr	% row
Female	27	84.4	5	15.6	32	100
% col	35.5		12.8		27.8	
Male	49	59.0	34	41.0	83	100
% col	64.5		87.2		72.2	
Total	76	66.1	39	33.9	115	100
% col	100		100		100	

p value : 0.004667

Table 24 shows that there is a significant difference between male and female respondents as to whether they felt CAM should be included in the undergraduate medical curriculum ($p < 0.01$). Of the female respondents, 27 out of 32(84.4%) felt that CAM should be taught to medical students, while only 49 out of 59 (59.0%) of their male colleagues agreed.

5 DISCUSSION

5.1 Demographic profile of respondents

The demographic details of the responding GPs allow a profile of the study population to be formed. Although the study was restricted to a specific group within a defined area, namely general practitioners who belonged to four Gauteng IPAs, certain of these demographic findings make the study comparable to other study populations, and therefore certain findings may be generalizable.

The age of the respondents was shown to be important in a number of areas in the study. There was a wide age range, from 28 to 77 years. The average age was 44 years (mean 44.45).

The ages of the GPs were stratified into four groups, refer Table 1. The majority of respondents, 69.2%, were younger than 50 years old, leaving only 30.8% older than 50.

The literature gives widely variable findings as to the relationship between doctors' ages and their relationship with CAM. In Australia, one study in Victoria found that GPs favouring CAM tended to be older, while a Tasmanian study said they were younger[2'3]. An Italian study also inferred that greater acceptance was associated with younger age[4].

There is a pattern that emerges in this study of the younger doctors, under the age of 50, being overall more accepting of CAM than their older colleagues. This will be pointed out when it occurs with the different questions and variables.

Male GPs made up 71% of the 127 study respondents. According to the HPCSA, in 2002, 73% of the doctors in South Africa were male. This figure was 70% in

2006[1]. The study respondents were therefore representative of the South African medical population.

This high percentage of male doctors, compared to female doctors, can also be seen in many of the studies on doctors and CAM done internationally.

Membership of professional organizations was questioned in order to assess whether membership of any of the organizations had any relationship with the respondents knowledge and beliefs about CAM. SACMA was an organization for healthcare professionals who were interested in CAM, some of whom may also have practised certain of the modalities. Only one of the respondents was a member. The organization ceased to exist shortly after this study was done.

SAFP is an organization which aims to promote education and professional development of GPs[6]. It was included as this study population was GPs. Only 4% of respondents were members.

SAMA is an independent association for medical practitioners[7]. It was formed over the years by the amalgamation of various interest groups. 69.3% of the respondents were members. There was no statistical significance when organization membership was tabulated with other variables.

As this was a South African study, it could be expected that the majority of respondents had obtained their undergraduate qualifications from South African universities. 84.3% had done so, from seven universities. Almost half of these, 40.2% were Wits graduates, a figure most probably influenced by the study having been done in Johannesburg and two adjacent municipalities.

It was noted that none of the respondents had obtained their Undergraduate qualification from the University of the Transkei. It is not possible to comment on this as the reason is not known.

Respondents who had obtained their undergraduate qualifications from outside South Africa, had obtained them from institutions in seven different countries. All these countries were similarly represented.

Undergraduate qualifications were obtained over a period of six decades, between 1939 to 1998. The years of graduation were stratified into five groups, refer to Table 6.

Berman et al found that the number of years a doctor had been in practice was significant in their acceptance of CAM, with those practising for more than 20 years being least accepting[5]. 66.2% of the GP respondents had qualifications that were less than 20 years old when the study was done. When the year of qualification was cross tabulated with personal experience of CAM, over 80% of those who had had some form of experience with CAM had qualified from 1980 onwards. This indicated greater acceptance of CAM amongst more newly qualified respondents. This corresponded with Berman et al's findings.

The locations of the respondents' place of work were assessed as falling mostly into four municipal regions in Gauteng. All locations were then classified according to these regions, namely Ekurhuleni Metropolitan Municipality, City of Johannesburg Metropolitan Municipality (regions B and E), West Rand District Municipality and City of Johannesburg Metropolitan Municipality (regions D, F and G). These correspond to east, north, west, south and inner city of Johannesburg.

The West Rand District Municipality had the lowest number of respondents (10.2%), while the other three regions had similar numbers of respondents – Ekurhuleni 26.7%, City of Johannesburg Metropolitan Municipality (regions B and E) 22.8% and City of Johannesburg Metropolitan Municipality (regions D, F and G) 28.3%. This similarity is important as it indicates that GPs who participated in the study served different communities equally.

