

A prospective, epidemiological pilot study to investigate the level of knowledge of homeopathy and its contextualization in pharmacy front shop assistants in the Kwa Zulu Natal area.

by

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Master's Degree in Technology: Homeopathy in the Department of
Homeopathy at the Durban Institute of Technology.

I, Lecia de Villiers declare that this mini-dissertation represents my own work
in both conception and execution.

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DEDICATION

I would like to dedicate this research to my family and friends who supported me on all levels throughout this course and whose care made it all possible.

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My sincerest gratitude to my friend and colleague, Janet Tatalias, for her continued encouragement.

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ABSTRACT

It was my perception, after having worked in the Complementary and Alternative Medicines Industry, that the knowledge and understanding of homeopathy by retail providers, was poor. Considering that pharmacies also sold over-the-counter homeopathic medicine, I felt it would be of value to do an empirical study in order to obtain more accurate data on this topic.

A questionnaire was compiled and administered to pharmacy front shop assistants working in pharmacies within the Durban metropolitan area of KwaZulu Natal. A maximum of two participants per pharmacy were permitted to participate. The pharmacies were plotted into 6 regions within KwaZulu Natal and the sample group was proportionately calculated.

Each pharmacy was visited, permission obtained from the pharmacist or owner and the questionnaire was given to the participants who were asked to complete the questionnaire. The questionnaire was collected by the researcher once telephonic confirmation of completion was obtained by the researcher. This method of administering the survey ensured a relatively high amount of completed questionnaires (49).

The responses confirmed the initial perception that there is a poor level of knowledge regarding homeopathy by pharmacy front shop assistants albeit that 51% of the respondents had received training on OTC homeopathic products by company representatives.

One would expect that if the level of knowledge of homeopathy is poor, that it would not be utilized or recommended for ailments; however the survey indicates

to the contrary, with homeopathic OTC's being used for a wide range of ailments. Referrals to homeopaths are uncommon (24%) with the majority of respondents opting to refer to a General Practitioner (59%). These figures correlated with personal consultation percentages being low with only 22.4% of respondents having ever consulted a homeopath.

Generally one would consider that if respondents have poor knowledge of homeopathy, that they would not be convinced of its efficacy and would probably not utilize it; however again the respondents surprised the researcher with the majority of respondents (91.8%) indicating that they think homeopathy is effective and 73.5% of the respondents having used homeopathic medicines, presumably self prescription OTC's.

Many respondents attributed the efficacy of homeopathic medicines to the use of herbs, followed by the principle of 'like cures like'. At face value it was encouraging to see that respondents knew of the principle of 'like cures like' since it is one of the cornerstones of homeopathic philosophy; however on closer examination of the data it was determined that the respondents had misinterpreted the principle and superimposed it onto label identification and ailment description. This single factor made the knowledge scores appear higher than they actually are.

It is encouraging to see that 95.9% of respondents felt they needed further training on the subject of homeopathy which provides a means for remedying this potentially damaging situation.

The profession needs to work alongside those in industry to assure the future of homeopathy. The public needs to be made aware of the fact that a trained

pharmacist or medical practitioner dispenses allopathic medicines and the same premise needs to apply to homeopathic medicines.

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GLOSSARY:

1. 'Poor' and 'Good' Knowledge

Knowledge in context with this research is related to three key components of homeopathy: a) Like cures like b) Small dose is used; c) Shaken vigorously.

If the respondent did not understand these three fundamental or basic concepts to homeopathy, their answers provided in the questionnaire would have been incorrect resulting in a low level of knowledge score. This would constitute 'poor' knowledge of homeopathy.

If the respondent had an understanding of some of the three concepts, their knowledge score would have been statistically equal to the standard median of 40% indicating a 'basic' or average level of knowledge of homeopathy.

Any scores higher than 40% were considered 'good' levels of knowledge.

2. Homeopathy and Complementary and Alternative Medicine (CAM)

"CAM is a broad domain of healing resources that encompasses all health systems, modalities, and practices and their accompanying theories and beliefs, other than those intrinsic to the politically dominant health system..."

Homeopathy is classified as CAM due to the fact that it is used as an alternative to (instead of) allopathic medicine or is used as a complementary to (with) allopathic medicine. All references made to CAM within the dissertation are applicable to homeopathy since any changes or influences within the field of CAM have an effect of some description on the profession of homeopathy.

3. Pharmacy front shop assistant

Pharmacy front shop assistants order and receive stock and supplies, sell over-the-counter medications, give basic sales advice and service to the public and perform other duties under the direction of a pharmacist.

Chapter One

Introduction

1.1 Introduction

In order to contextualise this study it is important to approach a definition of complementary medicine. This concept as adopted by the Cochrane Collaboration accordingly. "Complementary and Alternative medicine (CAM) is a broad domain of healing resources that encompasses all health systems, modalities, and practices and their accompanying theories and beliefs, other than those intrinsic to the politically dominant health system of a particular society or culture in a given historical period." (cited by Zollman and Vickers 1999).

CAM includes all such practices and ideas self-defined by their users as preventing or treating illness or promoting health and well-being among the group of people under study. As a result the boundaries within CAM and between the CAM domain and that of the dominant allopathic (conventional) system are not always sharp or fixed as they are always in flux and dependant on the population or society under study (Zollman and Vickers 1999).

In addition to this Zollman and Vickers (1999), state that "CAM refers to a group of therapeutic and diagnostic disciplines that exist largely outside the institutions where conventional health care is taught and provided. In the 1970s and 1980s these disciplines were mainly provided as an alternative to conventional health care and hence became known collectively as "alternative medicine". The adjective "complementary" developed as the two systems began to be used alongside (to "complement") each other. Over the years, "complementary" has changed from describing this relation between unconventional healthcare disciplines and conventional care to defining the group of disciplines itself."

Homeopathy is referred to by Zollman and Vickers (1999) as one of the “major (complementary) therapies”, alongside osteopathy, chiropractic, acupuncture and herbal medicine as these tend to be more developed because of high level of training offered in this field as well as regulatory standards in the form of councils, accrediting bodies and professional standards.

They go on to say that, “Many complementary practitioners are not obliged to join any official register before setting up practice. However many practitioners are now members of appropriate registering or accrediting bodies.”

Another term for complementary medicine is holistic medicine and Zollman and Vickers (1999) state that this epitomises many, but not all complementary practitioners, in that they have a multifactorial and multilevel view of human illness. Disease is thought to result from disturbances at a combination of physical, psychological, social, and spiritual levels. The body’s capacity for self repair, given appropriate conditions is emphasised.”

Zollman and Vickers give Rudolph Steiner’s central tenets of anthroposophy as an example of a holistic approach and these are:

- Each individual is unique.
- Scientific, artistic, and spiritual insights may need to be applied together to restore health.
- Life has meaning and purpose—the loss of this sense may lead to a deterioration in health.
- Illness may provide opportunities for positive change and a new balance in our lives.

Accordingly, complementary practitioners may have a different categorisation of illness which may lead to difficulty when comparing allopathic and complementary treatments in defined patient groups. Terminology and ideas can also be markedly different which leads to further confusion and

misunderstanding between these two groups of treatments (Zollman and Vickers 1999). For example when a homeopath refers to constitution, they are generally referring to “the totality of a patient’s mental, and physical characteristics over a long period of time” (Bailey 1995: xi) and the method of treatment is largely reliant on this information; however an allopathic practitioner would regard a person’s constitution as, “the make-up or functional habit of the body” (*Dorland’s Medical Dictionary* 1980:164).

In this respect research by Ernst, Cohen and Stone (2003) refers to CAM as “holistic” and therefore needs to be accessed and regulated according to different parameters from allopathy.

Many proponents of CAM are keen to point out the holistic nature of CAM and claim that some of its therapeutic benefits may occur on levels not readily accessible by quantitative measurements (Haw, 2004). The whole ethos of evidence based medicine, however, crucially depends on reproducible, quantifiable outcomes and therefore that which is not measurable tends to be denied existence (Kreitzer and Mitten, 2005). This situation may create an ethically questionable bias within mainstream medicine against areas of medicine in which outcomes cannot be adequately quantified or defined. Moreover, the "clash in paradigms" makes it difficult to compare "evidence" across conventional and CAM therapies: CAM may have notions of efficacy that operate on different principles and on spiritual, rather than solely physical levels as found in allopathic medicine.

Notwithstanding this clash in paradigms within the health community, world wide there has been an upsurge in the popularity of CAM use. In the United States there was an increase in the use of CAM therapies from 33.8% in 1990 to 42.1% in 1997 (Eisenberg, Davis, Ettner, Appel, Wilkey, Van Rompay and Kessler, 1998). In this respect Homeopathy was amongst the therapies listed which had experienced the most increase. Extrapolations from research conducted by Eisenberg, Kessler, Foster, Norlock, Calkins and Delbanco (1993) suggested that the United States population would have an increase of 47.3% in total visits to CAM practitioners, rising from US \$427 million in 1990

to US \$629 million in 1997, thereby exceeding total visits to all US primary care physicians in the same time period.

Thus it would seem that estimated expenditures for CAM professional services increased by 45.2% between 1990 and 1997 and were conservatively estimated at US \$21.2 billion in 1997, with at least US \$12.2 billion spent out-of-pocket. Total 1997 out-of-pocket expenditures relating to CAM therapies were conservatively estimated at US \$27 billion, which is comparable with the projected 1997 out-of-pocket expenditures for all US physician services (Eisenberg, et al. 1998).

In support of the high out of pocket expenditures, all surveys on this topic show that (at least in the industrialised countries), CAM users tend to belong to the affluent, well educated classes. This supports the claims that CAM is by and large private medicine for which consumers pay substantial amounts out of their own pockets (Eisenberg, et al 1990).

Eisenberg et al. (1998) suggested that it could be inferred that CAM use and expenditure increases from 1990 to 1997 could be attributable primarily to an increase in the proportion of the population seeking alternative therapies, rather than increased visits per patient in the United States.

Similarly in the United Kingdom, retail sales of CAM totalled £93 million in 1998, with £23 million being made up of homeopathic medicines. Overall retail sales in 2000 were predicted to reach £109 million and predictions for 2002 were £126 million

(<http://www.publications.parliament.uk/pa/ld199900/ldselect/>, 2005).

In congruence with this, research conducted by Kayne, Beattie and Reeves (1999) found that, according to the Association of the British Pharmaceutical Industry (ABPI) (1995), the United Kingdom market for all over-the-counter (OTC) pharmaceuticals was estimated at £1.24 billion or approximately 10% of the total UK pharmaceutical market (Kayne et al. 1999). The market for homeopathic remedies in 1999 was estimated at around £18-20 million of

which about £9 million was OTC, the remainder being prescribed by homeopathic practitioners.

Kayne et al. (1999) went on to say that although the OTC market for homeopathic remedies is small (less than 1% of the UK pharmaceutical market); it was still significant for the following reasons:

- ☑ The growing acceptance of complementary treatments by health professionals and the public;
- ☑ The increasing number of people now using such treatments on a regular basis;
- ☑ The effect of CAM interventions on health status;
- ☑ The high usage of CAM by older people, women, and health practitioners.

This is supported further by consumer surveys conducted in the Netherlands and Belgium which show that 60% of the public are willing to pay extra health insurance premiums to access CAM medicines more readily (cited by Fischer and Ward, 1994). In addition it has been shown that in France Homeopathy is the most popular form of CAM therapy and its statistics show a 20% increase in use from 1982 to 1992 and the total European OTC market for homeopathy was £590 million in 1991 (Fisher and Ward, 1994).

Due to this increased demand for CAM in Europe, the need for appropriate regulations was highlighted and subsequently new medicines regulations are being investigated in Europe

(<http://www.publications.parliament.uk/pa/ld199900/ldselect/>, 2005).

Thus from the developments within CAM and as a result of consumer demands, the boundary between complementary and conventional medicine is constantly shifting. Within the last few years however the shift in the relationship between allopathic medicine (AM) and CAM sectors have become more marked. For example, although osteopathy and chiropractic are still generally considered CAM therapies in Britain, they are included as part of

standard care in guidelines from allopathic medicine bodies such as the Royal College of General Practitioners (Zollman and Vickers, 1999).

In a similar manner to South Africa's international counterparts, South Africa showed in a recent market survey by the Health Products Association (HPA) of South Africa, that there was an increase in sales of 17.9% and an average 43.3% mark-up from 2001 to 2003, with respect to CAM products. This growth indicates that CAM is increasing faster than allopathic medicine in the South African context (Tomlinson, 2005). According to New United Pharmaceutical Distributors in South Africa CAM is one of the fastest growing elements in South Africa (www.upd.co.za, 2005) and has thus led to an increase in demand for complementary medicines as a viable and profitable alternative to prescription medication; hence increasing the capacity for OTC homeopathic medicines.

When analysing these results more closely, it can be seen that in 2003 South Africans spent over R1.9 billion on natural health care products of which more than R61 million was spent on OTC homeopathic products, an increase of 16.4% on figures received from a similar survey conducted in 2001 (Tomlinson, 2005). The survey also showed that the homeopathic sector accounted for 4% of total market sales with a 23.9% increase in homeopathic remedies sold from 2001 to 2003. A total of 67% of the OTC homeopathic products sold were homeopathic remedies, the remaining portion comprising anthroposophicals (15%), homeopathic creams (11%) and tissue salts (7%).

Interestingly and different from our international counterparts, CAM practitioners accounted for only 1% of total distribution of natural health care products, with the predominant means of distribution constituting different sectors of the retail market, specifically direct sales (26%) in supermarkets and hypermarkets (25%), pharmaceutical wholesalers (12%), pharmacies (21%), health shops (4%), export sales (2%) and other (9%). This is contrary to the more evenly distributed UK ratio of homeopathic OTC sales (£9 million) to practitioner prescriptions (£9-11 million) (Kayne and Beattie, 1999); however it seems to parallel the United States trend (Eisenberg et al. 1998) of

increased consumer use and expenditure of CAM in isolation of practitioner prescription.

These results indicate that a large portion of homeopathic sales are occurring in health sectors which do not necessarily have a qualified Homeopath present who can advise and guide the purchasing of appropriate homeopathic medicines. This is of concern for the profession of Homeopathy as the level of understanding regarding the principles and practice of Homeopathy by the public including that of people selling homeopathic medicines has not been established. The possible consequences of a lack of understanding could include incorrect diagnoses (with potentially harmful consequences if patients are incorrectly medicated), adverse reactions to medications and incorrect medications utilised. In addition, the random use of homeopathic medicines in conjunction with other medications, without appropriate knowledge and training can complicate the patient's symptoms and jeopardise the patient's health (http://www.vithoulkas.com/homeopathy_EN/faq.html#6 2005).

Thus as a result of misinformation or misunderstanding, ethical as well as potentially legal consequences could result not only for the patients, but also for the advisers, retailers and suppliers. This situation is further complicated by the fact that presently, under current legislation, there is no provision for dealing with complementary and traditional medicine (www.doh.gov.za, 2005), in terms of a regulatory framework in order to protect patients. Currently homeopathic OTC's are not classified as medicines and hence are available without a prescription and can be retailed at any profit margin.

Further compounding the above situation is the fact that some doctors are starting to become more familiar with homeopathy and a few are recommending homeopathic OTC medicine concurrently with allopathic treatment (Thomas, Fall, Parry and Nichol, 1995). This scenario allows patients to be able to purchase their prescribed OTC homeopathic medicine at the pharmacy when receiving their prescribed allopathic medication from

the pharmacist, thus reducing the need for a homeopathic practitioner hence further emphasizing the importance of understanding homeopathic principles on the part of pharmacists and / or front shop assistants.

South Africa has followed the European trends with the Ministry of Health currently revising the 1965 Medicines regulatory system; however this is still to be implemented. Two of the main provisions for the new proposed bill are that there is control of orthodox medicines, CAM medicines, veterinary medicines, scheduled substances and medical devices as well as control of persons who may compound and dispense orthodox medicines, CAM medicines and veterinary medicines (www.doh.gov.za, 2005). These provisions in the new bill address to their maximum extent some of the concerns of unregulated dispensing of CAM medicines. On a pragmatic level, it is of benefit for the homeopathic profession to be aware of the level of knowledge and accuracy of information being conveyed to the public from the pharmacy front shop assistants who deal with OTC homeopathic medications, as appropriate recommendations could be made through the appropriate legislative bodies in support of the new bill in order to strengthen and maintain professional standards.

In addition it would stand to reason that it would be appropriate to determine the knowledge levels of such individuals in order to determine appropriate training and subsequently to minimise the risks discussed above, or alternatively to regulate the industry more rigorously from a legal perspective. This is especially true in view of the growth that is driven by people who wish to take responsibility for their health and well-being and recognise that CAM plays an important role in preventative and promotive health. This is in accordance with World Health Organisation (WHO) trends that estimate that 65-80% of the world's population uses CAM as their primary form of health care (www.hpasa.co.za 2005).

Therefore the aim of this research was to investigate the level of knowledge of homeopathy and its contextualization in pharmacy front shop assistants in the Kwa Zulu Natal area, by means of a prospective, epidemiological pilot study.

1.2 Aims and hypotheses of this study

This prospective, epidemiological pilot study was aimed by means of a self-administered questionnaire to investigate the level of knowledge of homeopathy and its contextualization in pharmacy front shop assistants in the Kwa Zulu Natal area and in so doing to collect information which will allow for future improvement of service given to consumers.

This was achieved by addressing the following objectives:

Objective 1: To develop a profile of pharmacy front shop assistants in terms of demographic factors including but not limited to gender, age, language, ethnicity and level of education.

Hypothesis 1:

The profile of the pharmacy front shop assistants will be similar to currently available literature.

Objective 2: To determine the level of understanding of homeopathy amongst pharmacy front shop assistants

Hypothesis 2:

The level of understanding of homeopathy amongst pharmacy front shop assistants will be poor.

Objective 3: To assess the role of the demographic factors (objective one) in terms of their influence of the understanding of homeopathy amongst pharmacy front shop assistants.

Hypothesis 3:

There will be a relationship between the demographic factors and the level of understanding of homeopathy amongst pharmacy front shop assistants.

1.3 Rationale for the study

- To provide clear and valid information regarding the understanding of the principles and concepts of homeopathy by pharmacy front shop assistants. Previous South African surveys concerning perceptions and attitudes towards homeopathy and CAM have been conducted on other population groups (Wortmann, 1996; Daphne, 1997; Small, 2004); however the level of knowledge of homeopathy and its contextualization with respect to pharmacy front shop assistants has never been investigated.
- To collect information which can highlight problem areas in the understanding of homeopathy in the public sector, specifically pharmacy front shop assistants with the aim to highlight possible inconsistencies and irregularities of knowledge. Thereby creating awareness in the public sector that the understanding and application of homeopathy is vast and requires professional input from a qualified homeopath.
- To ascertain whether further training is required in the public sector, viz. pharmacy front shop assistants in order to maintain or obtain a standard of knowledge of homeopathy. This is important in order to emphasize that homeopathy is a recognised and regulated form of CAM and requires respectful use in order to avoid harm and discontent amongst users.
- To provide data to allow for further areas of research and education in this field so as to help in improving the professional standard of homeopathy.

1.4 Limitations

Due to the lack of globally accepted terminology and regulations regarding CAM, results obtained from this survey may not always be reliable in so far as terminology used in the questionnaire may have been misinterpreted. This may possibly be due to terminology being open to interpretation by the participant based on previous exposure or lack thereof by the participant. For example some participants may have regarded 'safety' as only applicable to medication which has undergone clinical trials and has regulated manufacturing standards and hence in this case may automatically have presumed that homeopathy is unsafe according to this context. Other interpretations may have been that 'safety' pertains to side-effects, CAM-drug interactions, dosage and the like.

It was also difficult to control the amount of time allowed for participants to complete the questionnaire as many of the participants had to complete the questionnaire outside of working hours. This meant that questionnaires were taken away from the workplace which resulted in a general unwillingness to complete something which is considered work related in the participants personal time. This may have lead to rushed answering, mistakes and inaccurate information.

Due to the fact that many participants took their questionnaires home, it was impossible to limit contact and interaction with others which may have lead to possible collaboration in answering of questions.

It was also impossible to guarantee that participants did not collaborate with one another; specifically in the cases where 2 participants took part from the same pharmacy.

1.5 Benefits

This study will provide a basic idea of what the current level of knowledge of homeopathy is amongst pharmacy front shop assistants and possibly highlight problem areas. The pharmaceutical, medical and complementary field all stand to benefit from the information obtained from this study as well as the public who are directly affected by these fields.

1.6 Conclusion

In order to elaborate on the study, Chapter Two will be utilized to give an overview of relevant literature, with Chapter Three indicating the materials and methods applicable to this study. Chapter Four presents the results attained from the statistical analysis of the data, as well as the discussion of the trends observed in the results. Chapter Five completes the dissertation with the conclusions of this study and recommendations for future studies in this field.

Chapter Two

Literature Review

2.1 Introduction

This chapter will discuss the current literature pertaining to the development of CAM globally as well as in South Africa and how this represents the development of homeopathy as a profession and as a member of the CAM professions. Thereafter the effects of these changes within the CAM professions will be addressed highlighting the possible concerns that stem from these developments which will be concluded with particular reference to the pharmacy front shop assistants.

2.2 CAM globally

Due to the fact that there is no specific globally agreed upon definition for CAM and that CAM is variable from country to country with differing legislation, it is difficult to clearly assess the global significance of CAM (PM-WHO Traditional_medicines_legal_status.pdf); however there are a few factors which contribute to CAM which can be used to observe trends and these are:

- a) Over-the-Counter (OTC) complementary medicines sales;
- b) CAM practitioner qualifications which are registered with associations or councils;
- c) CAM practitioner visits from surveys;
- d) CAM demand by the public from surveys;
- e) Knowledge of CAM by practitioners, pharmacists and other in medical sector (surveys).

In the United States there was an increase in the use of CAM therapies from 33.8% in 1990 to 42.1% in 1997 (Eisenberg, et al. 1998). Extrapolation to the population suggests that in 1990 Americans made an estimated 425 million visits to providers of unconventional therapy. This number exceeds the

number of visits to all United States primary care physicians (Eisenberg, et al.1990).

Expenditures associated with use of unconventional therapy in 1990 amounted to approximately US \$13.7 billion, three quarters of which (US \$10.3 billion) was paid out of pocket. This figure is comparable to the US \$12.8 billion spent out of pocket annually for all hospitalizations in the United States (Eisenberg, et al. 1990). The prevalence of use of CAM in the United States is attributed to an increase in the proportion of the population seeking alternative therapies rather than increased visits per patient (Eisenberg, et al. 1998).

According to the survey conducted by Eisenberg, et al. (1993) in the United States the most prevalent use of CAM occurs amongst middle-aged Caucasian people who are educated and earn more than average.

“The frequency of use of unconventional therapy varied somewhat among sociodemographic groups, with the highest use reported by non-black persons from 25 to 49 years of age who had relatively more education and higher incomes. The majority used unconventional therapy for chronic, as opposed to life-threatening, medical conditions. Among those who used unconventional therapy for serious medical conditions, the vast majority, 83%, also sought treatment for the same condition from a medical doctor; however, 72% of the respondents who used unconventional therapy did not inform their medical doctor that they had done so.”

A survey conducted by Kayne, Beattie and Reeves (1999) was specifically aimed at assessing the buyers of homeopathic medicines (as opposed to CAM in general as per Eisenberg, 1993) in British pharmacies. The percentage of male respondents (21.4%) was significantly less than that of female respondents (77.9%). Most respondents bought the homeopathic OTC medication for themselves (64.1%). The respondents were predominantly between the ages of 46-60 followed by the over 60 age group; thus predominantly the occupations of the users were identified as retired

persons (15%) and housewives (13.8%). There was also a high amount of health care professionals, complementary medicine practitioners and people from other professional occupations which also indicated that buyers of homeopathic medicines tend to be of a higher socioeconomic grouping. They suggested that because buyers tended to be from a higher socioeconomic group and well educated, they were intelligent enough to become well informed about their homeopathic medicines and be in a position to make a sensible assessment of the products.

The most common ailment for which homeopathic OTC's were used was for coughs and colds (17%). The most popular form of homeopathic OTC's purchased were polychrests (57%) which are simplexes. In comparison, complexes only comprised a low 18% of homeopathic OTC sales.

In the United States, homeopathic remedies are allowed by the virtue of the 1939 Food and Drug Act and are available over the counter (Jonas, Kaptchuk and Linde, 2003).

CAM in health professions education has undergone great change as results from previous surveys show that the number of United States medical schools offering CAM courses has increased from 45 schools to 98 schools within a period of 4 years (<http://www.nap.edu/books/0309092701/html/226.html> 2005).

According to research conducted by Mills, Ernst, Singh, Ross and Wilson (2003), the knowledge of CAM by health shop assistants in Canada is received from books (35%), suppliers (15%), formal education (9%), in-store training (6%) and undisclosed sources (35%).

In the United Kingdom, retail sales of CAM totalled £93 million in 1998, with £23 million being made up of homeopathic medicines. Overall retail sales in 2000 were predicted to reach £109 million and predictions for 2002 were £126 million (<http://www.publications.parliament.uk/pa/ld199900/ldselect/2005>).

Very few doctors practice CAM in United Kingdom hospitals and the health professionals who practice CAM do not legally require CAM qualifications. There is however growing regulation of CAM practitioners. CAM reimbursement by the NHS (National Health Services) in the United Kingdom is highly variable geographically. The therapies most commonly reported by users in the United Kingdom are homeopathy, osteopathy, chiropractic, acupuncture and aromatherapy (Dixon, Riesberg, Weinbrenner, Saka, Le Grand and Busse, 2003).

In the survey conducted by Kayne, Beattie and Reeves (1999), it was clear that respondents were generally confident on their remedy selection, however even in this more educated group there were occasions where respondents (50%) did seek help from pharmacy staff or the pharmacist and this highlights again the need for adequate and accurate training regarding the use of homeopathic OTC's. Few respondents (7%) said they were influenced by factors such as pharmacy staff or advertising (regarding choosing homeopathy as their treatment of choice) and they mostly chose to use homeopathic remedies because they always use them or they were advised by someone else to use them; however advice on specific remedy selection was obtained from a variety of sources, the most important being the buyers own knowledge followed by their doctor and the community pharmacist. Some respondents also indicated that they liked the comfort of a confirmatory word from the pharmacist or another member of staff when buying untried medicines. The fact that patients consulted their doctors and pharmacists for advice would suggest that some form of basic homeopathic training should be made available to all medical students as well as to pharmaceutical students and staff.

The University of Southampton provides special study modules for medical students in their third year (Owen, Lewith and Stephens, 2001). According to research conducted by Owen, et al (2001), several thousand United Kingdom medical practitioners belong to medical organisations offering training, accreditation, and regulation in CAM. Training focuses on two aspects, a basic or primary healthcare qualification, which gives an introduction to a subject

and provides skills to work with a basic level of competence followed by intermediate training involving a further two years of part time learning. A third level of specialist training based on supervised experience and incorporating continuing professional development (CPD) is also emerging. Similar comments are made by Fisher and Ward (1994) about the prevalent use of CAM therapies by medical practitioners.

“Complementary or unconventional treatments are used by many doctors and other therapists throughout Europe. The major forms are acupuncture, homeopathy, manual therapy or manipulation, and phytotherapy or herbal medicine”

The research by Owen, et al. (2001) also emphasized the significance of homeopathy in the United Kingdom due to the fact that it is covered by National Health Service (NHS) if it is rendered by a medical doctor registered as a homeopath; hence making homeopathic medicines available on the public health scheme and so they do not have to claim from their medical aid which covers private health.

“Homeopathy is one of the most established complementary and alternative medicines (in the United Kingdom) in that it has been incorporated into the NHS since its inception. Five NHS homeopathic hospitals now exist as well as a Faculty of Homeopathy established by an act of parliament.”

According to Kayne, Beattie and Reeves (1999), the high degree of satisfaction with the response to questions posed to pharmacists by customers may indicate that the undergraduate and postgraduate training programmes are proving beneficial. All the major pharmacy groups are currently improving the in-house training given to pharmacy staff on homeopathy and other complementary treatments.

In the survey conducted by Kayne, et al. (1999), it was stated that the majority of homeopathic medicines are classed as GSL (General Sale List) and hence are distributable through health stores and groceries as well as pharmacies. Homeopathic medicines are considered to be medicines under United

Kingdom law and health professionals feel that sales of all medicinal products should be restricted to places where professional advice is available. A further issue is that of licensing regulations. Most respondents, both professional and members of the public, said they were taking homeopathic medicines alone. This suggests that homeopathic medicines are being used in an alternative way in the OTC environment, i.e., as substitutes for allopathic medicines.

Virtually all surveys show that, in industrialised countries, CAM users tend to belong to the affluent, well educated classes.

Due to the fact that there are relatively few medical doctors registered as homeopaths, most homeopathic consultations are with non-medical doctor homeopaths, which is effectively within the sphere of private medicine for which consumers pay substantial amounts without reimbursement from the National Health Service (Eisenberg, et al. 1998).

Consumer surveys conducted in the Netherlands and Belgium show that 60% of the public are willing to pay extra health insurance premiums to access complementary medicines more readily (cited in Fischer and Ward, 1994).

Germany has the highest utilization of natural remedies in Europe and more than 10% of qualifications for naturopathy, homeopathy and chiropractic are documented in the inpatient sector. CAM practitioners must pass an examination set by the local authority but do not require any special training. German data also shows that reimbursement of CAM products by health insurance funds has declined. The OTC market in CAM pharmaceuticals has been almost constant. Germany has also been linked to having a high level of integration of CAM into conventional medicine, with medical insurance coverage of CAM as well as CAM being part of medical training and examination since 1993 (Dixon, et al. 2003).

In France, Spain and Belgium, the activities of non-medically qualified CAM practitioners are illegal; however homeopathy is the most popular form of complementary therapy in France, with its use rising by 20% in 10 years. Over

80% of homeopathic medicines are dispensed on prescription rather than over the counter (Fisher and Ward, 1994).

The total European over the counter market for homeopathy was £590 million in 1991, compared with £1.45 billion for herbal medicines. The United Kingdom has among the lowest per capita spending in the European Union for over the counter homeopathy, but the British market is growing by 20% a year (Fisher and Ward, 1994).

According to statistics available on the World Health Organization (WHO) website, CAM use is prevalent globally.

“In Europe, North America and other industrialized regions, over 50% of the population have used complementary or alternative medicine at least once. In San Francisco, London and South Africa, 75% of people living with HIV/AIDS use TM/CAM. Seventy percent of the population in Canada have used complementary medicine at least once. In Germany, 90% of the population have used a natural remedy at some point in their life. Between 1995 and 2000, the number of doctors who had undergone special training in natural remedy medicine had almost doubled to 10 800. In the United States, 158 million of the adult population use complementary medicines and according to the United States Commission for Alternative and Complementary medicines, US \$17 billion was spent on traditional remedies in 2000. In the United Kingdom, annual expenditure on alternative medicine is US \$230 million.” (PM-WHOTraditional_medicines_legal_status.pdf, 2001)

Many practitioners, pharmacists and others in the medical sector are hesitant to use or suggest CAM because they are concerned about the safety of CAM (<http://www.ru.ac.za/academic/departments/pharmacy/conference/abstracts/abs6.html>, 2005). According to Janet Welham, executive member of the South Health Products Association, the health risks of CAMs are virtually negligible compared to conventional medicines and ordinary foods. She has analysed published data regarding the health risks of complementary and alternative medicine (www.hpasa.co.za, 2005). She reviewed the relative safety profiles

of a large number of substance groups, medical conditions and health services. Her research revealed that in the United States, the fourth greatest contributor to mortality is preventable medical misadventure and the 12th greatest contributor is food. A statistical comparison of frequent causes of death in the United States shows that for every one death from complementary medicines, there are 240 deaths from food, 2 400 deaths from preventable medical misadventure and 5 180 deaths from properly prescribed and used drugs. She found that similar statistics have been reported from Australia and Britain. Welham concluded that, when measured against the perspective of wider safety issues, it was clear that CAMs did not pose serious health risks (www.hpasa.co.za 2005).

2.3 CAM in South Africa

In South Africa a recent market survey results were released by the Health Products Association of South Africa (Tomlinson, 2005) and this survey showed increased sales of 17,9% and an average 43,3% mark-up from 2001 to 2003. This growth factor indicates that CAM is increasing faster than conventional medicine. These results indicated that in 2003 South Africans spent over R1.9 billion on natural health care products of which more than R61 million was spent on OTC homeopathic products, an increase of 16.4% on figures received from a similar survey conducted in 2001 (Tomlinson, 2005). This growth is driven by people who wish to take responsibility for their health and well-being and recognise that CAMs play an important role in preventative and promotive health. This is in accordance with World Health Organisation (WHO) trends that estimate that 65-80% of the world's population uses CAMs as their primary form of health care (www.hpasa.co.za 2005).

The survey also showed that the homeopathic sector accounted for 4% of total market sales with a 23.9% increase in homeopathic remedies sold from 2001 to 2003. A total of 67% of the OTC homeopathic products sold were homeopathic remedies, the remaining portion comprising anthroposophicals (15%), homeopathic creams (11%) and tissue salts (7%). Complementary

practitioners accounted for only 1% of total distribution of natural health care products. This indicates that the predominant means of distribution of natural health care products in South Africa is via the retail market, specifically direct sales (26%) supermarkets and hypermarkets (25%), pharmaceutical wholesalers (12%), pharmacies (21%), health shops (4%), export sales (2%) and other (9%). This is contrary to the more evenly distributed United Kingdom ratio of homeopathic OTC sales (£9 million) to practitioner prescriptions (£9-11 million) (Kayne, et al. 1999); however it seems to parallel the United States trend (Eisenberg, et al. 1998) of increased consumer use and expenditure of CAM but this was not due to increased visits to CAM practitioners.

These results indicate that a large portion of homeopathic sales are occurring in health sectors which do not necessarily have a qualified homeopath present who can advise and guide the purchasing of homeopathic medicines. This is of potential concern for the profession of homeopathy as the level of understanding regarding the principles and practice of homeopathy by the public including that of people selling homeopathic medicines has not been established and hence due to a possible lack of understanding, the potential for adverse reactions and misinformation is great and could have damaging results on the perception and use homeopathy.

In a South African survey amongst a group of pharmacy students, it was noted that despite the fact that CAM is a primary source of health care for over 70% of the world's population, it is not a compulsory part of the curriculum of pharmacy students in South Africa. Students were of the opinion that CAM should be a compulsory part of the curriculum of undergraduate pharmacy students' training in South Africa due to the increased interest in CAM, the fact that pharmacies sell an increasing number of homeopathic and herbal remedies, and also because of the increased awareness by consumers about these therapies due to their widespread advertising in the lay media. As a result of this, CAM principles are now included as part of the Pharmacy Practice curriculum of final year students at the University of Port Elizabeth. The scope is to develop continuing education short courses in CAM, preferably in a distance-learning style, which can contribute to the proposed

continuing professional development (CPD) points for pharmacists (Truter and Naidoo, 2002).

In a survey conducted on pharmacists in South Africa, it was found that generally pharmacists have a positive and accepting attitude towards CAM but lacked knowledge of CAM. Most pharmacists thought that CAM should be included into the pharmaceutical curriculum and agreed that CAM should play an active role in the health care system of South Africa (Daphne, 1997).

In a survey conducted on Grade 12 learners in Durban and their perception of homeopathy, it was found that there was a large degree of ignorance amongst respondents regarding homeopathy; however 80% of those who had no experience of homeopathy wished to learn more about it. The learners, who had previous experience with homeopathy, expressed their satisfaction with the therapy. More than half of the respondents believe that the public does not accept homeopathy as a form of medical therapy and 76.6% of these respondents were of the opinion that this was due to a lack of understanding of homeopathy. This again highlights the importance of the conveyance of accurate and reliable information to the public via CAM providers which include those who speak to the public directly regarding CAM OTC's (Small, 2004).

Most medical aid schemes in South Africa do reimburse the public for the use of certain complementary therapies. However in all cases they must be registered with the Board of Health Funders and the Allied Health Professions Council of South Africa (Old Mutual, 2006).

Presently and under current legislation there is no requirement for the registration of complementary and traditional medicine (www.doh.gov.za, 2005), hence the accessibility of homeopathic medicines is easy with the public being able to self prescribe and obtain homeopathic medicines readily and freely over-the-counter.

2.4 How does homeopathy fit into CAM?

In the context of the definition of CAM adopted by the Cochrane Collaboration (see 1.1) and the evidence presented thus far regarding the popularity of Homeopathy, its use and indications, it is clear that homeopathy is classified as CAM due to the fact that it is used as an alternative (instead of) allopathic medicine or is used as a complementary to (with) allopathic medicine.

The founder of Homeopathy, Dr. Samuel Hahnemann was a German physician who after being dissatisfied with the results he had achieved through allopathic medicine (based on the philosophy of opposites) was convinced that there existed an alternative form of treatment. He founded Homeopathy and after many years of investigation, he wrote the Organon in which he explained Homeopathy, its principles and guidelines to its practice. The word homeopathy can be split into 'homoeos' meaning similar and 'pathos' meaning disease, which form one of the fundamental cornerstones of homeopathic philosophy which is that 'like cures like.' (Hammond, 1995).

Since the foundation of homeopathy until the present day, homeopathy has received ridicule from the medical, scientific and the religious sectors. It has been regarded by many as an unfounded and unscientific method of treatment.

(<http://www.thelancet.com/journals/lancet/article/PIIS0140673605671498/fulltext>) There are many reasons for this and one of the more frequent arguments is that no measurable amount of the original substance exists in the homeopathic remedies above the 12cH potency due to the methods of dilution used in the manufacture of homeopathic medicines. Hence according to accepted scientific laws, specifically Avogadro's law, a gram-mole of a compound contains 6.02×10^{23} molecules. Therefore, homeopathic potencies of 12c centesimal or 24X decimal and higher do not contain any molecule of the original drug and hence are considered to be placebos (<http://sharma.newtheory.org/HomeopathyUpDate.html>, 2005).

The Lancet, a well known medical publication printed an article which stated:

“A team of scientists have described them as weak and producing nothing more than a placebo effect. The research says the benefits of homeopathy are all in the imagination of patients.” (26 August 2005).

This article sparked off further debate and the Homeopathic Association of South Africa (HSA) responded with a letter which quoted the Clinical Director of the Royal Homeopathic Hospital, London, Dr. P. Fisher, saying:

“The much-trumpeted conclusion about homeopathy being only placebo is based on not 110 clinical trials, but just eight. My suspicion is that this report is being selective to try to discredit homeopathy.”

The letter goes on to quote distinguished material scientist, Dr. Rustum Roy who speaks of Avogadro’s limit as being absurd and out dated science. Dr Roy goes on to say,

“It is a fact that the structure of water and therefore the informational content of water can be altered in infinite ways.”

(www.hsa.org.za. 2005).

Due to the fact that homeopathy does not comply with accepted norms regarding the classification of medicines and that the science behind homeopathy is more of a quantum physics nature; it stands to reason that its mechanism of action is multidimensional and cannot be defined to one plane of existence, viz. the physical plane. The author of the book, ‘Molecular Biophysics of the “Micro” Dose’, Professor Doctor Rati Ram Sharma states,

“The mechanical dynamization processes of trituration or succussion at each step of dilution, which are unique only to Homeopathy and not yet explored by "sciences", induce the diluent molecules (lactose, water, ethanol) to acquire and later mimic the chemical specificity of the original drug molecule so as to themselves act as the therapeutic agent. So, the homoeodose is not "micro placebo" but contains plenty of medicinally active diluent molecules, removing for good the perennial conceptual impasse created by the Avogadro's law. Modern physics recognizes the induction of magnetism and electric charge but not of the chemical specificity of one molecule into another which underlies the process of homoeopotenziation. The new science of

Inductive Chemistry envisages studying the mechanism of preparation and properties of the 'induced molecules'. The other two new sciences of Xenobiology and Inductoxenopathy are elucidated elsewhere to explain the basis and operation of the Law of Similars etc.”

He goes on to say that,

“Homeopathy has always been and still is beyond the contemporary sciences but provides the bases, and needs recognition, of three new sciences: Inductive Chemistry, Xenobiology & Inductoxenopathy. It has vast therapeutic potentials.”

(<http://sharma.newtheory.org/HomoeopathyUpDate.html> 2001).

A homeopathic physician takes many factors into consideration when prescribing a remedy for the patient. These factors are usually obtained from the patient through case-taking. The totality of symptoms (mental, emotional and physical symptoms) is all important in the decision of treatment, remedy selection, potency choice and follow-up treatment

(http://www.vithoulkas.com/homeopathy_EN/faq.html#6 2005).

Homeopathy is classed as a CAM therapy because of its holistic nature. According to World Health Organization,

"Health is a state of complete physical, mental and social well-being and not merely an absence of disease or infirmity".

(cited by Sharma 2001).

Diagnosis of disease under the conventional medicine paradigm involves changes detected outside of the normal ranges set for biochemicals, biopotentials and tissue structure. Currently there are no parameters for ascertaining pre- clinical or sub-clinical changes albeit that the patient may suffer some subjective/ mental and/or physical symptoms. Homeopathy can be used to treat these symptoms and in so doing can serve as an effective preventative medicine in that it may curtail further progression of sub-clinical disease into further advanced stages. Homeopathy allows harmonious normalcy and health on the social, physical, mental and supramental levels. (Sharma, 2001).

Ernst, et al (2003), make reference to the following,

“Many proponents of CAM are keen to point out the holistic nature of CAM and claim that some of its therapeutic benefits may occur on levels not readily accessible by quantitative measurements. The whole ethos of evidence based medicine, however, crucially depends on reproducible, quantifiable outcomes. What is not measurable tends to be denied existence. This situation may create an ethically questionable bias within mainstream medicine against areas of medicine in which outcomes cannot be adequately quantified or defined.”

2.5 What are the effects of the changes in CAM usage globally?

A recent pharmaceutical study in the United Kingdom found that 57% of people buying OTC homeopathic medicines, purchased polychrests and 18% purchased complexes. Advice on what specific medicine to select was obtained from a variety of sources, the most important being buyers' own knowledge, their doctor and the community pharmacist. It was also found that some patients also like the comfort of a confirmatory word from the pharmacist or another member of staff when buying untried medicines (Kayne and Beattie, 1999). Alternative medicine use and expenditures increased substantially between 1990 and 1997, attributable primarily to an increase in the proportion of the population seeking alternative therapies, rather than increased visits per patient (Eisenberg, et al. 1998). There was no significant change in disclosure of alternative therapy use to practitioners in the United States, with 39.8% of alternative therapies disclosed to physicians in 1990 versus 38.5% in 1997 (Eisenberg, et al. 1998).