All these places of work were in urban areas. It is not possible to know whether the five respondents who indicated that they also worked outside of Gauteng worked in rural or urban practice there.

5.2 General practitioners' knowledge of, experience in and training in CAM

The respondents were asked to rate their knowledge of the listed CAM practices. As seen in Table 8, for every therapy the majority of respondents selected either 'Know nothing' or 'Know a little', indicating generally limited knowledge about CAM amongst most study respondents.

Only six (4.8%) respondents felt that they knew a lot about any of the modalities, namely massage, nutritional medicine and spirituality and faith healing. Over 70% of the respondents indicated that they knew nothing about Ayurvedic medicine, osteopathy and traditional Chinese medicine.

The legitimacy of the different CAM modalities was then questioned. Literature shows that different modalities are regarded as legitimate in different countries, but references pertaining to South Africa, or even Africa, could not be found.

Acupuncture, chiropractic, homeopathy, massage and nutritional medicine were considered to be legitimate forms of therapy by more than 50% of the GPs, while 20% considered African traditional medicine, aromatherapy, reflexology and spirituality and faith healing to not be legitimate. More than 60% of respondents did not know enough to judge the legitimacy of Ayurvedic medicine, osteopathy and traditional Chinese medicine, the same three therapies that respondents had already indicated that they knew nothing about.

The 1996 study by Wharton and Lewith stated that GPs views of CAM were most influenced by personal or family benefit from CAM, or by observed benefit to their patients[8]. This study therefore asked respondents if they had any personal experience of the use of CAM.

55.1% of those answering this question indicated that they had. The question did not ask them to clarify whether that experience had been their own or a family member's. The three most experienced, namely homeopathy, massage and acupuncture, are modalities already shown to be regarded as legitimate by the majority of GPs. The three least experienced were traditional Chinese medicine, naturopathy and osteopathy.

African traditional medicine, important in the South African context, had only been experienced by 19(27.1%) GPs. This indicates a gap between the experience of the respondents and a large percentage of their patients.

When the gender of respondents is cross tabulated with their experience of CAM, a higher percentage of females had had experience with CAM than male.

84.0% of those who had experience with CAM were under 50 years old. This is an indication that there were more proponents of CAM among the younger respondents than the older.

Discussing aspects of CAM with patients was the next question asked. Only 40% of the 115 GPs who answered this question indicated that they felt that they knew enough to discuss some aspects of CAM with their patients. This is fewer respondents than had experienced it. We can infer from this that certain respondents did not feel that they knew enough to discuss with their patients even though they had personal experience with it.

Those respondents who felt able to discuss CAM were then asked to indicate which of the modalities they would discuss. More than 50% of the respondents indicated that they felt able to discuss acupuncture, homeopathy and nutritional medicine. Once again, Ayurvedic medicine, naturopathy, osteopathy and traditional Chinese medicine were selected as the modalities which would be least discussed.

Formal training in CAM was the next questions put to the respondents. Only 19 (15.0%) of the GPs had any formal training in the field. The most popular modalities were acupuncture (63.2%), homeopathy (31.6%) and nutritional medicine (26.3%).

Lectures and workshops were the commonest form of training for all modalities. A few respondents indicated that they had made use of self study, and only three had obtained diplomas. It is possible that a respondent could have had more than one type of training in any particular modality. References to this question could not be found in the literature.

From the answers to the questions in Section 5.2, it can be seen that acupuncture, homeopathy, massage, nutritional medicine and spirituality and faith healing are the modalities most commonly known and used by the respondents. Ayurvedic medicine, naturopathy, osteopathy and traditional Chinese medicine are least known and used, or to be considered legitimate.

When analysing the results for African traditional medicine, important in the South African context, the picture emerges of a CAM modality that is neither well known nor well used. Only 19 respondents have experienced it, 23 think that they know about it but only 10 feel able to discuss it with their patients. It's not regarded as a legitimate form of therapy by 29 respondents and only 12 refer their patients to it's' practitioners. However, more positively, as will be shown in Section 5.3, 86 respondents do recognise that their patients use African traditional medicine and 69 want to learn more about it.

5.3 General practitioners' attitude towards CAM

Respondents were asked whether or not they referred their patients to CAM practitioners. 57.8% of the GPs who answered this question indicated that they did. Referrals were most commonly made to acupuncturists, chiropractors and homeopaths. The practitioners least likely to be referred to were Ayurvedic

medicine practitioners, osteopaths, naturopaths and traditional Chinese medicine practitioners.