Due to the fact that the demand for CAM has increased in general globally, there has been an increasing need from governments, practitioners, pharmacists and the public for CAM regulations and increased CAM education. One of the main reasons as to why people are turning to CAM is because they feel there are less side effects than orthodox medicines and

also because they want to be involved in sorting out their problems and CAM is seen to be more integrative between practitioner and patient (Furnham and Lovett, 2001). The medical sector is concerned that the public are not fully aware of the potential dangers of using allopathic and CAM at the same time and the fact that many patients do not divulge this information in their medical consultations is becoming a concern

(<http://www.publications.parliament.uk/pa/ld199900/ldselect/>, 2005).

2.6 How do the changes in CAM affect South Africa?

Global changes in CAM do have a direct effect on South Africa due to the fact that South Africa has no regulations in place which currently deal with CAM. The changes overseas have highlighted this fact and have sparked much controversy in the medicines regulations of this country. As reported in the Durban based newspaper, The Mercury (2005), South Africa has a CAM legislative proposal inspired by pharmaceutical interests, proposing to subject them to the extensive testing routines normally applied only to allopathic - pharmaceutically produced – medicines. The rationale is to "ensure the safety of natural remedies including herbs and nutritional supplements". However, the article went on to say: "In what may be a harbinger of international reversal of position, South African Health Minister Manto Tshabalala-Msimang said at a recent international conference on natural products and molecular therapy at the University of Cape Town Medical School, that the proposal "is likely to be changed". The Minister urged delegates to "expose the false dichotomy that has arisen between natural and allopathic medicine", adding that "this is a division fostered by the need to make money from patented drugs through discrediting the use of natural products" (Smetherham, 2005).

It seems from these statements that the South African Minister of Health is willing to approach CAM in a different manner from her overseas counterparts; however with regulations still in the draft stages, it is difficult to say what the final outcome will be.

2.6.1 What are the implications and concerns surrounding these proposed changes in CAM in South Africa?

The Minister, Manto Tshabalala-Msimang, commented that draft legislation could cripple complementary medicine if it were to be implemented. The new proposed legislation would allow for an alternative method of regulation being used for complementary medicines and in so doing indirectly protect complementary practitioners from the expensive and difficult process of registration of complementary medicines. The minister said that she would like to avoid the pitfall of putting such products (CAM) in the same regulatory environment as pharmaceutical drugs, whose testing and control is very different (Smetherham, 2005).

Many South Africans make use of CAM therapies and traditional medicine as a viable and inexpensive means of maintaining health and treating disease. At least 80% of South Africans used African, Chinese, Ayurvedic or South American traditional medicines. The proportion would be greater if homeopathic and other complementary medicines were included. South Africans spent R3 billion a year on complementary medicines (Welham, 2005).

The HPA (Health Products Association) of South Africa also suggests that a new paradigm for CAM regulation is required as it is not appropriate to use the medical model for a group of therapies which are clearly different in many respects from allopathy (Tomlinson, 2005).

If the medical model is used to regulate CAM, disaster will certainly prevail as it will be virtually economically impossible to run clinical trials on all CAM medications available as this is extremely costly. CAM's would have to undergo trials designed for allopathic medicines and a pharmacist would have to oversee their manufacture. CAM's are not patented and hence would have to undergo large scale, expensive trials. Due to the expense that this would involve, most CAM medicines would be illegal and CAM practitioners would not be able to prescribe their medicines accordingly which would result in a

complete breakdown of CAM. No doubt this would be a step backwards in the movement towards integrative medicine and it would also go against democratic health and freedom of choice.

Due to the relatively high level of training offered for homeopathy in South Africa in comparison to other less known CAM therapies and the fact that homeopaths who qualify from recognized learning institutions are required to register with the Allied Health Professions Council of South Africa, it can be assumed that any changes in regulations affecting CAM will have a direct impact on the profession of homeopathy and the sale of homeopathic OTC's which are currently, a large portion of CAM sales (Tomlinson, 2005) and hence will have a direct effect on the pharmaceutical market in South Africa leading ultimately to a negative impact on the economy.

According to New United Pharmaceutical Distributors in South Africa CAM is one of the fastest growing elements in South Africa (http://www.upd.co.za/upd/alternate_medicine.htm). This has led to an increase in demand for complementary medicines (including homeopathic) as a viable and profitable alternative to prescription medication. This increase in demand for complementary medicine raises the concern that the unregulated dispensing of homeopathic medicines without adequate training and knowledge, can lead to possible inaccuracies and long term problems.

Many doctors are starting to become more familiar with CAM and homeopathy and a few are recommending homeopathic OTC medicine concurrently with allopathic treatment. Increasing numbers of doctors, nurses, and other health care professionals are incorporating the best of both approaches into what is called "integrative medicine" (Weil, 2000). Pharmacies in the United States are increasingly making alternative remedies available and according to a 1994 study, homeopathic preparations were being stocked by 69% of chain drugstores and by 3000 independent pharmacies, accounting for annual sales at the time of about US \$100 million.

(www.zondervan.com/features/books/0310235847/media/pppppdfs/0310235847.pdf). This scenario allows patients to be able to purchase their prescribed

OTC homeopathic medicine at the pharmacy when receiving their prescribed allopathic medication from the pharmacist, thus reducing the need for a homeopathic practitioner and emphasising the importance of understanding the level of knowledge amongst the public, doctors, pharmacists and front shop assistants. Random use of homeopathic medicines without appropriate knowledge and training can complicate the patient's symptoms and jeopardise the patient's health. Dr. G. Vithoulkas strongly disagrees with the mixing of homeopathic remedies as seen by his following comment regarding this subject:

“This is wrong and can only be allowed when the patient's life is in danger and the physician is not sure about the correct remedy”
(<http://www.vithoulkas.com/homeopa>)

It is of benefit for the homeopathic profession to be aware of the level of knowledge and accuracy of information being conveyed to the public from the pharmacy front shop assistants who deal with OTC homeopathic medications. Regulations of CAM practitioners are important in maintaining professional standards; however they are relatively pointless if the dispensing of CAM is not regulated appropriately.

In a survey conducted by Kayne et al (1999), most respondents (60%) reported that they took homeopathic medicine as the sole medication for their problem; others (27%) used more than one homeopathic medicine at a time, or combined homeopathic and allopathic medicines (13%).

A common misconception of the public is that homeopathic remedies will not exert any negative or unwanted effects on the body. (<http://www.publications.parliament.uk/pa/ld199900/ldselect/ldsctech/123/12303htm#n9#n9>). This generally stems from the thinking that anything natural is safe. However many homeopaths, including Hahnemann have clearly stated that if the incorrect remedy, potency or dosage is given that an aggravation or exacerbation of symptoms can occur. (Hahnemann, 1842). If remedies are being advised and sold by people who are without this knowledge, it could pose a problem for the profession of Homeopathy due to the fact that if an

aggravation occurred which the client did not anticipate, it could lead to a lack of trust in Homeopathy or unwillingness to want to continue treatment.

2.7 To what extent are the front shop assistants in pharmacies affected by the changes in CAM?

Pharmacists are more frequently involved in advising about prescription medication at the dispensary and a barrier for customers wanting NPM (non prescription medication) or OTC's is the prescription counter, a fixture considered a hindrance to the counselling process (Stevenson and Taylor, n.d.). This makes the contact of the pharmacy front shop assistant crucial in that they are generally easily accessible and available for advise on NPM or OTC's; hence it would make sense that the pharmacy front shop assistants should be knowledgeable on CAM-drug interactions as well as have a good knowledge of CAM therapies so as to be able to correctly understand what the consumer is utilising and also so as to know what types of questions to ask regarding regimes, exercises, dietary influences and other factors that may need to be considered.

2.8 What is the knowledge of homeopathy of front shop assistants in pharmacies?

Pharmacy front shop assistants are not required to undergo any formal training on pharmaceuticals or OTC medication. They are mainly required to provide guidance on NPM based on in-house training by other staff or from companies supplying OTC's. They are also required to perform basic administration (stock taking, labeling, and packing) and to register sales (<http://www.bls.gov/oco/ocos252.htm> 2005). Considering that no formal training in any form of CAM is given, one can assume that knowledge of homeopathy and homeopathic medication amongst pharmacy front shop assistants is superficial, but that has not been established. This study has ascertained this knowledge, and can form a basis for formulating formal education of these assistants. This will be to the benefit of the assistants, the clients, and to the business of the pharmacy as a whole.

2.9 How can these needs and requirements be addressed?

This poses a valid reason as to why it is important to ascertain, by means of this research, the reasons for recommendation of homeopathic medicines by a sector which clearly does not recognize homeopathic principles on the premise of Avogadro's law.

A new paradigm of scientifically acceptable clinical data needs to be established and utilized in order to standardize and regulate standards of practice and acceptable quality control regulations in complementary medicine manufacture and cGMP (current Good Manufacturing Procedures).

Further research needs to be conducted in this field in order to come up with appropriate levels of training required for the average pharmacy front shop assistant so as to best serve the customer with regards to accurate and valid information and advice and in so doing to take health care to a more complete level, where both allopathic and complementary medicines are recognized, regulated and appropriately monitored so as to best serve the health needs of the consumer. Consistent training by suitably trained CAM professionals would be of great importance in the pharmaceutical industry and a CPD (continuing professional development) type of structure with different levels of training may be of benefit to not just pharmacists but also pharmacist assistants and pharmacy front shop assistants. This would encourage pharmacies to check that all staff meet certain training criteria and remain up to date with recent research and developments.

Chapter Three

Materials and methods

3.1 Design

This was a prospective, epidemiological study which was quantitative in nature and assessed the understanding of pharmacy front shop assistants in relation to Homeopathy in the Kwa Zulu Natal area.

3.2 Sample

3.2.1 Recruitment

The researcher obtained a list of pharmacies in the Kwa Zulu Natal area. The owner or qualified pharmacist in the pharmacy selected the participants and the participants could also select themselves. A maximum of two participants were allowed per pharmacy and they were fluent in written and spoken English, interacted with the public, giving advice and selling health products.

3.2.2 Sample method

Sample stratified by region.

A list of all the pharmacies in the Kwa Zulu Natal area was obtained. The list was narrowed down to only include pharmacies with the greater Durban (031) dialling code. The locations of the pharmacies were allocated to 6 sections and the sample group was proportionately calculated as shown in Table 3.1. Pharmacies were randomly selected from each section.

Table 3.1 Proportionate calculation of pharmacies by regions

Sections	North	North Cent.	South Cent.	South	Inner West	Outer West	TOTAL
Number of pharmacies	18	82	50	18	46	13	227
% Ratio of area to area	8%	36%	22%	8%	20%	6%	100%
Minimal regional requirement of 15%	3	12	8	3	7	2	35

A minimal regional requirement of 12% was necessary for a statistically significant result (Langworthy and Smink, 2000); however a minimal regional requirement of 15% was used.

3.2.3 Sample size

Due to the fact that the population (total number of pharmacies) was relatively large and covered a large area of Kwa Zulu Natal, the researcher only provided questionnaires to the number of pharmacies needed per section to meet the minimal regional requirement of 15% (35 pharmacies). The pharmacies were randomly selected from each section. A maximum of two participants per pharmacy were required and this resulted in a total number of 49 questionnaires as some pharmacies only had one participant.

3.3 Sample Characteristics

3.3.1. Inclusion criteria

3.3.1.1 Pharmacy inclusion criteria

Proof that the pharmacy was a legitimate enterprise (e.g. vat registration number).

The pharmacy could be part of a chain or franchise.

The pharmacy had to be within the parameters of the Kwa Zulu Natal region.

The pharmacy had to be an independent entity and not associated with any other business entity (e.g. it could not be situated within a retail outlet e.g. Clicks).

The pharmacy had to stock homeopathic medicines for sale over-the-counter.

3.3.1.2 Sample inclusion criteria

Population group had to be fluent in written and spoken English.

Population group needed to deal directly with the customers, selling and giving advice on health products.

3.3.1.3 Questionnaire inclusion criteria

Informed consent needed to be completed by the participants prior to inclusion into the study. In this respect the participants needed to have read the letter of information, agreed to answer the questionnaire and sign the informed consent before completing the questionnaire.

3.3.2 Exclusion criteria

3.3.2.1 Pharmacy exclusion criteria

The pharmacy did not stock over-the counter homeopathic medication.

The pharmacy was not a registered legitimate and independent business entity.

The pharmacist/owner did not give permission for the researcher to conduct the research.

3.3.2.2 Sample exclusion criteria

Anyone who was a qualified medical person, homeopath, and/or pharmacist and/or involved in an internship as a pharmacist assistant or was a pharmacist assistant.

Any person who participated in the focus group or pre-test questionnaire was excluded from participating in the study.

3.3.2.3 Questionnaire exclusion criteria

Questionnaires would be excluded from this study if the participant had obtained information or help from any other person in order to complete the questionnaire.

3.4 Method

3.4.1 Contact with pharmacy

The researcher contacted the pharmacy owner/manager or qualified pharmacist either by entering the pharmacy directly, or by telephone.

3.4.1.1 Initial contact

The researcher introduced herself as a Masters student who was conducting research in complementary medicine, which required the completion of a questionnaire. The researcher explained what was entailed in the pharmacy's participation. If the appropriate person was not available or if it was inconvenient, an appointment for the same purpose was scheduled.

3.4.1.2 Appointment with manager/ owner/pharmacist

At the appointment the researcher:

- Explained that the research entailed the completion of a questionnaire by the members of staff who served customers in the shop. Permission to conduct research was requested.
- The researcher discussed the inclusion and exclusion criteria and requested that the owner / manager/pharmacist would nominate a maximum of two suitable participants.
- The researcher confirmed that the participants' identity would remain confidential and anonymous and that the researcher would not be present during the completion of the questionnaire. The name of the pharmacy would also remain confidential and anonymous.
- Once the owner/manager/pharmacist had agreed to allow the questionnaire to be completed, the researcher established a

convenient time, which was suitable for the questionnaire to be handed to the nominated staff members.

3.4.2 Contact Control Procedure

The researcher utilized a control sheet to record all contact with prospective participants.

3.4.3 Site Visit

Contact was to be made directly with the nominated participants. The participants were given the letter of information, (APPENDIX I), to read in the presence of the researcher. This ensured that the participants were fully aware of what was entailed for the completion of the questionnaire and it also provided the participants with an opportunity to express concerns or ask questions. The participants were given the letters of information to keep for their personal record and were then asked to read and sign the informed consent forms (APPENDIX C) and return them to the researcher.

The informed consent forms were retained by the researcher as proof of participation. The participant/s was/were reassured that their identity would remain anonymous.

A time was agreed upon for completion and collection of the questionnaire.

3.4.4 Completion of Questionnaires

A maximum of two participants per pharmacy were requested to complete the questionnaire. An instruction for the completion of the questionnaire was that the respondent was to complete the questionnaire on their own, without consultation with any other person or book.

The questionnaires were coded on completion and collection for the purpose of pharmacy identification and to ensure proportionate representation of the sample. Coding allowed for anonymity.

3.5 Research Tool

3.5.1 Background

The research tool utilized was a questionnaire that had been developed by the researcher and a concurrent researcher looking at the same concepts in a different sample group. The concurrent researcher, Janet Anne Tatalias, administered the same questionnaire to health shop assistants. The similarity between the two sample groups lent itself to the use of the same questionnaire. Both groups were generally lay people who work behind the counter selling and giving advice on health products.

According to Hall and Hall (1996) a social survey using questionnaires is widely recognized as a standard method of collecting information. Its purpose is to generate information in a systematic fashion by presenting all participants with questions in a similar manner, and recording their responses in a methodical way. It addresses the issue of reliability of information by reducing and eliminating differences in the way in which questions are asked, and how they are presented.

The purpose of the questionnaire was to assess the level of understanding of homeopathy by pharmacy front shop assistants. Questionnaires that had been utilized in similar research were examined, Davies, et al. (1992), Daphne (1997), Wortmann (1997) and Small (2004). The questionnaire was then formulated using generally accepted guidelines as set out by, Lavan (1985), Hall & Hall (1996), Mouton (1996), Eckhardt & Ermann (1997) and Bernard (2000).

It was assumed that the pharmacy front shop assistants would need a basic understanding of homeopathy and the questions were formulated to assess this basic understanding.

The format of a series of fixed choice, or close ended questions, that were self-administered were selected for the following reasons:

- Time and budgetary constraints

- Self administered questionnaires allowed for a larger sample group to be sampled in a shorter period of time
- The nature of this research lent itself to that format. The aim of the research was to determine whether the sample group concerned had a basic understanding of the core concepts of homeopathy. In-depth interviewing was not necessary
- Self-administration reduced bias due to interviewer manner or characteristics (Hall & Hall, 1996).
- The participant is afforded a greater sense of privacy and anonymity Eckhardt & Ermann (1997) and generally less resistance to completing the questionnaire.
 - Closed ended questions are efficient and unambiguous for the purpose of analysis (Bernard, 2000).

3.5.2 Discussion of Questionnaire

Appendix H: Letter of Information Manager /Owner

Appendix I: Letter of Information Participant

Appendix L: Finalized Questionnaire

The questionnaire consisted of eight sections: A to H. A majority of the questions were fixed choice.

3.5.2.1 Demographic Questions related to participant

Section A Questions A1 to A5, and Section B, Questions B1 to B7, pertained to the sample under study and served to establish: age race, home language, educational levels, employment position, and length of time worked in pharmacies.

3.5.2.2 Questions related to the pharmacy

Section C Questions 1, 2, 3, 4, 5, 6, 7 and 8. These Questions were aimed at finding out:

- If homeopathic medicines were stocked and sold over the counter.
- If homeopathic simplexes were stocked.

- What potencies were stocked?
- If homeopathic complexes were stocked.
- What ranges of homeopathic medicines were stocked?
- Whether homeopathic medicines were dispensed as per script?
- Who did the dispensing?
- Qualification of person doing dispensing.
- If there was qualified or student homeopath working in the pharmacy?

3.5.2.3 Questions related to the pharmacy front shop assistant

Section E Questions 1 and 2 related to the participant concerned and were aimed at gathering information about their interaction with homeopathy:

- Had the assistant had a homeopathic consultation?
- Had the assistant ever taken homeopathic medication?

Section E Question 3 and Section F, Question 4 related to the assistant and were aimed at gathering information about their perceptions of homeopathy:

- Did the assistant think that homeopathic medicines are effective?
- Why did the assistant think they are effective?

Section E Question 4 asked the assistant if they thought they required more comprehensive training in homeopathy.

Section D Questions 1 and 2 related to the application of homeopathy by the pharmacy front shop assistant.

- How the assistant went about selecting homeopathic medicines for customers
- For which common ailments the assistant recommended homeopathic medicines

Section D question 3 aimed to find out if the assistant ever referred customers to any practitioners and if so to whom.

3.5.2.4 Questions related to the understanding of homeopathy by the participant.

Section F examined knowledge of storage and administration of homeopathic medicines by the participant.

Section G. This was a fixed choice section that examined levels of understanding of the following homeopathic concepts:

- Law of similars
- Totality of symptoms
- Potentization
- Homeopathic aggravation
- Homeopathic proving
- Succussion
- Homeopathic simplexes
- Homeopathic complexes
- Centesimal and decimal dilutions

Question G1, requested the participant to assess their own level of knowledge of homeopathy, and the remainder of the section G2 - G12 allowed for five choices and requested that the participant indicated the statement that related to their understanding of the concept concerned.

Section H was a true/false section that had three functions:

- As a check for section G.

Question H 12 was a check for question G 3.

Question H 13 was a check against G4.

Question H 14 was a check against G2.

Question H 15 was a check against G 9.

Question H 16 was a check against G 12.

- As means of checking popular misconceptions.

Questions H1 and H2 tested the misconception that anything natural is classified as homeopathic.

Questions H7, H8 and H9 looked at the misconception that homeopathy is unscientific and based on placebo effect.

- As a means for checking basic concepts.

Questions H3, H4, H5 and H6 examined knowledge of homeopathic medicinal administration; how homeopathic medicines should, and could be taken and what could interfere with this process.

H10 examined the knowledge of homeopathic medicinal origins.

H11 tested basic knowledge that should have been present when advising the public. People with lactose intolerance should use lactose free forms of preparation.

3.5.2.5 Questions related to factors that could influence the participants understanding of homeopathy

These factors included:

- Educational levels, Questions A5, B3, B4, B5, B6 and B7.
- Length of time worked in pharmacies, Question B2.
- Employment position, Question B1.
- Whether homeopathic medicines were stocked or not, Question C1.
- Whether homeopathic medicines were dispensed or not, Question C7.
- Access to a homeopath, Question C6.
- Past experience with homeopathy;
- Had the participant ever been treated by a homeopath, Question E1.
- Had the participant ever used homeopathic medicines, Question E2.
- Did the participant think that homeopathy was effective, Question E3 and F4.

3.6 Data and its analysis

The completed Questionnaires were collected by the researcher and the raw data was captured and sent to the statistician for analysis. The SPSS version 11.5 (SPSS Inc., Chicago, Ill, United States) was used to analyse the data. Frequency tables and bar or pie charts were used to describe the demographics and responses to questions in the sample. A knowledge score was computed by assigning a score of 1 to each correct answer to the Questions on knowledge (Section F questions 1-3, section G and section H) and summing up the scores for each participant. Question G12 was given a weighting of 2 points. Knowledge score was expressed as a percentage out of a possible total of 45 points. This was categorized at the median score of 40%, lower than this score indicated a relatively poorer level of knowledge and higher than or equal to this score indicated a good level of knowledge. Factors associated with a good level of knowledge were assessed by chi square tests or Fishers exact tests. In the case of two by two tables Multivariate analysis was not performed due to small sample size. A p-value of <0.05 was considered as statistically significant.

Chapter Four

Results and discussion of results

4.1 Results

4.1.1 Demographics – Section A

4.1.1.1 Gender

Forty –nine participants were selected for this study. They consisted mainly of females (n=47, 95.9%). There were only 2 males (4.1%). The gender distribution is shown in Figure 4.1.

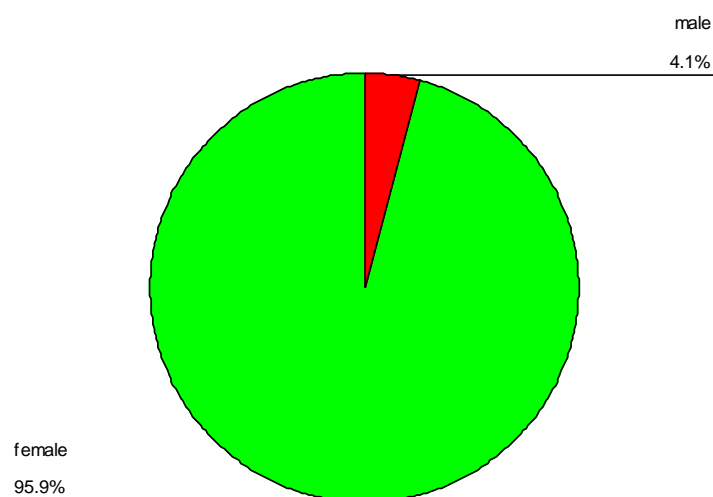


Figure 4.1: Pie chart of gender distribution of sample (n=49)

This trend also appears to be apparent for customers in pharmacies. In a survey conducted on customers in British pharmacies, 21.4% were males and 77.9% were females (Kayne, et al. 1999).

The opposite occurred in the survey conducted by Daphne (1997) on pharmacists; 35% of the respondents were female and 65% were males.

4.1.1.2 Age

Age groups of participants are shown in Figure 4.2. The majority were 36-45 years old.

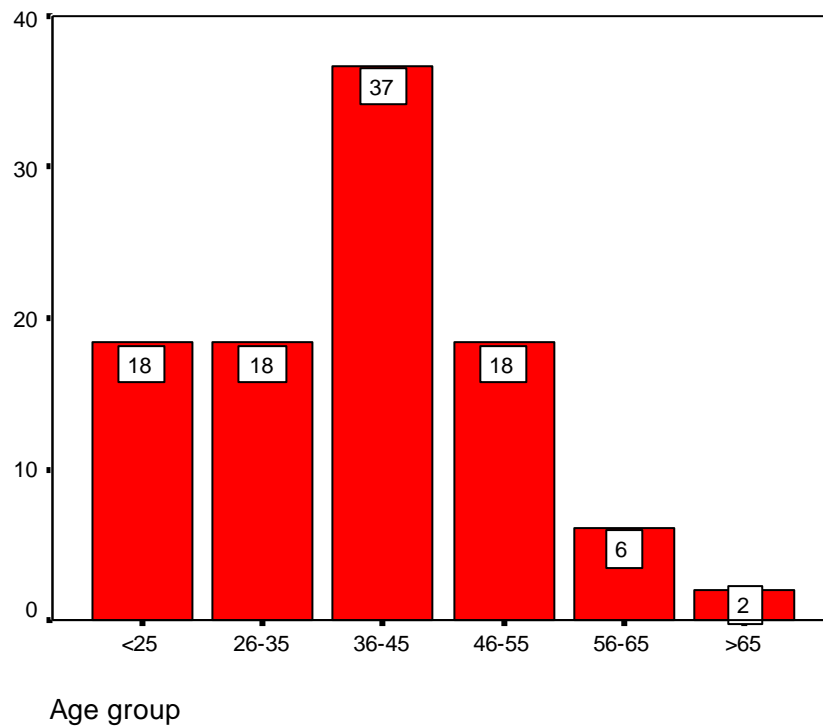


Figure 4.2: Percentage of participants per age group (n=49)

The sample therefore is generally female between the ages of 36-45.

4.1.1.3 Language

First language of sample participants is shown in Table 4.1. Eighty six percent (86%) of participants listed English as their first language, 6% Afrikaans, and 4% Zulu. In addition 4% were bilingual.

Table 4.1: Frequency and percentage of participants per language (n=49)

	Frequency	Percent
English	42	85.7
Afrikaans	3	6.1
Zulu	2	4.1
English and Afrikaans	2	4.1
Total	49	100.0

The statistics for languages in South Africa are contrary to these statistics with Zulu being spoken by 23.8% of the population, Afrikaans 13.3% and English by 8.2% of the population (Reference.com-Encyclopedia-Demographics of South Africa.htm 2006). The reason why English was the most spoken language in this questionnaire is because Whites and Indians speak English which add up to 85.7% of the race distribution as shown in Table 4.2.

4.1.1.4 Racial distribution

Racial group of participants is shown in Table 4.2. The majority were White (51%), followed by 34% Indian, 10% were Coloured and the minority (4%) were Black.

Table 4.2: Racial distribution of participants (n=49)

	Frequency	Percent
Black	2	4.1
Coloured	5	10.2
Indian	17	34.7
White	25	51.0
Total	49	100.0

Thus the sample is generally White, female, middle aged and English speaking.

Durban has a high percentage of Indian people in comparison to the other cities in South Africa due to the fact that in the late 1800's, labourers were sent from India to work on the sugarcane fields resulting in the highest concentration of Indians outside of India (Reference.com-Encyclopedia-Demographics of South Africa.htm. 2006).

It would make sense that there are not a large percentage of black pharmacy front shop assistants due to the large majority of black South Africans who use African Traditional Medicine as their primary health care as opposed to allopathic medicine. African Traditional Medicine is a part of the Black Culture and it is also more affordable and easily accessible to those in rural outlying areas. In terms of this, it would probably not be a natural area of interest for a

Black person to pursue due to the lack of interaction with pharmacies via allopathic medicine (PM-WHOTraditional_medicines_legal_status.pdf 2005).

4.1.1.5 Education

Figure 4.3 shows the percentage of participants by highest educational qualification. The highest education level of the majority was a matric (n=33, 67%). Only 9 participants had tertiary education.

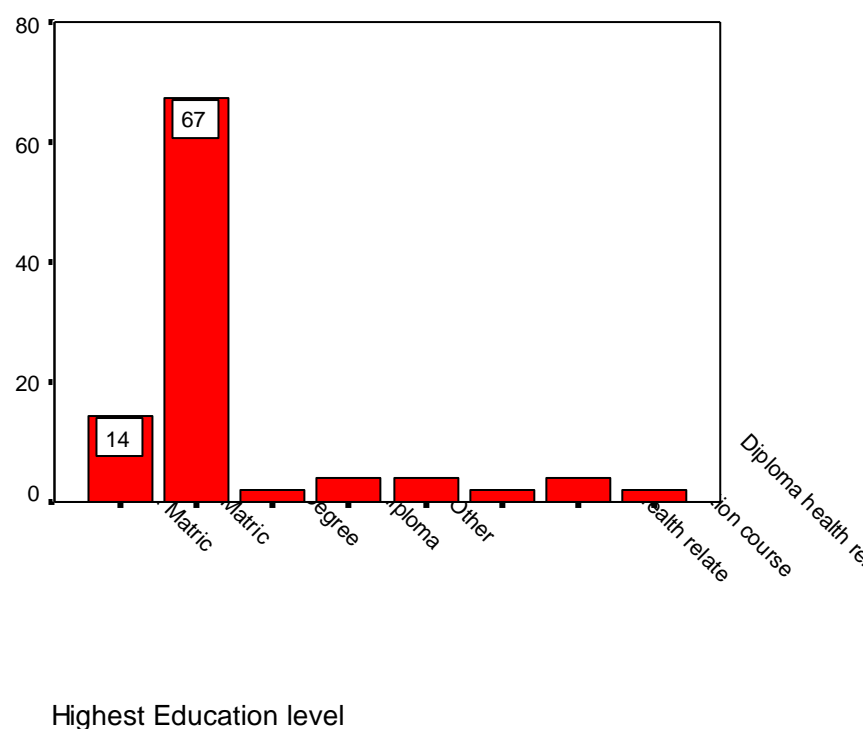


Figure 4.3: Highest education level of participants

The age of the average respondent is 36-45 years. Considering that the average woman 18–27 years ago was not in terms of social structure considered to be the provider in the family or a contributor to the income of the household, it was unnecessary for her to obtain anything higher than a matric level of education.

4.1.2 Work experience and training – Section B

4.1.2.1 Position held in pharmacy

None of the participants were the owners of the pharmacies. Three were managers (6%) and 40 were full time employees (81.6%) while 12.2% (n=6) were part-time employees. This is shown in Table 4.3.

Table 4.3: Position held in pharmacy

	Frequency	Percent
Manager	3	6.1
Full time	40	81.6
Part time	6	12.2
Total	49	100.0

Probability in terms of majority would indicate that the average age of the full time pharmacy front shop assistant is 36-45 years old. A person who has a higher level of education than a matric level would probably not be inclined to work in a pharmacy on a full time basis. This type of person would probably only work on a part time basis if they were studying or trying to add to their health related knowledge if this is their area of interest in terms of their career orientation.

4.1.2.2 Work experience

The majority had worked for more than 10 years (n=16, 32.7%). Work experience of the sample is shown in Figure 4.4.



Figure 4.4: Work experience of participants (n=49)

In terms of the majority having a matric level of education and being between the ages of 36-45 years old, it is probable that this group has worked for longer than 10 years.

4.1.2.3 Homeopathy training

The data showed that 65.3% of the sample had received homeopathy training whilst employed at the pharmacy (n=32), while n=17, 32.7% had not. The percentages of participants who responded “yes” to certain topics of training are shown in Figure 4.5. The most common topic was specific information on homeopathic medicines (50%).

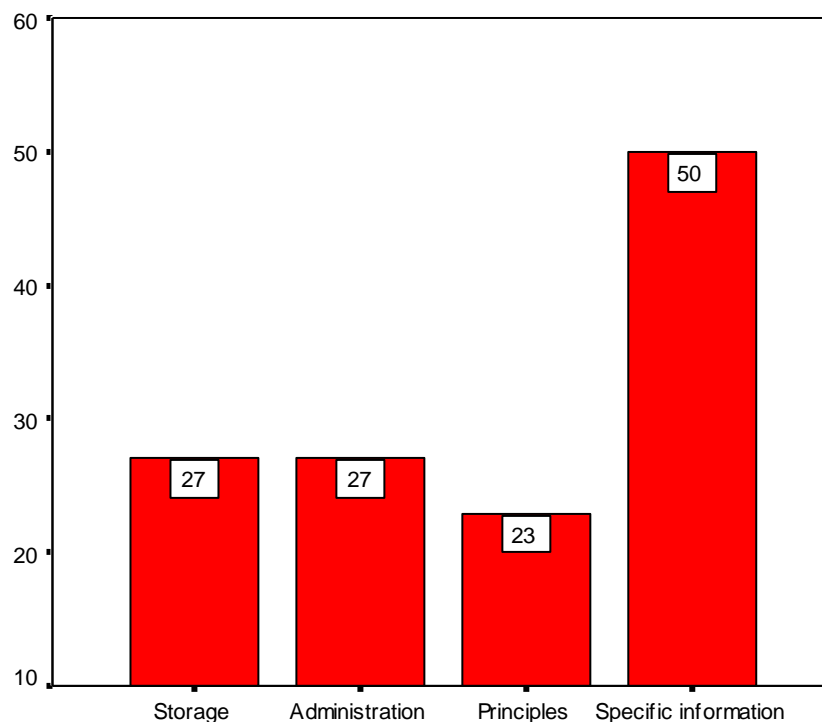


Figure 4.5: Homeopathy training topics

A large percentage of the homeopathic ranges sold as OTC in pharmacies are recommended to be used in a “clinical” homeopathic method; meaning that a remedy is recommended for a specific ailment or group of ailments as opposed to the “classical” method of homeopathy which makes use of the principles of homeopathy. The principles utilized in the “classical” method of prescribing include choosing a remedy (usually a simplex) based on the unique symptomatology of the patient as well as homeopathic constitutional considerations and modalities pertaining to the complaint. This method of prescribing requires a more in depth knowledge and understanding of

homeopathy. The principles are not easy to convey to a lay person who has an allopathic paradigm of understanding and it can be due to this reasoning that the principles are the least discussed topic in training. Companies which manufacture homeopathic OTC's in South Africa tend to manufacture more homeopathic remedies which are complexes which cover a broader range of ailments. The labelling of the products generally gives a brief description of the ailments that the remedy is used for and in so doing manufacturers can ensure easier purchase of products as the end user or dispenser does not require an in depth understanding of the principles of homeopathy but can merely read the label and self prescribe.

4.1.2.4 Type of training: Homeopathy

Type of training is shown in Figure 4.6. Fifty one percent (51%) had received training in-house by product representatives. Twenty two percent (22%) received their training through product seminars.

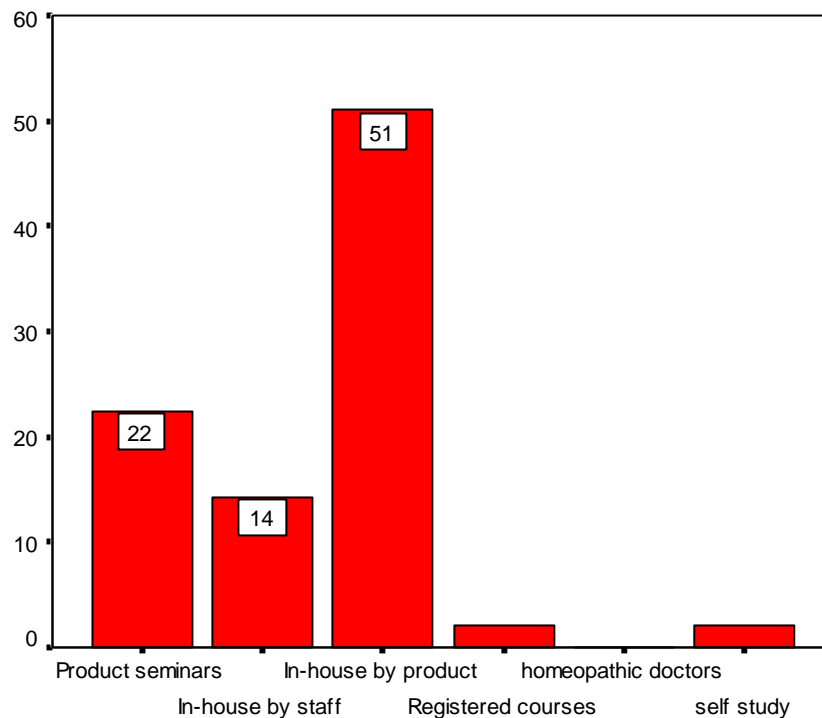


Figure 4.6: Type of homeopathy training

Product representatives will generally train staff on the indications of the complex remedies as specified on the label. Some companies do provide booklets or pamphlets giving a broader list of ailments for which the complexes are indicated.

A small percentage have received training through a registered course and self study and the probability is that these are part-time employees since the majority of training was given in-house by product representatives to the majority of respondents who were full time.

4.1.2.5 General training

The majority had been given training on subjects other than homeopathy while working in a pharmacy (n=41, 83.7%). Figure 4.7 shows that once again in-house training by product representatives was the most common form of training, followed by product seminars.

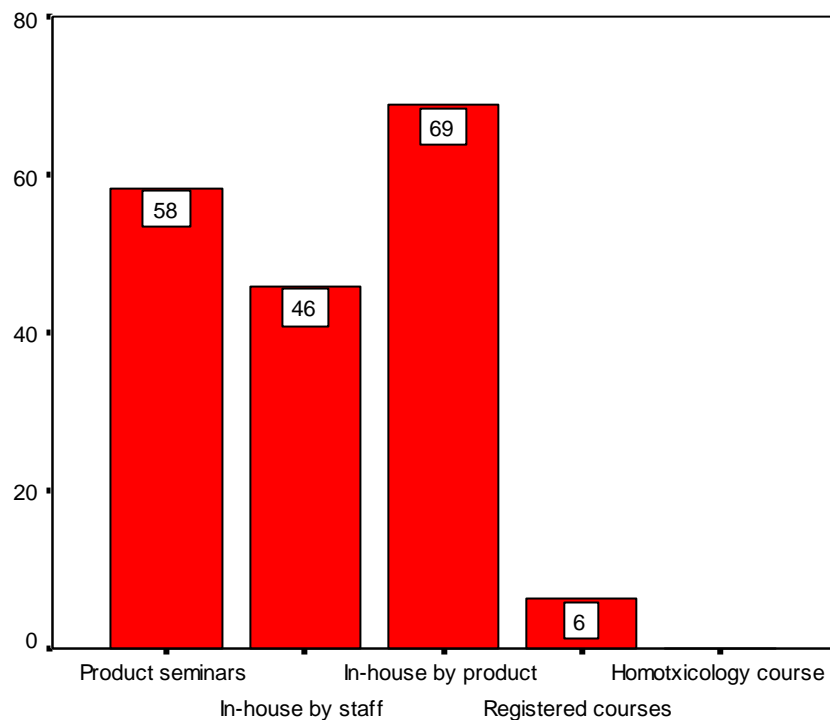


Figure 4.7: Type of general training received by study participants

General training i.e. training on all products available in the pharmacy followed a similar trend to figure 4.6 which shows in-house product training by company representatives as being the most frequently used method of training. In-house training by other staff members seems to be more frequently utilized in general training as opposed to homeopathic training. This may be due to various factors including; general poor understanding of homeopathic OTC products or a lack of interest in homeopathic OTC products. This issue would require further investigation.

4.1.3 Procedures and stock –Section C

4.1.3.1 Over- the- counter homeopathic medicines

Only one participant responded that homeopathic medicines were not stocked for sale over the counter in the pharmacy where he/she was working. This statement was inaccurate as all pharmacists or owners who allowed the pharmacy staff to participate in the study agreed that homeopathic remedies were stocked in the pharmacy. The participant may not have realized that certain products are classified as homeopathic. The participant also stated that he/she felt that homeopathic medicines were effective.

4.1.3.2 Simplexes

The data showed that 26.5% indicated that the pharmacy stocked homeopathic simplexes (n=13, see Table 4.4). The majority indicated that they did not know (53.1%, n=26).

Table 4.4: Responses to “Does the pharmacy you work in stock homeopathic simplexes?”

	Frequency	Percent
yes	13	26.5
no	10	20.4
Don't know	26	53.1
Total	49	100.0

Considering that the majority of homeopathic OTC's stocked in pharmacies are complexes (see figure 4.9), it is more acceptable that participants do not know what a simplex is.

4.1.3.3 Potencies Of Simplexes Stocked

Responses to the potencies of simplexes stocked are shown below in Figure 4.8. The majority responded that they did not know (79.6%). Of those who knew, the 30cH category was the most common response (24.5%, n=12).

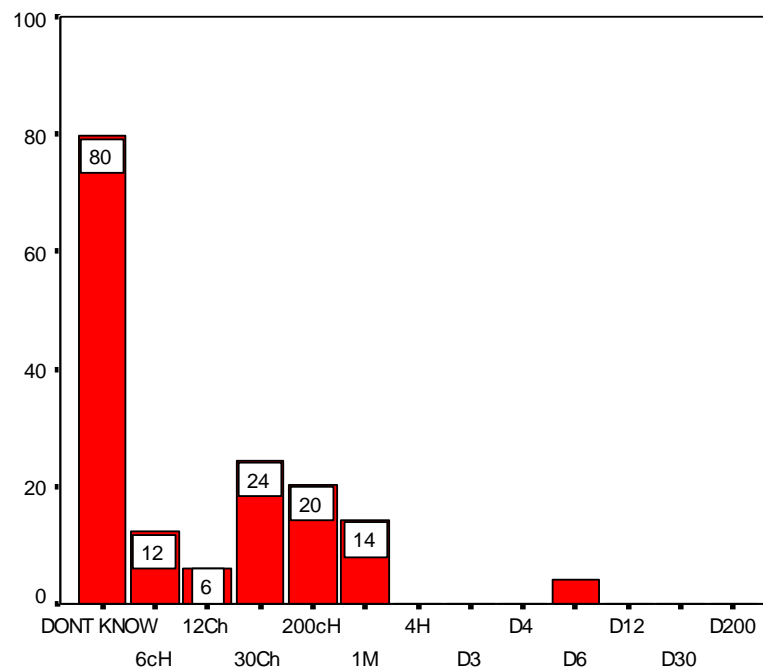


Figure 8: Potencies of homeopathic simplexes stocked

Presumably the small percentage of respondents who knew what simplexes are, were able to list them. It is interesting to note that there are 30cH, 200cH and even 1M potencies stocked. Training on administration of these types of potencies is crucial. Many would argue that only a homeopath should be allowed to prescribe these potencies as knowledge of possible homeopathic aggravations and remedy interactions is necessary.

4.1.3.4 Complexes

The data showed that 30.6% responded that their pharmacy stocked homeopathic complexes (n=15). There were 28 participants who did not know (Table 4.5).

Table 5: Responses to “Does the pharmacy you work in stock homeopathic complexes?”

	Frequency	Percent
yes	15	30.6
no	6	12.2
Don't know	28	57.1
Total	49	100.0

Considering that the majority of respondents have worked in the pharmacy for over 10 years it would be expected that they would know whether they stocked complexes and simplexes. This basic fundamental lack of knowledge regarding homeopathic OTC's is a cause for concern and further investigation.