Respondents under the age of 50 were more likely to refer their patients than their older colleagues. This correlates with younger doctors having more personal experience with CAM, as discussed previously. There was no difference in referral practices between male and female respondents.

International research has shown that the majority of patients consulting CAM practitioners do so without the knowledge of their medical practitioners. Respondents were asked how they felt about their patients consulting with CAM practitioners. The majority of respondents responded positively, with 12.6% being accepting and 73.2% were accepting, as long as it does no harm, indicating that they still had some doubts.

This acceptance of their patients consulting CAM practitioners is also reflected in the high percentage of respondents who were willing to refer their patients to these practitioners, as noted previously.

When asked whether they would accept advice from CAM practitioners or not, 81.0% indicated that they would. As with previous questions, accepted modalities were acupuncture, chiropractic and nutritional medicine. Advice would not be least acceptable from osteopaths, naturopaths and traditional Chinese medicine practitioners.

Over 80% of the responding GPs felt that they needed to learn more about CAM. A positive result is that, for every CAM modality, at least 50% of the respondents wanted to learn about it. This indicates a widespread need for CAM education, in all modalities, not just the more popular modalities of acupuncture, homeopathy and nutritional medicine. Significantly, 72.6% wanted to learn more about African traditional medicine.

Short course/ workshop and journal based CPD were the most favoured forms of CAM education, probably reflecting the limited time available to most of the respondents.

5.4 Perceptions of CAM

When asked to indicate their agreement with seven statements regarding CAM, many of the respondents show indecision, refer Table 19. While the majority feel that CAM does have a place in medicine, many couldn't decide whether it had any scientific basis, what it could be used for or if it was even safe for their patients. This indecision probably reflects a lack of knowledge, and the desire for further education about the CAM modalities, as already discussed.

The literature reflects that internationally, doctors are questioning if western medicine has become less caring, so it was interesting that equal numbers of respondents agreed with, disagreed with and were undecided about whether CAM was more caring than western medicine.

When asked to estimate how many of their patients used CAM, the majority of respondents either didn't know or thought that it was less than 25%. This indicates that these respondents are not talking to their patients about CAM, possibly because they don't know much about it or have never experienced it. It can also be inferred that the patients are not telling their GPs if they are also using CAM.

When asked whether training in CAM should be part of the South African undergraduate medical curriculum, 65.3% of respondents felt that it should. This question was placed at the end of the questionnaire, allowing the respondents to have first considered their own knowledge, attitudes and learning needs, before deciding whether or not they thought future medical students should have training in the field of CAM.

5.5 Study biases and limitations

A limitation of this study was that there was a long period between the data collection and the report presentation. This was due to the author having had two children and episodes of ill health. Literature searches indicated that, at the time the report was written, there had still been no research done on the subject in South Africa.

Other limitations were that a convenience sample was used (refer pg17) and that the measuring tool was a self-administered postal questionnaire (refer pg18).

A bias that must be noted was that there was no follow up done with non-responders to the questionnaire. People who feel strongly about a subject, either for or against, are more likely to respond to such a questionnaire than people with little interest in that subject.

6 CONCLUSION

The aim of this study was to establish Gauteng general practitioners' knowledge, attitudes and perceptions of complementary and alternative medicine.

It was shown that there was little knowledge of or experience with many of the modalities. As a result, many of the study participants were ambivalent about CAM and its' practitioners. Some participants held fairly negative perceptions, even indicating that CAM modalities were not legitimate forms of therapy. It was, however, positive to note that the majority of the GPs wanted to learn about all CAM modalities.

Younger doctors were more open to CAM, probably due to greater exposure to the modalities growing up as CAM usage has greatly increased over the past few decades. The future management of their patients will benefit from this.

There is a great need for the education of doctors about CAM. Without this knowledge, doctors are unable to effectively communicate with their patients about an aspect of their health care that is becoming increasingly important. Many patients are already using these modalities without the knowledge of their doctors, a situation which can potentially compromise their health.

It is recommended that further research be done on this subject, preferably on a national level, and involving both specialist and GPs. Only then will a complete picture of the learning needs of South African doctors be obtained. Recommendations could then be made to South African universities as to the need for integration of the teaching of CAM into the undergraduate curriculum.

Doctors trained in allopathic medicine, with a good knowledge of complementary and alternative medicine, would practice truely integrated medicine, and this can only benefit our patients and their wellbeing.

APPENDICES

Appendix 1: Ethics Clearance Certificate

Appendix 2: Questionnaire and covering letter

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