4.1.3.5 Homeopathic Ranges

The homeopathic ranges stocked are shown in Figure 4.9. The most common range was Natura (70%) followed by Weleda (43%).

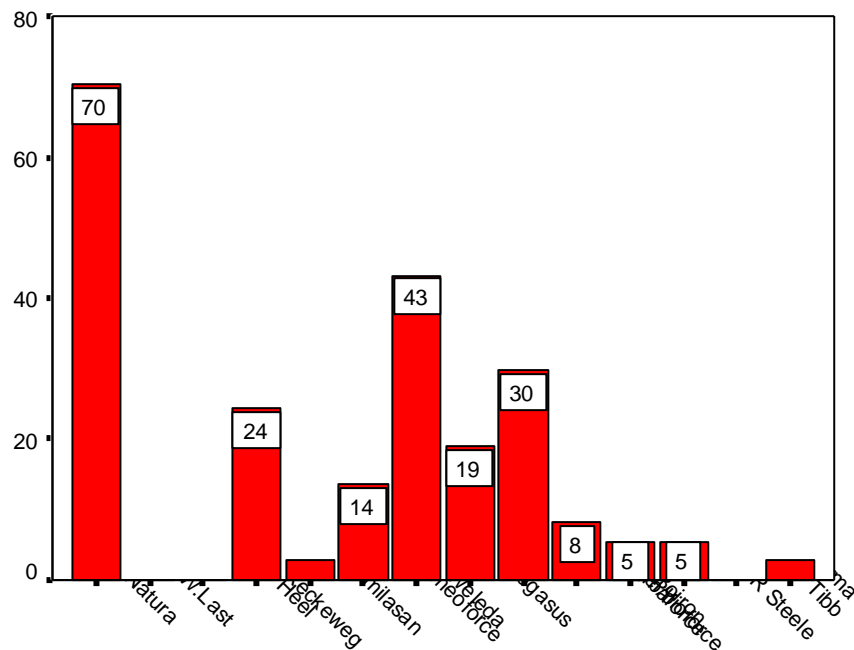


Figure 4.9: Percentage of participants whose pharmacy stocked the specified homeopathic ranges

The Natura website states that the “Natura laboratory manufactures a full range of homeopathic remedies, covering most diseases and conditions”. Unless a diagnosis has been made by a medical practitioner, it would be surmised that the diagnosis of a disease or condition would be left to self-diagnosis by the public or by the pharmacy front shop assistants who are not legally or medically qualified to assume such a responsibility. The problems arise when incorrect assumptions are made regarding disease conditions. The results of “misdiagnosis” can be detrimental to the user’s condition and prognosis.

4.1.3.6 Homeopath

As shown in Table 4.6, only 16.3% of respondents had a qualified or student homeopath working in the pharmacy with them.

Table 4.6: Response to “Do you have a qualified or student homeopath working in your pharmacy?”

	Frequency	Percent
yes	8	16.3
no	41	83.7
Total	49	100.0

The presence of a homeopath will enforce the front shop assistants level of knowledge but not necessarily improve their level of understanding of homeopathy.

4.1.3.7 Dispensing

Only 22.4% of participants responded “yes” to the question shown in Table 4.7 below.

Table 4.7: Response to “Does the pharmacy you work in dispense homeopathic medicines as per script?”

	Frequency	Percent
yes	11	22.4
no	24	49.0
Don't know	14	28.6
Total	49	100.0

The question may be open to misinterpretation as the pharmacy front shop assistant would usually relate the pharmacist to being the person responsible for dispensing from the dispensary; hence they may automatically assume that they are not allowed to dispense in this capacity and may answer ‘no’ as per this interpretation. The word “script” will have similar connotations as it is generally accepted that only medical doctors will write scripts. It is probably not well known that homeopathic doctors can also write scripts for homeopathic remedies which can be filled out at a retail outlet which stocks the appropriate homeopathic remedies. The word ‘dispense’ means, to deal out in portions: to distribute: to administer.

4.1.3.8 Dispenser

Of those pharmacies where dispensing was done, the majority of the dispensing was done by persons other than the participant him/herself (Figure 4.10).

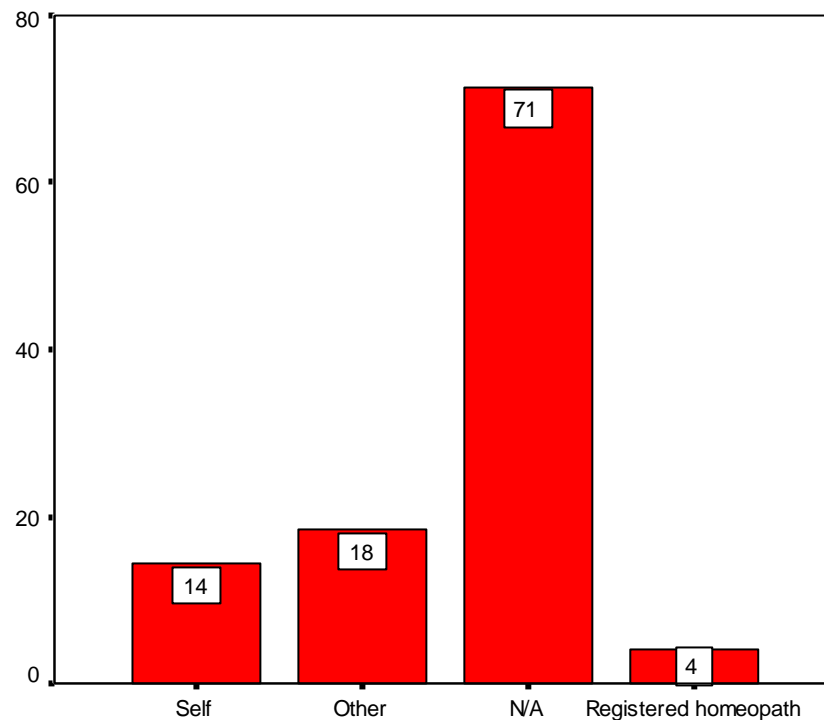


Figure 4.10: Responses to the question of who dispenses the homeopathic medicine to the public.

Based on the argument that the front shop assistant is regarding dispensing in terms of the allopathic paradigm, it is understandable that many respondents did not regard themselves as an option for dispensing a remedy for a script. Seventy one percent was not applicable as the respondent had answered 'no' or 'I don't know' to the previous question and hence would not know who, if anyone dispensed the homeopathic medicines.

4.1.4 Remedies and Ailments- Section D

4.1.4.1 Remedy selection

Most respondents simply supplied the customers with the specific remedy they requested (65%). There was a high frequency of positive responses to asking questions relating to the ailment in order to find the appropriate homeopathic remedy (51%, n=25), and using labels as a guide (n=31, 63.3%). Only 1 participant (2.0%) recommended remedies other than homeopathic. See Figure 4.11.

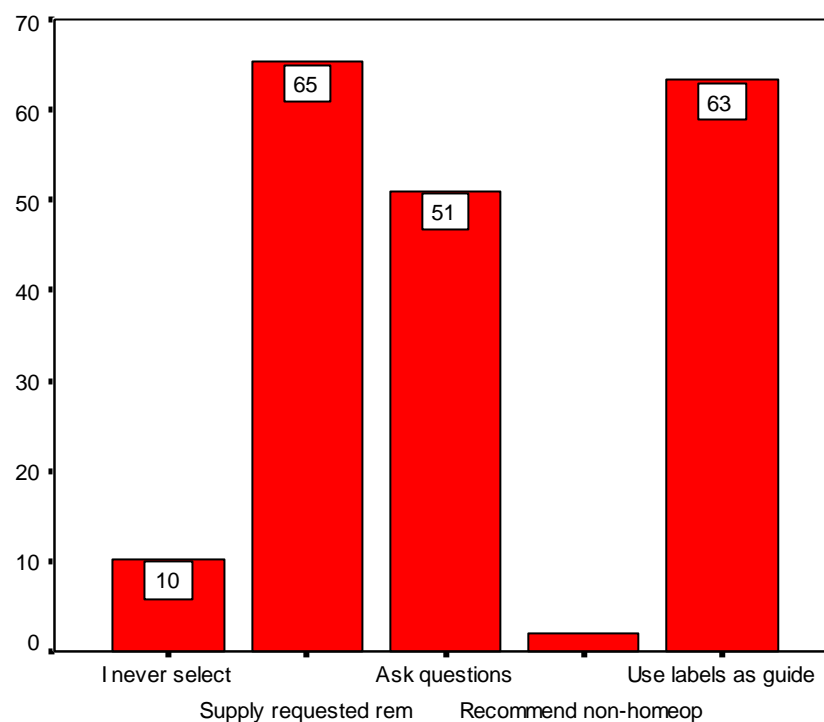


Figure 4.11: Methods which respondents used to select a homeopathic remedy for customers

Considering that the majority of respondents did not know what a simplex or complex was and the fact that the majority of training is on specific product information as opposed to principles of homeopathy; it can be assumed that the reason why questions are being asked is to narrow down the persons ailment to the appropriate label description and in that way, find the product which most closely matches the clients description of their ailment. Based on

this premise it can be argued that respondents are confusing the concept of 'like cures like' as label identification.

4.1.4.2 Ailments

Figure 4.12 shows the percentage of participants who have recommended homeopathic remedies for a variety of ailments. The most frequent ailment for which homeopathic remedies were recommended was colds (63.3%), followed by bruises (55.1%) and sinusitis (51%). Menopause also ranked highly (49%).

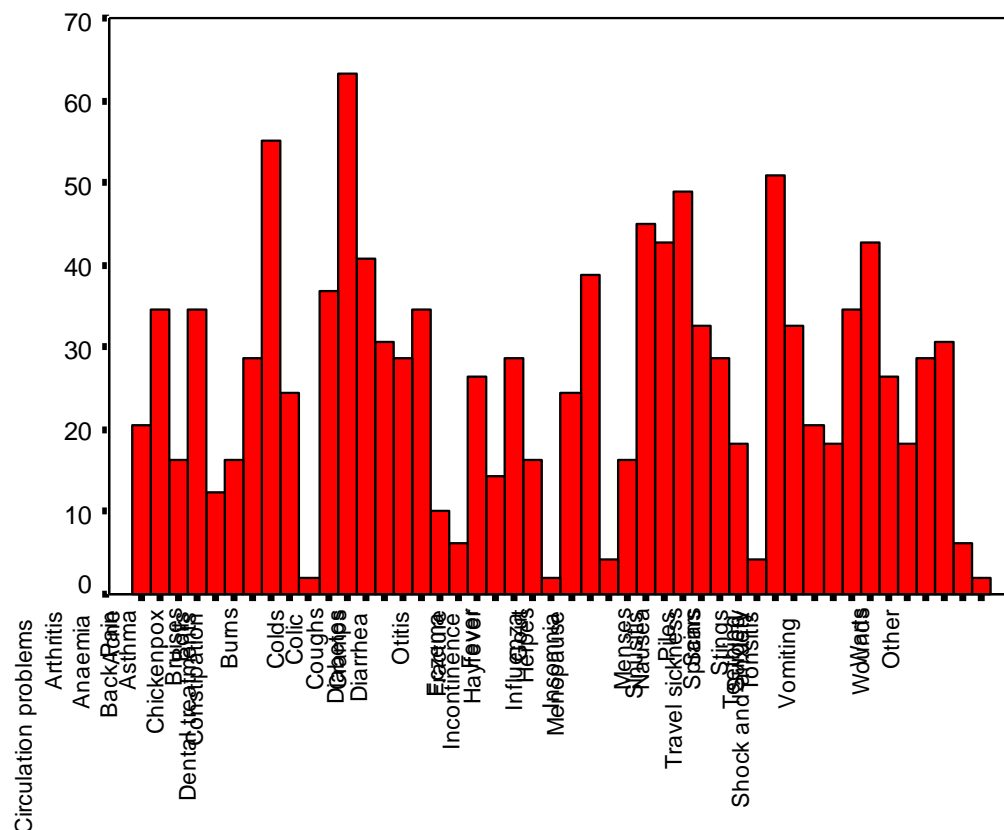


Figure 4.12: Ailments for which respondents have recommended homeopathic remedies

This list of ailments was obtained from a Natura handbook which is a reference of remedies and common ailments which according to the booklet can be helped with certain recommended remedies. Many of the above ailments, specifically: abdominal pain, back pain, circulation problems, diarrhoea, fever, stings, surgery, travel sickness, vomiting and wounds, may require a medical examination or further testing. These ailments can be

indicators of a far more complicated condition or disease which requires a trained professional to establish the degree of severity.

A lay person, in this case the pharmacy front shop assistant does not have the appropriate training to recognize signs and symptoms of potentially problematic diseases and in so doing can be indirectly doing the user more harm than good by providing them with something which may palliate or aggravate their state. For example, bruises are a common ailment for which OTC homeopathic medicines were commonly given. There are many reasons for bruising to occur and it can be a sign of liver and circulatory problems, a side effect of certain corticosteroids, physical abuse or simply a common accident; however without the appropriate assessment, it would be very difficult for a lay person to ascertain the reasoning behind the bruising if the user was not forthcoming.

4.1.4.3 Referral

Figure 4.13 shows the referral patterns of participants. The majority of subjects (59.2%) referred customers to a General Practitioner (GP). Referral to a homeopath was 24% and to a chiropractor was 22%.

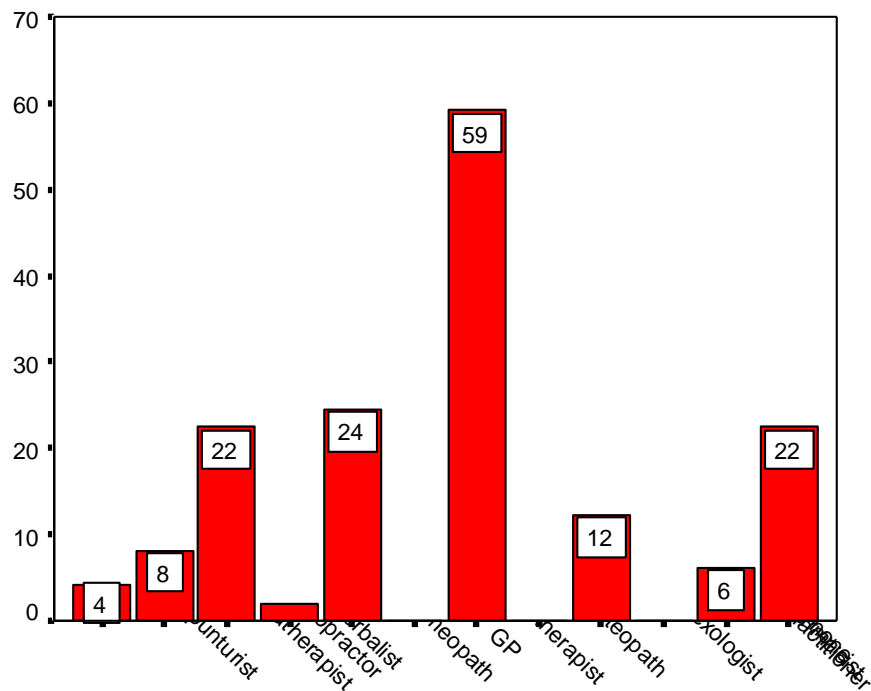


Figure 4.13: Percentage of participants who have referred customers to other practitioners

These statistics show that there is little association with CAM therapies. The average respondents were female, mid age and possibly mothers who had mostly been exposed to the allopathic paradigm and hence would tend to refer mostly to General Practitioners based on their historical paradigm of medicine and care.

4.1.5 Personal experience of homeopathy – Section E

4.1.5.1 Consultation with homeopath

The data showed that 22.4% had been to a homeopath as a patient. This is shown in Table 4.8.

Table 4.8: Responses to question “Have you ever consulted a homeopath as a patient?”

	Frequency	Percent
yes	11	22.4
no	38	77.6
Total	49	100.0

The majority would still consult a General Practitioner as seen in the previous question regarding referrals. Due to the fact that homeopathic OTC's are available with an easy-to-use label identification method, the respondents would not regard seeing a homeopath as important or necessary.

4.1.5.2 Personal use of homeopathic medicines

Most participants had taken homeopathic medicines (73.5%, Table 4.9).

Table 4.9: Responses to question “Have you ever taken homeopathic medicines?”

	Frequency	Percent
yes	36	73.5
no	13	26.5
Total	49	100.0

This reinforces the argument that the respondents are self-prescribing homeopathic OTC medication and do not regard a consultation with a homeopath as necessary. This can be potentially problematic as based on their level of training and understanding they may not know their limitations with homeopathic self medicating.

4.1.5.3 Efficacy of homeopathic medicines

The data showed that 91.8% of the respondents indicated that they think homeopathic medicines are effective. Only four subjects responded to the contrary. This is shown in Table 4.10.

Table 4.10: Responses to question “Do you think homeopathic medicines are effective?”

	Frequency	Percent
yes	45	91.8
no	4	8.2
Total	49	100.0

Considering that the majority do not refer to homeopaths, have not consulted a homeopath and self prescribe homeopathic medicines, it is interesting to note that 91.8% of the respondents still regard homeopathic medicines as effective. There could be a variety of explanations for this:

- a) The remedies are working effectively
- b) The users with positive results are returning and purchasing more OTC homeopathic medicines
- c) The users who have not had positive results have sought another form of medical intervention and have not reported back to the pharmacy front shop assistant.

4.1.5.4 Training

The majority of respondents (95.9%) felt they needed more training in homeopathy (Table 4.11).

Table 4.11: Responses to question about need for further training in homeopathy

	Frequency	Percent
yes	47	95.9
no	2	4.1
Total	49	100.0

Presumably, considering that the majority of respondents have a matric level education, are probably mothers and are between the ages of 36-45, it is understandable that they would want more training as knowledge gives them a sense of self worth and area of experiential expertise. It is important for people especially at this age in life to feel a sense of identity and that they have achieved something and even though their training is not certification level training, it helps to add to the identity of the pharmacy front shop assistant as being knowledgeable about health. It is also a natural tendency for a mother to want to know as much as possible about health matters in order for her to help her family.

4.1.5.5 Attitudes of the participants towards homeopathic remedies

4.1.5.5.1 Reasons for efficacy

Participants were asked why they think homeopathic medicines are effective. The majority (44.9%) responded that it was because they contained herbs (n=22), 32.7% said it was because of the principle of “like cures like”, 26.5% responded that it was because people have faith in the medicines, 12.2% believed it was because a very small dose is used, 10.2% said other reasons and 4.1% said they are ineffective. This is shown in Figure 4.14.

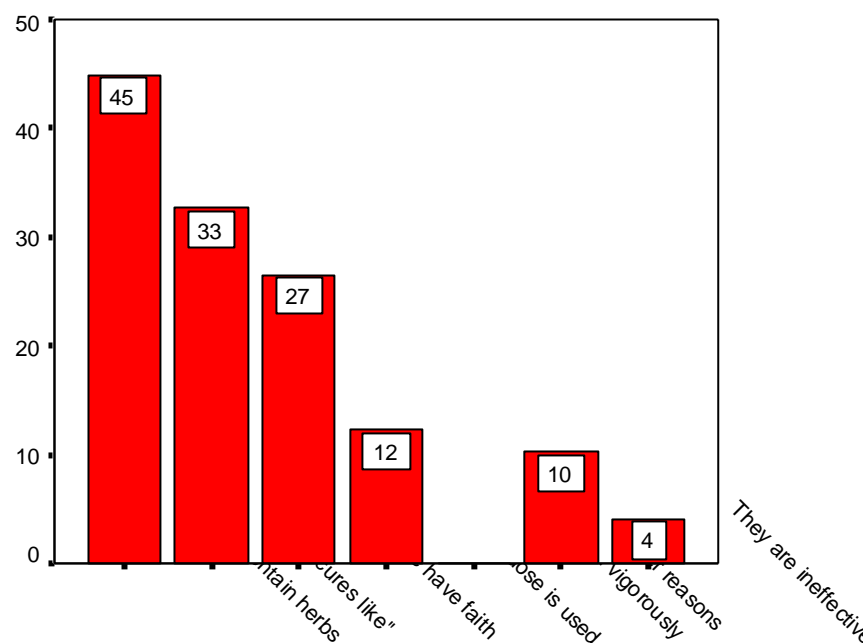


Figure 4.14: Reasons given for why homeopathy is effective

The basic principles of homeopathy were given as the options:

- a) “Like cures like”
- b) Small dose is used
- c) Shaken vigorously

These 3 options should have featured in equal proportions as the answer to the above question; however the majority of respondents thought that it was due to the remedies containing herbs, a common misconception being that homeopathy is the same as herbalism. By choosing the option, 'People have faith' clearly reiterates that the respondents do not have an understanding of how homeopathy works and that many would regard homeopathy as being placebo.

Based on the previous findings, it seems that there is a low level of knowledge and understanding of homeopathy. This will be shown in the tables that follow.

4.1.6 Knowledge of homeopathy – Sections F to H

4.1.6.1 Level of knowledge

There was generally a low level of knowledge regarding homeopathy in the sample. The mean score was 45.9% and the median was 40%. The lowest score was 24.4% and the highest was 88.9%. This is shown in Table 4.12 for the entire sample. The sample was split at a score close to the median of 40%. All scores below this score were considered as relatively poor level of knowledge while scores equal to and above this were considered as good. There were 20 (40.8%) with poor scores and 29 (59.2%) with good scores.

Table 4.12: Statistics for knowledge score (%) (n=49)

Mean	45.9410
Median	40.0000
Std. Deviation	17.56462
Minimum	24.44
Maximum	88.89

Responses to Section F

4.1.6.1.1 Touching homeopathic medicines

The responses to individual questions which made up the knowledge score were further examined in Tables 4.13 to 4.17. The correct options are denoted with an asterisk (*) for the purposes of the reader/s of this dissertation.

Table 4.13: Responses to reasons why one should not touch most homeopathic medicines with one's fingers

		Count	Column %
Its unhygienic*	yes	12	24.5%
	no	37	75.5%
Substances interfere with medicine*	yes	19	38.8%
	no	30	61.2%
Pills coated with medicine*	yes	3	6.1%
	no	46	93.9%
Should wear latex gloves	yes	2	4.1%
	no	47	95.9%
Wash and disinfect hands	yes	6	12.2%
	no	43	87.8%
I don't know	yes	12	24.5%
	no	37	75.5%

If respondents had a good level of understanding of homeopathy then the 'yes' answers should score higher than the 'no' answers for these statements.

4.1.6.1.2 Oral administration

Table 4.14: Responses to how homeopathic medicines should be taken orally

		Count	Column %
Using sterilized metal utensils	yes	0	.0%
	no	49	100.0%
Away from food*	yes	5	10.2%
	no	44	89.8%
Using distilled water	yes	4	8.2%
	no	45	91.8%
Teeth need to be brushed	yes	4	8.2%
	no	45	91.8%
Swallow immediately	yes	2	4.1%
	no	47	95.9%
Dissolved in mouth*	yes	39	79.6%
	no	10	20.4%
I don't know	yes	10	20.4%
	no	39	79.6%

The respondent should know that homeopathic medicines are taken away from food because many homeopathic remedies are absorbed through the mucous membranes of the mouth and other substances in the mouth may interfere with the efficacy of the remedy.

4.1.6.1.3 Storage of homeopathic medicines

Table 4.15: Responses to how homeopathic medicine should be stored

		Count	Column %
Away from direct sunlight*	yes	37	75.5%
	no	12	24.5%
In a warm dark place	yes	0	.0%
	no	49	100.0%
Away from electrical outlet points*	yes	3	6.1%
	no	46	93.9%
Away from cellular phones*	yes	3	6.1%
	no	46	93.9%
In moist conditions	yes	1	2.0%
	no	48	98.0%
In the refrigerator	yes	0	.0%
	no	49	100.0%
I don't know	yes	12	24.5%
	no	37	75.5%

These responses seem to be based on the respondents' knowledge of the storage of allopathic medicines. Respondents do not understand that homeopathic remedies have specific resonance patterns because they have little or no understanding of potentization and succession and hence would not understand the impact of radiation and electricity on the remedies.

Responses to Section G

4.1.6.1.4 Potentization

Table 4.16: Responses to statements indicating understanding of the term potentization

		Count	Column %
Which of the following statements indicates your understanding of the term Potentization in Homeopathy?	Never heard of it	30	61.2%
	Heard of term but don't know anything about it	4	8.2%
	A specific method to study a patient's case	1	2.0%
	A specific method used to prepare homeopathic medicines*	14	28.6%

The majority have never heard of potentization.

4.1.6.1.5 Homeopathic aggravation

Table 4.17: Responses to statements indicating understanding of homeopathic aggravation

Which of the following statements indicates your understanding of the term Homeopathic Aggravation?	Never heard of it	24	49.0%
	Heard of term but don't know anything about it	10	20.4%
	A sign that the condition is worsening	8	16.3%
	Increase in mental irritability caused by symptoms	1	2.0%
	Increase in intensity of symptoms already present*	6	12.2%

A common misconception is that homeopathy is natural and so will not cause an exacerbation in symptoms or result in the patient feeling worse; however this is not entirely true. Sometimes if the incorrect remedy is given or the incorrect potency is prescribed, an exacerbation or 'worsening' of existing symptoms can occur and this is known by homeopaths as an aggravation. If a user is not told that this is a possibility, they will probably seek other intervention and it is likely that they would not continue with the homeopathic medicine. If the pharmacy front shop assistant is not aware of this possibility, it is understandable that they would assume that the improvement of the user is due to the homeopathic medicine or if the user does not return that a positive result was achieved.

4.1.6.1.6 Succussion

Table 4.18: Responses to statements indicating understanding of the term succussion

Which of the following statements indicates your understanding of the term Succussion in relation to homeopathy?	Never heard of it	29	59.2%
	Heard of term but don't know anything about it	9	18.4%
	A method of shaking the medicine between dilutions*	6	12.2%
	Homeopathic treatment for head injury	3	6.1%
	Increase in intensity of symptoms	2	4.1%

All homeopathic medicines are succussed and potentized and this is why they are classed as homeopathic and not naturopathic or herbal. The majority of respondents have never heard of it which again highlights the lack of understanding of homeopathy.

4.1.6.1.7 Founding of homeopathy

Table 4.19: Responses to where homeopathy was founded

Where was homeopathy founded?	don't know	32	65.3%
	in the East and is based on Eastern Philosophy	2	4.1%
	In Germany by Dr Samuel Hahnemann*	15	30.6%

This question would not really indicate the respondent's level of understanding of homeopathy; however the small amount of respondents who knew the answer probably obtained it from the booklets and brochures available to the public.

4.1.6.1.8 Law of Similars

Table 4.20: Responses to statements indicating understanding of the term Law of Similars

Which of the following statements indicates your understanding of the term Law of Similars?	never heard of it	25	51.0%
	heard of the term, don't know anything about it	6	12.2%
	many people have similar symptoms	2	4.1%
	because there are so many medicines there are many similarities	5	10.2%
	like cures like*	11	22.4%

The Law of Similars directly relates to the concept of 'like cures like' which many of the respondents regarded as the reason as to why homeopathic medicines are effective. This principle is pivotal in homeopathy and is the basis on which specific homeopathic remedies are prescribed. This reinforces the argument that labels are being used as the indicators for treatment.

4.1.6.1.9 Proving

Table 4.21: Responses to statements indicating understanding of the term proving

Which of the following statements indicates your understanding of the term 'proving' in relation to homeopathy?	never heard of it	23	46.9%
	heard of the term, don't know anything about it	8	16.3%
	substances given to healthy individuals to find out what symptoms are curable by that particular substance*	4	8.2%
	a person receiving a homeopathic medicine who has a dramatic improvement, proves the effectiveness of that particular medicine	6	12.2%
	a placebo-based clinical trial that scientifically proves the effectiveness of homeopathy	8	16.3%

Provings are fundamental in ascertaining the remedy picture, i.e. for whom the remedy can be used to treat and for what conditions it can be used. It is important to understand the concept so that one can recognize when the user may be showing signs of proving a remedy; a clear indication that the remedy is not the correct choice and hence not the similimum. Low potencies are generally used in provings because they tend to allow physical symptoms to manifest more easily in a healthy individual. Many OTC homeopathic remedies are complexes with a variety of low potency single remedies added together to make a complex. If a person is sensitive to homeopathic medicines and responds quickly, they may start to show symptoms which are unrelated to their original symptom picture. This could confuse the lay person and lead to unnecessary panic and further intervention. Clearly the majority of respondents would not know whether a person was showing signs of proving a particular remedy as they have no knowledge of what this is.

4.1.6.1.10 Simplex

Table 4.22: Responses to statements indicating understanding of the term simplex

Which of the following statements indicates your understanding of the term 'simplex' in relation to homeopathy?	never heard of it	20	40.8%
	heard of the term, don't know anything about it	7	14.3%
	the simplicity of the medicines and their application	10	20.4%
	a single remedy*	12	24.5%

This correlates with the earlier data which indicates that the respondents do not understand what a simplex is and hence do not have a good level of knowledge of homeopathy.

4.1.6.1.11 Complex

Table 4.23: Responses to statements indicating understanding of the term complex

Which of the following statements indicates your understanding of the term 'complex' in relation to homeopathy?	never heard of it	17	34.7%
	heard of the term, don't know anything about it	8	16.3%
	the complexity of the medicines and their application	5	10.2%
	more than one homeopathic remedy that has been combined into one medicine*	19	38.8%

This data corresponds with the data in Table 4.5 in section B, where only 30% of the respondents knew whether the pharmacy stocked complexes. Sixty one percent do not know what a complex is.

4.1.6.1.12 Understanding of 'c'

Table 4.24: Responses to statements indicating understanding of the 'c' in relation to homeopathic medicines

Which of the following statements indicates your understanding of the 'c' in relation to homeopathic medicines? e.g. 30cH	never heard of it	28	57.1%
	heard of the term, don't know anything about it	3	6.1%
	a category of homeopathic medicines	4	8.2%
	the medicine has been diluted in the ratio of 1:99*	13	26.5%
	Carbon	1	2.0%

Seventy three percent do not know what the significance of the 'c' is hence will probably not understand what is meant by potency which correlates with previous data.

4.1.6.1.13 Understanding of 'd'

Table 4.25: Responses to statements indicating understanding of the 'd' in relation to homeopathic medicines

Which of the following statements indicates your understanding of the 'd' in relation to homeopathic medicines? e.g. 6D	never heard of it	29	59.2%
	heard of the term, don't know anything about it	4	8.2%
	The substance 'Delinium' which is used as a preservative in homeopathic medicines	4	8.2%
	a category of homeopathic medicines	4	8.2%
	the medicine has been diluted in the ratio 1:9*	8	16.3%

It makes sense that if the respondents don't know what 'c' stands for, that they will not know the significance of 'd'.

4.1.6.1.14 Symptoms

Table 4.26: Responses to statements in relation to homeopaths treating patients and type of symptom consideration

In treating patients homeopaths consider the following types of symptoms	Don't know	9	18.4%
	Mental	1	2.0%
	Physical, mental and emotional*	39	79.6%

The assumption here is that CAM is anything opposite to allopathic medicine and that CAM is based on a holistic approach and hence includes physical, mental and emotional symptoms.

4.1.6.1.15 Responses to Section H

Table 4.27: Responses to Section H

		Count	Column %
a) Herbal teas are homeopathic medicines	true	25	51.0%
	false	15	30.6%
	don't know	9	18.4%
b) Vitamin B12 is a homeopathic medicine	true	2	4.1%
	false	43	87.8%
	don't know	4	8.2%
c) Homeopathic medicines can be added to foods or juices	true	24	49.0%
	false	15	30.6%
	don't know	10	20.4%
d) Homeopathic preparations are available in suppositories	true	20	40.8%
	false	11	22.4%
	don't know	18	36.7%
e) A plastic spoon can be used to dispense homeopathic medicines	true	31	63.3%
	false	8	16.3%
	don't know	10	20.4%
f) Absorbed thorough mucus membranes of body	true	29	59.2%
	false	2	4.1%
	don't know	18	36.7%
g) Work because of the placebo effect	true	11	22.4%
	false	14	28.6%
	don't know	24	49.0%
h) Unscientific - no clinical trials	true	8	16.3%
	false	27	55.1%
	don't know	14	28.6%
i) Homeopath given title of doctor	true	35	71.4%
	false	5	10.2%
	don't know	9	18.4%
j) Poisonous substances used	true	13	26.5%
	false	22	44.9%
	don't know	14	28.6%

k) Never made in a milk sugar base	true	16	32.7%
	false	9	18.4%
	don't know	24	49.0%
l) Can cause symptoms to get worse before they get better	true	18	36.7%
	false	13	26.5%
	don't know	18	36.7%
m) Succussion used to treat concussion	true	3	6.1%
	false	12	24.5%
	don't know	34	69.4%
n) Diluted and shaken in a certain way	true	16	32.7%
	false	12	24.5%
	don't know	21	42.9%
o) "Complex" refers to untreatable condition	true	4	8.2%
	false	22	44.9%
	don't know	23	46.9%
p) Homeopathic medicines work on mental and emotional feelings	true	34	69.4%
	false	3	6.1%
	don't know	12	24.5%

Commentary on each analysis of the statements above is as follows:

- a) Respondents have indicated that homeopathic medicines are effective because they are herbal; hence the assumption that herbal teas are homeopathic.
- b) Vitamin B12 would not be stocked in the same area of the pharmacy as the homeopathic ranges; hence it can be assumed that it is not homeopathic.
- c) Many respondents do not realize that homeopathic medicines cannot be taken with foods; hence the assumption that juices would not interfere with the medicines is also incorrect. Some homeopathic ranges actually recommend that fruit juice can be given when administering homeopathic medicines.
- d) The respondents may be aware of the Heel suppositories for children and also may assume that if allopathic medicines can be made into

suppositories then there should be no reason why homeopathic medicines can't make use of this mechanism of delivery.

- e) This response can be based on their understanding of the administration of allopathic medicines.
- f) Many respondents know that many homeopathic medicines are taken under the tongue and hence can relate this to mucous membranes.
- g) It is highly probable that the respondents do not know the meaning of the word 'placebo' and hence the majority would answer that they 'do not know'. If the respondent did know the meaning of the word, it would not make sense that they thought homeopathic medicines are effective. This also supports the fact that the respondents do not understand potentization.
- h) This response confirms that the respondents do not know the meaning of the word 'placebo' and the fact that infinitesimal doses are used. They are relating clinical trials to measured doses such as herbalism.
- i) With the recent upsurge in the popularity of CAM therapies, respondents may have been exposed to this point.
- j) Many respondents relate homeopathy to herbalism and probably would not consider that other substances are used such as snake venom, arsenic, and belladonna etcetera. This also indicates that they are not aware of what is listed on the ingredients lists of many OTC homeopathic complexes.
- k) Only 18.4% of all the respondents know that one of the main carriers of homeopathic remedies is milk sugar. This could be a potential problem if the user is allergic to lactose.
- l) This supports earlier data that indicates that respondents did not know what an aggravation is.
- m) The majority of respondents have indicated that they do not know what succussion is.
- n) This confirms that the respondents do not know what succussion and potentization is.
- o) Confirmation that respondents do not know what a complex is.
- p) This supports the previous argument that homeopathy is viewed as opposite from allopathy and holistic in nature.

4.2 Factors associated with knowledge scores

Since the design of this study was cross-sectional, any factors found to be associated with category of knowledge score (except for demographics) could not be taken as a causal factor or a factor affecting knowledge score because of the possibility of reverse causality. Thus coexisting associations were examined. This was done by highlighting the correct answers of the questionnaire and applying scores to the correct answers.

None of the demographic variables were significantly associated with knowledge score (Tables 4.28-4.31). The only factors which were statistically significantly associated with knowledge score were having received general training ($p=0.005$, Table 4.35); having consulted with a homeopath as a patient ($p=0.017$, Table 4.41) and belief in the principle of like cures like ($p=0.006$, Table 4.45). There were some non-significant associations where a trend towards a difference in groups could be seen. More associations would have been apparent with a higher sample size.

Those participants with a good knowledge of homeopathy were more likely than those with a poor knowledge to have recommended homeopathic remedies for arthritis ($p=0.031$), back pain ($p=0.015$), coughs ($p=0.024$), diarrhoea ($p=0.007$), Otitis ($p=0.032$), fever ($p=0.015$), gout ($p=0.016$), hayfever ($p=0.007$), incontinence ($p=0.015$), insomnia ($p=0.009$), nausea ($p=0.024$), piles ($p=0.007$), surgery ($p=0.007$), teething ($p=0.031$), travel sickness ($p<0.001$), vomiting ($p=0.007$) and warts ($p=0.024$). They were also more likely to have referred patients to a homeopath ($p=0.016$) than those with a poor knowledge of homeopathy.

4.2.1 Knowledge score – Gender

Table 4.28: Cross-tabulation of knowledge score category and gender

			Knowledge score category		Total
			Poor knowledge	Good knowledge	
Gender	male	Count	1	1	2
		Row %	50.0%	50.0%	100.0%
	female	Count	19	28	47
		Row %	40.4%	59.6%	100.0%
Total		Count	20	29	49
		Row %	40.8%	59.2%	100.0%

P=1.000

Unfortunately there were only 2 male respondents which do not really give an accurate idea of the difference of knowledge between males and females. The data obtained indicates that males and females have a similar level of knowledge.

4.2.2 Knowledge score – Age

Table 4.29: Cross-tabulation of knowledge score category and age group

			knowledge score category		Total
			Poor knowledge	Good knowledge	
Age group	<25	Count	6	3	9
		Row %	66.7%	33.3%	100.0%
	26-35	Count	4	5	9
		Row %	44.4%	55.6%	100.0%
	36-45	Count	6	12	18
		Row %	33.3%	66.7%	100.0%
	46-55	Count	3	6	9
		Row %	33.3%	66.7%	100.0%
	56-65	Count	1	2	3
		Row %	33.3%	66.7%	100.0%
	>65	Count	0	1	1
		Row %	.0%	100.0%	100.0%
Total		Count	20	29	49
		Row %	40.8%	59.2%	100.0%

P=0.560

The data indicates that the older the respondents are, the better their level of knowledge. The youngest age group (<25) had the highest percentage (66,7%) of poor knowledge possibly due to people of this age not needing to concern themselves with health related problems.

4.2.3 Knowledge score - Race

Table 4.30: Cross-tabulation of knowledge score category and race

			knowledge score category		Total
			Poor knowledge	good knowledge	
Race	Black	Count	1	1	2
		Row %	50.0%	50.0%	100.0%
	Colored	Count	2	3	5
		Row %	40.0%	60.0%	100.0%
	Indian	Count	7	10	17
		Row %	41.2%	58.8%	100.0%
	White	Count	10	15	25
		Row %	40.0%	60.0%	100.0%
Total		Count	20	29	49
		Row %	40.8%	59.2%	100.0%

P=0.994

As previously argued the Black population are not necessarily involved as pharmacy front shop assistants, possibly due to their past lack of exposure to allopathic doctors and pharmaceutical medicines; hence it is not completely possible for two respondents to give a true reflection of the level of knowledge of the average lay Black person regarding homeopathy.

It is interesting to note that the Coloured front shop assistants, who do not have any fixed or clear historical background as far as medicinal exposure, have the same level of knowledge of homeopathy as the Indians and Whites. Whites have been typically found in other studies to be the main users of Complementary and Alternative Medicines.

4.2.4 Knowledge score – Education

Table 4.31: Cross-tabulation of knowledge score category and education

			Knowledge Score Category		Total
			Poor knowledge	Good knowledge	
Highest Education level	< Matric	Count	3	4	7
		Row %	42.9%	57.1%	100.0%
	Matric	Count	14	19	33
		Row %	42.4%	57.6%	100.0%
	Degree	Count	0	1	1
		Row %	.0%	100.0%	100.0%
	Diploma	Count	0	2	2
		Row %	.0%	100.0%	100.0%
	Other	Count	1	1	2
		Row %	50.0%	50.0%	100.0%
	Degree health related (Allopathic	Count	1	0	1
		Row %	100.0%	.0%	100.0%
	Certification course in alternate health	Count	1	1	2
		Row %	50.0%	50.0%	100.0%
	Diploma health related (CAM)	Count	0	1	1
		Row %	.0%	100.0%	100.0%
Total		Count	20	29	49
		Row %	40.8%	59.2%	100.0%

P=0.733

- The matric and below level of education respondents being the majority are generally those respondents who have worked for 10 years and longer in the pharmacies and have had limited exposure to homeopathy based mainly on their working environment.
- The degree and diploma categories have good knowledge scores and this could be due to greater knowledge and possibly broader reading habits.

- c) The respondent with the health related degree had a poor knowledge score. This is surprising. One can only assume that this degree was not in a CAM related field.
- d) Certification courses in alternate health may not necessarily cover the principles of homeopathy and hence this knowledge score is evenly distributed.
- e) There was only one respondent doing a diploma which was health related and he/she scored a good knowledge score.

4.2.5 Knowledge score – Position held

Table 4.32: Cross-tabulation of knowledge score category and position held

			knowledge score category		Total
			Poor knowledge	good knowledge	
Position held	Manager	Count	1	2	3
		Row %	33.3%	66.7%	100.0%
	Full time	Count	18	22	40
		Row %	45.0%	55.0%	100.0%
	Part time	Count	1	5	6
		Row %	16.7%	83.3%	100.0%
Total		Count	20	29	49
		Row %	40.8%	59.2%	100.0%

P=0.405

The majority of the respondents are full time employees and their knowledge score is quite evenly distributed with only 55% having a good knowledge score. Considering that they are dealing with the public on a daily basis and providing guidance with regard to products, their knowledge score should definitely be higher.

It is to be expected that managers have a better knowledge score and this is the case, as indicated by a 66.7% good knowledge score.

Part time employees are the minority and based on the previous arguments (see 4.1.2.1) are likely to be the respondents who are studying health related subjects or wanting to gain experiential exposure because they have a vested interest in the field of CAM or medicine.

4.2.6 Knowledge score – work experience

Table 4.33: Cross-tabulation of knowledge score category and work experience

			knowledge score category		Total
			Poor knowledge	good knowledge	
Work experience	1 year or less	Count	3	2	5
		Row %	60.0%	40.0%	100.0%
	1-3 years	Count	4	7	11
		Row %	36.4%	63.6%	100.0%
	3-5 years	Count	2	4	6
		Row %	33.3%	66.7%	100.0%
	5-10 years	Count	5	6	11
		Row %	45.5%	54.5%	100.0%
	>10 years	Count	6	10	16
		Row %	37.5%	62.5%	100.0%
Total		Count	20	29	49
		Row %	40.8%	59.2%	100.0%

P=0.884

The majority of full time employees who have worked for longer than 10 years had a good knowledge score. There was a slight decline in knowledge score in the 5-10 years of work experience group. This could possibly be related to political transformation issues in South Africa which occurred in 1994 and resulted in new laws regarding black empowerment job positions. This is possibly a time frame in which people were employed who had not had much previous exposure to allopathic medicine or CAM.

4.2.7 Knowledge score – Homeopathy training

Table 4.34: Cross-tabulation of knowledge score category and homeopathy training

			knowledge score category		Total
			Poor knowledge	good knowledge	
Homeopathy training	yes	Count	10	22	32
		Row %	31.3%	68.8%	100.0%
	no	Count	10	7	17
		Row %	58.8%	41.2%	100.0%
Total		Count	20	29	49
		Row %	40.8%	59.2%	100.0%

P=0.075

The data indicates that training related specifically to homeopathy does make a difference in the knowledge score category. The majority of respondents who had received training scored a good knowledge score; however even with no homeopathy specific training a reasonable proportion of the respondents (41.2%) still had a good level of knowledge. This would seem to indicate that those who are receiving the training are receiving product specific training which can be self taught by those not receiving the training simply by becoming familiar with the label descriptions.

4.2.8 Knowledge score – General Training

Table 4.35: Cross-tabulation of knowledge score category and general training

			knowledge score category		Total
			Poor knowledge	good knowledge	
General Training	yes	Count	13	28	41
		Row %	31.7%	68.3%	100.0%
	no	Count	7	1	8
		Row %	87.5%	12.5%	100.0%
Total		Count	20	29	49
		Row %	40.8%	59.2%	100.0%

P=0.005

General training would be received more readily by the full time employees and this data is highly significant in that there is a large discrepancy between the group that received general training with a good knowledge score of 68.3% and the group that had not received any general training with a very high poor knowledge score of 87.5%. A possible explanation is that the minority of respondents (8) had not received general training and may have been working in the pharmacy for too short a period of time (1 year or less) and had not yet received any general training.

4.2.9 Knowledge score – Homeopath in pharmacy

Table 4.36: Cross-tabulation of knowledge score category and qualified homeopath working in pharmacy

			knowledge score category		Total
			Poor knowledge	good knowledge	
Qualified homeopath working in shop	yes	Count	3	5	8
		Row %	37.5%	62.5%	100.0%
	no	Count	17	24	41
		Row %	41.5%	58.5%	100.0%
Total		Count	20	29	49
		Row %	40.8%	59.2%	100.0%

P=1.000

There seems to be no significant difference in the knowledge score between the groups based on whether or not a homeopath was present in the pharmacy.

4.2.10 Knowledge score - Dispensing

Table 4.37: Cross-tabulation of knowledge score category and dispensing homeopathic medicine

			knowledge score category		Total
			Poor knowledge	good knowledge	
Dispense homeopathic medicines as per script	yes	Count	4	7	11
		Row %	36.4%	63.6%	100.0%
	no	Count	8	16	24
		Row %	33.3%	66.7%	100.0%
	N/A	Count	8	6	14
		Row %	57.1%	42.9%	100.0%
Total		Count	20	29	49
		Row %	40.8%	59.2%	100.0%

P=0.334

There is a good knowledge score in the respondents who answered that their pharmacy did not dispense homeopathic remedies per script. There is no significant difference in the level of knowledge between the respondents who were exposed to homeopathic medicines dispensed per script as opposed to those who were not exposed to this.

4.2.11 Knowledge score – Self dispenses

Table 4.38: Cross-tabulation of knowledge score category and self dispenses

			knowledge score category		Total
			Poor knowledge	Good knowledge	
Self dispenses	yes	Count	4	3	7
		Row %	57.1%	42.9%	100.0%
	no	Count	16	26	42
		Row %	38.1%	61.9%	100.0%
Total		Count	20	29	49
		Row %	40.8%	59.2%	100.0%

P=0.422

This data reinforces the argument that those respondents who are self dispensing homeopathic medicines have a poor knowledge of homeopathy which is both potentially harmful to the user and to the profession of homeopathy as inaccurate advice is being given to the public.

4.2.12 Knowledge score – Other dispenses

Table 4.39: Cross-tabulation of knowledge score category and other dispenses

			knowledge score category		Total
			Poor knowledge	good knowledge	
Other dispenses	yes	Count	2	7	9
		Row %	22.2%	77.8%	100.0%
	no	Count	18	22	40
		Row %	45.0%	55.0%	100.0%
Total		Count	20	29	49
		Row %	40.8%	59.2%	100.0%

P=0.277

In this regard the respondent is possibly interpreting the word 'dispense' as the task of only the pharmacist. The front shop assistant is still required to advise on homeopathic OTC's.

4.2.13 Knowledge score – Homeopath dispenses

Table 4.40: Cross-tabulation of knowledge score category and homeopath dispenses

			knowledge score category		Total
			Poor knowledge	good knowledge	
Registered homeopath dispenses	yes	Count	0	2	2
		Row %	.0%	100.0%	100.0%
	no	Count	20	27	47
		Row %	42.6%	57.4%	100.0%
Total		Count	20	29	49
		Row %	40.8%	59.2%	100.0%

P=0.507

It has been shown by previous data that the presence of a homeopath in the pharmacy does not significantly increase the knowledge of pharmacy front shop assistants. The respondents may have a good knowledge but it is based on misinterpretation of homeopathic principles. The principle of 'like cures like' is related to remedies being given for a specific ailment as opposed to the respondent being made aware of why the similimum was chosen for the patient based on the unique symptomatology and case taking. It is a 'quasi-allopathic' understanding of homeopathy, where the respondent associates a remedy with an ailment or group of ailments.

4.2.14 Knowledge score – Consulted homeopath

Table 4.41: Cross-tabulation of knowledge score category and having consulted with a homeopath

			knowledge score category		Total
			Poor knowledge	good knowledge	
Have you consulted a homeopath	yes	Count	1	10	11
		Row %	9.1%	90.9%	100.0%
	no	Count	19	19	38
		Row %	50.0%	50.0%	100.0%
Total		Count	20	29	49
		Row %	40.8%	59.2%	100.0%

P=0.017

Those respondents who had consulted a homeopath had a good knowledge score; however it is not because they have a better understanding of the principles of homeopathy but that they have a better idea of what a homeopath does in consultation. They are identifying with label recognition and not with the philosophical under-pinning of homeopathy.

4.2.15 Knowledge score – Used homeopathic medicines

Table 4.42: Cross-tabulation of knowledge score category and taken homeopathic medicines

			knowledge score category		Total
			Poor knowledge	good knowledge	
Taken homeopathic medicines	yes	Count	13	23	36
		Row %	36.1%	63.9%	100.0%
	no	Count	7	6	13
		Row %	53.8%	46.2%	100.0%
Total		Count	20	29	49
		Row %	40.8%	59.2%	100.0%

P=0.331

These respondents are mostly self medicating and are scoring a good knowledge score based on the incorrect understanding of 'like cures like'. This principle should have been more accurately questioned in this survey by possibly listing a group of mental, physical and emotional symptoms which clearly indicate a specific homeopathic remedy in simplex form as the similimum. The similimum could have been given as an option as well as other simplexes which are not related to the symptom picture in any way. By clearly ascertaining whether the 'like cures like' principle is truly understood and not being superimposed on label identification, the results would have probably yielded very different knowledge scores.

4.2.16 Efficacy of homeopathic medicines

Table 4.43: Cross-tabulation of knowledge score category and whether homeopathic medicines are effective

			knowledge score category		Total
			Poor knowledge	good knowledge	
Homeopathic medicines effective	yes	Count	17	28	45
		Row %	37.8%	62.2%	100.0%
	no	Count	3	1	4
		Row %	75.0%	25.0%	100.0%
Total		Count	20	29	49
		Row %	40.8%	59.2%	100.0%

P=0.291

Considering that the majority of respondents think that homeopathic medicines are effective because they contain herbal ingredients and the fact that the knowledge scores should tend more towards poor knowledge because of the misinterpretation of the 'like cures like' principle, this data is relatively insignificant.

4.2.17 Knowledge score – Require training

Table 4.44: Cross-tabulation of knowledge score category and need more training in homeopathy

			knowledge score category		Total
			Poor knowledge	Good knowledge	
Do you need more training in homeopathy	yes	Count	19	28	47
		Row %	40.4%	59.6%	100.0%
	no	Count	1	1	2
		Row %	50.0%	50.0%	100.0%
Total		Count	20	29	49
		Row %	40.8%	59.2%	100.0%

P=1.000

The majority of the respondents (47) felt they needed more training in homeopathy and this was possibly because this question was at the end of section E of the questionnaire. By this point in the questionnaire many questions had been answered and the respondents would have realized that they were not able to answer the majority of the questions confidently and hence realized the need for further training. The majority of full time employees would probably want training to improve their depth and range of knowledge and in that way help them to feel more confident in their position within the pharmacy.

4.2.18 Knowledge score – Like cures like

Table 4.45: Cross-tabulation of knowledge score category and like cures like

			knowledge score category		Total
			Poor knowledge	good knowledge	
Because of the principle of 'like cures like'	yes	Count	2	14	16
		Row %	12.5%	87.5%	100.0%
	no	Count	18	15	33
		Row %	54.5%	45.5%	100.0%
Total		Count	20	29	49
		Row %	40.8%	59.2%	100.0%

P=0.006

These results are highly significant; however are based on an inaccurate interpretation and understanding of the principle 'like cures like'.

4.2.19 Knowledge score – Faith in medicines

Table 4.46: Cross-tabulation of knowledge score category and faith in medicines

			knowledge score category		Total
			Poor knowledge	good knowledge	
People have faith in the medicines	yes	Count	2	11	13
		Row %	15.4%	84.6%	100.0%
	no	Count	18	18	36
		Row %	50.0%	50.0%	100.0%
Total		Count	20	29	49
		Row %	40.8%	59.2%	100.0%

P=0.047

These results are highly significant and highlight the fact that the respondents with good knowledge scores, who believe that homeopathic medicines are effective because people have faith in them, clearly do not understand the science, philosophy or methodology of homeopathy.

Only 36.7% had a good knowledge score and did not agree that homeopathic medicines were effective because of faith; however as previously shown, the other reasons given for the effectiveness of homeopathy was that they contain herbs. Herbs are used as starting materials for some remedies, but the end product, according to Avogadro's law cannot be classed as a herbal medicine. The other reason stated was that 'like cures like' which is a valid homeopathic reason; however as argued based on the data received, is a misinterpreted principle.

4.3 Reviewing the objectives as set out at the beginning of this study

Objective 1: To develop a profile of pharmacy front shop assistants in terms of demographic factors including but not limited to gender, age, language, ethnicity and level of education.

Hypothesis 1:

The profile of the pharmacy front shop assistants would be similar to currently available literature.

This hypothesis was accepted after analysis of results.

Objective 2: To determine the level of understanding of homeopathy amongst pharmacy front shop assistants

Hypothesis 2:

The level of understanding of homeopathy amongst pharmacy front shop assistants would be poor.

This hypothesis was accepted after analysis of results.

Objective 3: To assess the role of the demographic factors (objective one) in terms of their influence of the understanding of homeopathy amongst pharmacy front shop assistants.

Hypothesis 3:

There would be a relationship between the demographic factors and the level of understanding of homeopathy amongst pharmacy front shop assistants.

This hypothesis was accepted after analysis of results.

Chapter Five

Conclusions and recommendations

5.1 Conclusions

As a homeopathic student who had worked in health shops for many years and at the time of starting this research was an owner of a health shop, it became disconcerting to notice how little accurate knowledge there was by the public sector regarding the principles of homeopathy. I also noticed that the people advising the public in health shops, including many owners, were generally poorly educated on the subject even though their attitude toward the profession was generally favourable. Health shop staff and owners are people in the health sector who are taken as having a basic understanding of Complementary and Alternative Medicines (CAM) because they sell over-the-counter CAM.

Recently, with changes in the medicines laws as well as dispensing profits limited to 16% on prescription medication, it became apparent that more pharmacies were stocking more homeopathic over-the-counter (OTC) medication to boost their income. This is probably because the profit margin is not dictated by the same laws regarding scheduled medicines, hence allowing for a larger profit margin. My concern was that the pharmacy front shop assistants, being of similar calibre to the average health shop assistant but primarily aligned with the allopathic paradigm of medicine and hence not as enthusiastic about CAM as the average health shop assistant, would be advising the public inadequately or more disturbingly incorrectly on the principles and medicines of homeopathy and in so doing adversely affecting the profession of homeopathy.

The research was undertaken to accurately ascertain the level of knowledge and understanding of homeopathy amongst pharmacy front shop assistants

and in so doing provide a point of reference for further education in this sector if it was found to be required.

The survey covered a sample group of pharmacies (15%) to be statistically significant which were proportionately calculated according to regions. A larger study would have given a more accurate measure of the level of knowledge, however the sample group of 49 participants provided a relatively good indication of the general trends of the average pharmacy front shop assistants. Based on the interpretation of the data obtained, it is clear that a poor level of knowledge regarding homeopathy exists and that certain basic homeopathic principles are completely misunderstood.

The most specific principle which has been misinterpreted and possibly inaccurately taught to the pharmacy front shop assistant is the principle of 'like cures like'. Unfortunately this principle was not questioned specifically enough in this research and the researcher had to gauge the interpretation of this principle by surmising from data obtained from other questions. It was ascertained that the principle of 'like cures like' was interpreted by the pharmacy front shop assistant as ailment-label identification as opposed to the actual premise of finding the simillimum based on the symptom picture of the customer, composed of mental, emotional and physical symptoms.

Respondents who had previously been exposed to a homeopath within the work environment or as a patient did not necessarily grasp the principles of homeopathy more clearly than others, even though they tended to have a better knowledge of what a homeopath does.

It was however encouraging that the majority of the respondents felt that homeopathy is effective, although their understanding of why it is effective is questionable.

It was also good to see that the majority of respondents were eager for further training on the subject; however the challenge is to ascertain whether accurate knowledge is being taught and disseminated.

5.2 Recommendations

There was generally a relatively poor level of knowledge about homeopathy in this sample.

The mean score was 46%. Participants with a better knowledge of homeopathy were those who had received general training and had consulted with a homeopath as a patient before. Also those who thought that homeopathy was effective because of the principle that “like cures like” were more likely to have better knowledge of homeopathy. However, this was probably known due to their better levels of knowledge (i.e. reverse causality).

A larger study would be recommended as there were a lot of non significant associations which may have missed statistical significance due to small sample size. Thus type II errors may have been made.

It would be beneficial to conduct a survey on the suppliers of homeopathic OTC medicines so as to gauge whether information being disseminated is standardized, acceptable and appropriate in terms of the profession.

In so doing, it would also be interesting and appropriate to conduct a survey on the people who are providing the training for the homeopathic OTC medicines companies. It would be necessary to ascertain the level of knowledge and understanding of homeopathic principles as opposed to knowledge of product specifics.

A public questionnaire would also be recommended; with the specific aim to ascertain whether the public felt comfortable asking pharmacy staff questions about homeopathic products and to gauge whether they felt their queries were accurately addressed. A point of great interest would be to find out exactly what type of questions were asked regarding the customer’s ailment and medication usage. This questionnaire would need to be shorter and very specific.

If further questionnaires are developed following this survey, it is recommended that all principles are clearly questioned and cross questioned to avoid inaccurate data.

It would be beneficial to homeopaths and the homeopathic associations to be aware of the lack of knowledge of those in the position of advising the public on OTC homeopathic medicines and to take appropriate steps to regulate and standardize training available in order to protect the future of the profession.

The public need to be made aware of the benefits of seeking professional homeopathic help and this can be done through advertising and media campaigns as well as encouraging continued and accurate education to OTC dispensers and retailers via the suppliers. The requirements are clear: unbiased educational programs and regular in-house training by regulated CAM providers. Continuous learning is necessary since the field of CAM is constantly evolving and new therapies and medications are always emerging. Evidence based education is important with the provision of clinical data. The attitude and understanding of the pharmacy front shop assistants to CAM will play an important role in customer satisfaction and confidence. Evidence based education of CAM will provide more confidence of CAM and encourage use and reduce concern about safety and adverse effects.

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List of Appendices

APPENDIX A

LETTER OF INFORMATION **(FOCUS GROUP)**

Dear Participant,

Welcome to the focus group and thank you for your interest.

Name of Research Student: Lecia de Villiers

Name of Institution: Durban Institute of Technology

The purpose of this focus group is to validate the use of the attached questionnaire in the assessment of the attitude and understanding towards homeopathy and homeopathic medicines of people who work in pharmacies in the Kwa Zulu Natal area.

Most, if not all, pharmacies sell some form of homeopathic medicine, and it is important to test the level of understanding and attitude of those who are giving advice and selling these products to the public.

The target group I will be aiming the study at consists of people who work in pharmacies, who are able to read and write English and who are involved with advising customers on the various products available.

The questionnaire has been divided into 5 sections.

Section A relates to the participant and is there to establish who they are and their overall educational standing.

Section B relates to the particular pharmacy and is there to establish what type of shop it is and whether they stock homeopathic products, and what ranges they stock.

Section C establishes the position held by the participant, the type of training received in pharmacies, and specifically to see whether training in homeopathy is undertaken. (The effectiveness of the training if given is examined in section D.)

Section D is there to establish the level of understanding of homeopathy; is the participant fully conversant with the main principles of homeopathy, or are there gaps in their knowledge and understanding.

Section E is there to establish what type of attitude participants have towards homeopathy, positive or negative, and to see whether there is any correlation between attitude and levels of understanding of the principles of homeopathy.

You have been asked to participate in this focus group because you represent an area of knowledge. Please provide input and the reasons behind the input as this will assist in the research process. The results of this focus group will only be used for research purposes, and your comments and contributions will remain confidential.

Thank you for your participation,

Yours sincerely,

Lecia de Villiers
(Student of Homeopathy)

APPENDIX B

Confidentiality Statement

Declaration

1. All information contained in the research documents and any information discussed during the focus group meeting will be kept private and confidential. This is especially binding to any information that may identify any of the participants in the research process.
2. The patient files have already been coded and will be kept anonymous, no identification of isolated patient cases will be allowed in the focus group.
3. None of the information shall be communicated to any other individual or organisation outside of this specific focus group as to the decisions of this focus group.
4. The information from this focus group will be made public in terms of a journal publication, which will in no way identify any participants of this research.

Once this form has been read and agreed to, please fill in the appropriate information on the attached sheet and sign to acknowledge agreement

Important note:

This form is to be read and filled in by every member participating in the focus group, before the focus group meeting convenes.

APPENDIX C

INFORMED CONSENT FORM

(To be completed by patient / participant)

Date

Title of research project: A prospective, epidemiological pilot study to investigate the level of knowledge of homeopathy and its contextualization in pharmacy front shop assistants in the Kwa Zulu Natal area.

Name of supervisor

Dr C. Korpelaar

Dr R. Steele

Tel

0312042611

0313326060

Name of research student

Lecia de Villiers

Tel

0846061075

Please circle the appropriate answer

YES

/NO

- | | | |
|--|-----|----|
| 1. Have you read the research information sheet? | Yes | No |
| 2. Have you had an opportunity to ask questions regarding this study? | Yes | No |
| 3. Have you received satisfactory answers to your questions? | Yes | No |
| 4. Have you had an opportunity to discuss this study? | Yes | No |
| 5. Have you received enough information about this study? | Yes | No |
| 6. Do you understand the implications of your involvement in this study? | Yes | No |
| 7. Do you understand that you are free to withdraw from this study?
at any time
without having to give any a reason for withdrawing, and
without affecting your future health care. | Yes | No |
| 8. Do you agree to voluntarily participate in this study | Yes | No |
| 9. Who have you spoken to? _____ | | |

Please ensure that the researcher completes each section with you

If you have answered NO to any of the above, please obtain the necessary information before signing

Please Print in block letters:

Patient /Subject Name: _____ Signature: _____

Parent/ Guardian: _____ Signature: _____

Witness Name: _____ Signature: _____

Research Student Name: _____ Signature: _____

APPENDIX D

Code of Conduct:

This form needs to be completed by every member of the Focus Group prior to the commencement of the focus group meeting.

As a member of this committee I agree to abide by the following conditions:

1. All information contained in the research documents and any information discussed during the focus group meeting will be kept private and confidential. This is especially binding to any information that may identify any of the participants in the research process.
2. None of the information shall be communicated to any other individual or organisation outside of this specific focus group as to the decisions of this focus group.
3. The information from this focus group will be made public in terms of a journal publication, which will in no way identify any participants of this research.

	Member Represents	Member's name	Signature	Contact details
1				
2				
3				
4				
5				
6				
7				

8				
9				
10				
11				
12				

APPENDIX E

Thank you for completing the following questionnaire. Please note that no names are used and that your identity is kept strictly confidential.

Section A

Demographic Questions related to you the Participant:

1. Are you: Male ☐ Female ☐
2. Which age bracket are you in?
- | | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <25 | 26-35 | 36-45 | 46-55 | 56-65 | >65 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
3. What is your home language?
- | | | | | | | | |
|---------|--------------------------|-----------|--------------------------|---------|--------------------------|--------|--------------------------|
| English | <input type="checkbox"/> | Afrikaans | <input type="checkbox"/> | Zulu | <input type="checkbox"/> | Tswana | <input type="checkbox"/> |
| Xhosa | <input type="checkbox"/> | Venda | <input type="checkbox"/> | Ndebele | <input type="checkbox"/> | | |
- Other (please specify).
4. To which group do you belong?
- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Black | Chinese | Coloured | Indian | White |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
- Other (please specify)
5. What qualifications do you have?
- | | | | |
|----------------------------|----------------------|---------------------------|--------------------------|
| Standard (please specify). | Matric | Diploma (please specify). | Degree (please Specify). |
| <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
- Other (please specify)

Section B

Demographic Questions Related to your Pharmacy:

6. Which type of a pharmacy do you work in?
- | | | | |
|--------------------------|---------------------------------|-----------------------------------|--------------------------|
| Private | Part of a group
2 pharmacies | Part of a group
3-5 pharmacies | Part of a chain. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
7. Where is the shop situated?
- | | | |
|---|--|--|
| On its own, no other
associated shops. | On a street, associated
with a shopping area. | Inside a shopping
complex, less than
40 other businesses |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Inside a shopping
complex, more than
40 other businesses. | | |
| <input type="checkbox"/> | | |
8. Does the pharmacy you work in stock any homoeopathic medicines?
- No ☐ Yes ☐
- Please indicate the homoeopathic ranges stocked.
- Homoeoforce 6c Remedies ☐
- Homoeoforce 30c Remedies ☐
- Weleda ☐
- Natura ☐
- Any others. (please specify)

Section C

Demographic Questions Related to your position in the Pharmacy.

10. Do you hold a full time or part time position?

Full time

☐

Part time

☐

11. How long have you worked in pharmacies?

<1year

☐

1-2

☐

2-5

☐

6-10

☐

over 10years

☐

12. Please indicate any of the following that apply to your job description.

Stocktaking.

☐

Shelf filling.

☐

Marking stock.

☐

Placing orders.

☐

Cashier work.

☐

Handling money.

☐

Supervision of other staff.

☐

Staff Training.

☐

Customer sales.

☐

Advising customers

☐

Taking Blood Pressures.

☐

Cleaning the shop.

☐

Doing Glucometer readings

☐

Interacting with the pharmacist.

☐

Other (please specify)

13. Have you been given any training while working in a pharmacy in areas other than homoeopathy?

No ☐

Yes ☐

Please indicate below the type of training you have received.

Product seminars

☐

In house training by staff

☐

In house training by product representatives

☐

Institutionally registered courses.

(Please specify).

Others (Please specify)

14. Are you presently registered at any learning institution?

Yes ☐ No ☐

If yes please specify

Institution/s and course/s

15. Have you been given any training relating to homoeopathy and homoeopathic medicines while working in a pharmacy?

No ☐ Yes ☐

Please indicate the type of training you have attended below.

Product seminars ☐

In house training by staff ☐

In house training by product representatives ☐

Institutionally registered courses

(Please specify)

Other (Please specify)

Section D

Questions Related to your understanding of Homoeopathy.

16. How would you describe your knowledge of Homoeopathy?
- ☐ never heard of it
 - ☐ heard of it only
 - ☐ know something about it
 - ☐ quite familiar with it
17. Do you advise customers about homoeopathic medicines?
- Yes ☐ No ☐
18. Do homoeopathic medicines have any side effects?
- No ☐ Yes ☐ Don't know ☐
19. Have you ever heard Dr Samuel Hahnemann?
- ☐ never heard of him
 - ☐ heard of him, don't know anything about him.
 - ☐ know something about Dr Hahnemann
 - ☐ quite familiar with Dr Hahnemann
20. Which of the options below closest matches your understanding of the term Homoeopathic Aggravation?
- ☐ never heard of it
 - ☐ heard of the term, don't know anything about it.
 - ☐ increase in intensity of symptoms already present.
 - ☐ Increased mental irritability caused by the medicine.
 - ☐ A sign that the condition is worsening.

21. Which of the options below closest matches your understanding of the term sucussion in relation to homoeopathy?
- ☐ never heard of it
 - ☐ heard of the term, don't know anything about it.
 - ☐ increase in intensity of symptoms.
 - ☐ A method of shaking the medicine between dilutions.
 - ☐ A form of homoeopathic treatment for head injury.
22. Where was homeopathy founded?
- ☐ Don't know
 - ☐ In the East and is based on Eastern Philosophy.
 - ☐ In the USA by Dr Kent.
 - ☐ In Europe by a medical Doctor.
 - ☐ In India by a Buddhist Monk.
23. Which of the options below closest matches your understanding of the term Law of Similars?
- ☐ never heard of it
 - ☐ heard of the term, don't know anything about it.
 - ☐ many people have similar symptoms
 - ☐ Like cures like.
 - ☐ Because there are so many medicines there are many similarities.
24. Which of the options below closest matches your understanding of the term 'proving' in relation to homoeopathy?
- ☐ never heard of it
 - ☐ heard of the term, don't know anything about it.

- ☐ Substances given to a healthy individual to find out what symptoms are associated with that particular substance.
- ☐ A placebo based clinical trial, which scientifically proves the effectiveness of homoeopathy.
- ☐ A person receiving a homoeopathic medicine who has a dramatic improvement proves the effectiveness that particular medicine.

25. Which of the options below closest matches your understanding of the term 'simplex' in relation to homoeopathy?

- ☐ Never heard of it
- ☐ heard of the term, don't know anything about it.
- ☐ The simplicity of the medicines and their application
- ☐ an uncomplicated case.
- ☐ a single remedy.

26. Which of the options below closest matches your understanding of the term 'complex' in relation to homoeopathy?

- ☐ Never heard of it
- ☐ heard of the term, don't know anything about it.
- ☐ The complexity of the medicines and their application.
- ☐ A complicated case.
- ☐ More than one homoeopathic remedy that has been combined into one remedy.

27. Which of the options below closest matches your understanding of the 'C' in relation to homoeopathic medicines?

- ☐ Never heard of it.
- ☐ Heard of the term, don't know anything about it.
- ☐ A category of homoeopathic medicines.
- ☐ The medicine has been diluted in the ratio of 1:99.
- ☐ Carbon

28. Which of the options below closest matches your understanding of the 'D' in relation to homoeopathic medicines?

- ☐ Never heard of it.
- ☐ Heard of the term, don't know anything about it.
- ☐ A category of homoeopathic medicines.
- ☐ The medicine has been diluted in the ratio 1:9.
- ☐ Delinium

Section E

Questions relating to your attitude towards Homoeopathy.

29. Would you ever go and see a Homoeopath as a patient?
Yes ☐ No ☐
30. Have you ever been to see a Homoeopath as a patient?
No ☐ Yes ☐
31. If you answered yes in the question above, would you go back and see a homoeopath again?
Yes ☐ No ☐
32. Would you ever use homoeopathic medicine?
No ☐ Yes ☐
33. Have you ever used homoeopathic medication?
No ☐ Yes ☐
34. If you answered yes in the above question, would you use homoeopathic medicine again?
No ☐ Yes ☐
35. Has anyone you know ever been to see a Homoeopath as a patient?
No ☐ Yes ☐ don't know ☐
36. Has anyone you know ever used homoeopathic medicines?
No ☐ Yes ☐ don't know ☐

37. Do you think homoeopathy and homoeopathic medicines work?
No ☐ Yes ☐ Don't know ☐
38. Is homoeopathy is a safe complimentary medicine?
No ☐ Yes ☐ Don't know ☐
39. Does homoeopathy only work because people believe it does? ☐
No ☐ Yes ☐ Don't know ☐
40. Does homoeopathy go against your religious beliefs?
No ☐ Yes ☐ Not applicable. ☐

APPENDIX F

LETTER OF INFORMATION PRE-TEST QUESTIONNAIRE EVALUATION

Title of the research:

A prospective, epidemiological pilot study to investigate the level of knowledge of homeopathy and its contextualization in pharmacy front shop assistants in the Kwa Zulu Natal area.

NAME OF RESEARCH STUDENT:	Lecia de Villiers
CONTACT NUMBER	0846061075
NAME OF SUPERVISOR	Dr C. Korporaal
CONTACT NUMBERS	0312042611
NAME OF CO-SUPERVISOR	Dr R. Steele
CONTACT NUMBERS	031 3326060
NAME OF INSTITUTION:	Durban Institute of Technology

Dear Participant,

Thank you for your cooperation in taking part in this evaluation.

The reason for this evaluation is the assessment of the operational parameters of the attached questionnaire that will be utilized to gather the information required for the above named research dissertation. Please note that your identity and the information supplied are to be treated as confidential during and after the research process.

Please feel free to ask any questions that you may have about your role in this evaluation, so that you clearly understand what is entailed in the research and what is expected of you. Once you are completely satisfied please complete the informed consent form and then the questionnaire.

Please complete the questionnaire, taking note of the following:

- There is to be no collaboration with anyone else in the answering any of the questions.
- The time taken to complete the questionnaire.
- Any thing that was ambiguous or difficult to understand.
- Unclear instructions
- Layout
- Anything that made you feel uncomfortable or may have offended you.

Once the questionnaire has been completed a discussion regarding your feedback on the above will take place at a convenient time and place for both of us.

Thank you once again.
Yours sincerely,

L. de Villiers

(Researcher)

Dr. R. Steele

(Supervisor)

Dr. C. Korporaal

(Supervisor)

APPENDIX G

SECTION A

Please place a cross to indicate your answer in questions where a box is provided, otherwise give written answer in the space provided.

1. Sex Male ☐ Female ☐

2. Which age bracket do you fall into?

Under 25	26-35	36-45	46-55	56-65	over 65
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. What is your home language?

English	Afrikaans	Xhosa	Venda	Zulu	Ndebele	Tswana
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Other (please specify). _____

4. Which group do you belong to?

Black	Coloured	Indian	White	Chinese
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Other (please specify) _____

5. Please indicate qualifications achieved?

Standard/Grade (please specify)

Matric

Degree (please specify)

Diploma (please specify)

Other (please specify)

Section B.

1. Please indicate your position.

Owner	Manager	Full time	Part time
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

2. How long have you worked in pharmacies?

1year or less	1-3 years	3 - 5 years	5 - 10 years	more than 10 years
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

3. Have you been given any training relating to homeopathy and homeopathic medicines while working in a pharmacy ?

Yes	<input type="text"/>	No	<input type="text"/>
-----	----------------------	----	----------------------

4. If yes in no 4.please indicate the type of training you have attended below.

Product seminars	<input type="text"/>
Training by staff	<input type="text"/>
Training by product representatives	<input type="text"/>
Institutionally registered courses (Please specify)	<input type="text"/>
Other (Please specify)	<input type="text"/>

5. Are you presently registered at any learning institution?

Yes	<input type="text"/>	No	<input type="text"/>
-----	----------------------	----	----------------------

If yes please
specify Institution/s
and course/s

If yes please specify
Institution/s and course/s

6. Have you been given any training while working in a pharmacy in areas other than homeopathy?

Yes ☐ No ☐

7. If yes in 7 please indicate below the type of training you have received.

Product seminars

☐

Training by staff

☐

Training by product
representatives

☐

Institutionally registered
courses (Please specify)

☐

Other (Please specify)

☐

Section C.

1. Does the pharmacy you work in stock any homeopathic medicines?

Yes ☐ No ☐

2. Is there a qualified or student homeopath available in your shop?

Yes ☐ No ☐

3. Have you ever consulted a homeopath as a patient?

Yes ☐ No ☐

SECTION D.

Please place a cross in the box containing your answer.

	QUESTIONS	ANSWERS				
		A	B	C	D	E
1	Describe your knowledge of Homeopathy?	never heard of it.	heard of it only.	know something about it.	quite familiar with it.	
2	Have you heard of Dr Samuel Hahnemann?	never heard of him.	heard of him, don't know anything about him.	know something about Dr Hahnemann.	quite familiar with Dr Hahnemann.	
3	Which option closest matches your understanding of the term Homeopathic Aggravation?	never heard of it.	heard of the term, don't know anything about it.	a sign that the condition is worsening.	increased mental irritability caused by the medicine.	increase in intensity of symptoms already present.
4	Which option closest matches your understanding of the term Succussion in relation to homeopathy?	never heard of it.	heard of the term, don't know anything about it.	a method shaking the medicine between dilutions.	a form of homeopathic treatment for head injury.	increase in intensity of symptoms.
5	Where was homeopathy founded?	don't know.	in the East and is based on Eastern Philosophy.	in the USA by Dr Kent.	in Europe by a medical Doctor.	in India by a Buddhist Monk.
6	Which option closest matches your understanding of the term Law of Similars?	never heard of it.	heard of the term, don't know anything about it.	many people have similar symptoms.	because there are so many medicines there are many similarities.	like cures like.
7	Which option closest matches your understanding of the term 'proving' in relation to homeopathy?	never heard of it.	heard of the term, don't know anything about it.	substances given to a healthy individuals to find out what symptoms are associated with those particular substances.	a person receiving a homeopathic medicine who has a dramatic improvement proves the effectiveness that particular medicine.	a placebo based clinical trial that scientifically proves the effectiveness of homeopathy.
8	Which option closest matches your understanding of the term 'simplex' in relation to homeopathy?	never heard of it.	heard of the term, don't know anything about it.	the simplicity of the medicines and their application	a single remedy.	an uncomplicated case.
9	Which option closest matches your understanding of the term 'complex' in relation to homeopathy?	never heard of it.	heard of the term, don't know anything about it.	the complexity of the medicines and their application.	a complicated case.	more than one homeopathic remedy that has been combined into one medicine.
10	Which option closest matches your understanding of the 'c' in relation to homeopathic medicines?	never heard of it.	heard of the term, don't know anything about it.	a category of homeopathic medicines.	the medicine has been diluted in the ratio of 1:99.	Carbon
11	Which option closest matches your understanding of the 'd' in relation to homeopathic medicines?	never heard of it.	heard of the term, don't know anything about it.	Delinium	a category of homeopathic medicines.	the medicine has been diluted in the ratio 1:9.
12	When taking homeopathic medicines one should?	don't know	never take homeopathic medicine on a empty stomach.	not have any food or drink 10 minutes before or after taking the medication.	there is no specific way to take homeopathic medicines.	do not take homeopathic medicines before 6am and after 8pm.

Section E

True or false, please indicate answers in box provided.

		TRUE	FALSE
1	Chamomile tea is homeopathic.		
2	Vitamin B12 is homeopathic.		
3	Homeopathic medicines can be added to foods or juices.		
4	Certain homeopathic preparations are available in suppository form		
5	Toothpaste will not interfere with the action of homeopathic medicines.		
6	Homeopathic medicines are absorbed through the mucous membranes of the body.		
7	Homeopathic medicines work because of the placebo effect.		
8	Homeopathy is unscientific because there are no clinical trials.		
9	A Homeopath is given the title of Doctor on completion of the Masters Degree in Homeopathy.		
10	Poisonous substances are never used in the preparation of homeopathic medicines.		
11	Homeopathic tablets are never made in a milk sugar base.		
12	Storing of homeopathic medicines in direct sunlight is acceptable.		
13	Homeopathic treatment can cause symptoms to get worse before they get better.		
14	Succussion is a method in Homeopathy used to treat concussion.		
15	The term 'complex' in relation to homeopathic medicines refers to a condition which is untreatable by means of Homeopathy		

APPENDIX H

LETTER OF INFORMATION

Title of the research:

A prospective, epidemiological pilot study to investigate the level of knowledge of homeopathy and its contextualization in pharmacy front shop assistants in the Kwa Zulu Natal area.

NAME OF RESEARCH STUDENT:	Lecia De Villiers
CONTACT NUMBER:	0846061075
NAME OF SUPERVISOR:	Dr C. Korporaal
CONTACT NUMBERS:	0312042611
NAME OF CO-SUPERVISOR:	Dr R. Steele
CONTACT NUMBERS:	031 332 6060 or 0829286208
NAME OF INSTITUTION:	Durban Institute of Technology

Dear Sir/Madam,

Thank you for taking part in the above named research.

Purpose of this study: The purpose of this study is to investigate the level of understanding of homeopathy and factors affecting this understanding amongst pharmacy front shop assistants in the Kwa Zulu Natal area.

Procedures: A questionnaire has been developed that aims to assess an understanding of homeopathy. The questionnaire takes a multiple choice format and can be completed in approximately 15 to 25 minutes. For the purpose of this research, you may not include yourself as a participant

- Please could you select two members of your staff to complete the questionnaire? The participants selected will need to be:
 - (1.) fluent in written and spoken English
 - (2.) have direct contact with the public, giving advice and selling health products.
 - (3.) not be student or qualified homeopaths.
- Please note the questionnaire needs to be completed without the presence of the researcher, and without collaboration on behalf of the participant.
- Please arrange times with the researcher that are convenient for the questionnaire to be delivered and collected.
- Please could you supply proof that the pharmacy concerned is a legitimate business enterprise, by providing a vat registration number or such like?

- Once you have read this letter, are completely satisfied that you understand what is expected of you and the participants and are happy to take part in the research, please complete the signed consent form attached.
- Please retain this letter of information for your records.
- The letter of consent will be retained by the researcher as proof of agreed participation in the research.

Confidentiality: Please note that your identity and that of the pharmacy and the participants selected are treated as confidential. The results from this study are used for research purposes only. The only people, who have access to the completed questionnaires during and after the research process, are those who are directly involved, my supervisors Dr Korporaal, Dr Steele and I.

The candidates are not asked for their name or that of the pharmacy on the questionnaires itself.

Problems or queries: Please feel free to ask any questions that you may have about your role in this study, so that you clearly understand what is entailed in the research and what is expected of you.

Should you have any questions that you would prefer answered by an independent individual, please free to contact my supervisor Dr Korporaal, or co-supervisor Dr Steele, their contact details can be found above. Should you have any queries or complaints regarding anything to do with the research, you may contact a representative from the Health Sciences Research and Ethics Committee Durban Institute of Technology– Mr Vikesh Singh on 031 2042701

Thank you once again.
Yours sincerely,

L. de Villiers

Dr. R. Steele

Dr. C. Korporaal

(Researcher)

(Supervisor)

(Supervisor)

APPENDIX I

LETTER OF INFORMATION

Title of the research: A prospective, epidemiological pilot study to investigate the level of knowledge of homeopathy and its contextualization in pharmacy front shop assistants in the Kwa Zulu Natal area.

NAME OF RESEARCH STUDENT:	Lecia De Villiers
CONTACT NUMBER:	0846061075
NAME OF SUPERVISOR:	Dr C. Korporaal
CONTACT NUMBERS:	0312042611
NAME OF CO-SUPERVISOR:	Dr R. Steele
CONTACT NUMBERS:	031 332 6060 or 0829286208
NAME OF INSTITUTION:	Durban Institute of Technology

Dear Sir/Madam,

Thank you for taking part in the above named research.

Purpose of this study: The purpose of this study is to investigate the level of understanding of homeopathy and factors affecting this understanding amongst pharmacies in KZN.

Procedures: Please complete the attached questionnaire, taking note of the following:

- The researcher will not be present while the questionnaire is being completed.
- There is to be **no collaboration** with anyone else in the answering of any of the questions.
- **Please answer every question.**
- This letter is to be retained by yourself for your information; the signed consent form will be retained by the researcher as proof of participation.

Confidentiality: Please note that your identity and that of the pharmacy are treated as confidential. The results from this study are used for research purposes only. The only people, who have access to the information supplied during and after the research process, are those who are directly involved my supervisors Dr Korporaal, Dr Steele and I.

Neither your name nor that of the pharmacy is to be recorded on the questionnaire.

Problems or queries: Please feel free to ask any questions that you may have about your role in this evaluation, so that you clearly understand what is entailed in the research and what is expected of you. Once you are completely satisfied please complete the informed consent form.

Should you have any questions that you would prefer answered by an independent individual, please free to contact my supervisor Dr Korporaal, or co-supervisor Dr Steele, their contact details can be found above. Should you have any queries or

complaints regarding anything to do with the research, you may contact a representative from the Health Sciences Research and Ethics Committee Durban Institute of Technology– Mr Vikesh Singh on 031 2042701

Thank you once again.
Yours sincerely,

L. de Villiers
(Researcher)

Dr. R. Steele
(Supervisor)

Dr. C. Korpmaal
(Supervisor)

SECTION A

Please place a cross in the box (where appropriate), otherwise give a written answer in the space provided.

1. Sex Male ☐ Female ☐

2. Which age bracket do you fall into?

Under 25	25-35	35-45	45-55	55-65	over 65
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. What is your home language?

English	Afrikaans	Xhosa	Venda	Zulu	Ndebele	Tswana
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Other (please specify):

4. Which group do you belong to?

Black	Coloured	Indian	White	Chinese
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Other (please specify):

5. Please indicate your highest qualification achieved?

Standard/Grade (please specify)	<input type="checkbox"/>
Metric	<input type="checkbox"/>
Degree (please specify)	<input type="checkbox"/>
Diploma (please specify)	<input type="checkbox"/>
Other (please specify)	<input type="checkbox"/>

Section B.

1. Please indicate your position.

Owner	Manager	Full time	Part time
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. How long have you worked in pharmacies?

1 year or less	1-3 years	3-5 years	5-10 years	more than 10 years
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. Have you been given any training relating to homoeopathy whilst employed in the pharmacy?

Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
-----	--------------------------	----	--------------------------

4. If yes in number 3. above please indicate by placing an 'X' in the appropriate boxes the subjects discussed in this training.

Storage of Homoeopathic medicines	<input type="checkbox"/>
Administration of Homoeopathic medicines	<input type="checkbox"/>
Principles of Homoeopathy	<input type="checkbox"/>
Specific information regarding Homoeopathic medicines E.g. when and how to use	<input type="checkbox"/>

5. If yes in number 3. above please indicate the type of training you have attended below.

Product seminars	<input type="checkbox"/>
In house training by staff	<input type="checkbox"/>
In house training by product representatives	<input type="checkbox"/>
Institutionally registered courses (Please specify)	<input type="checkbox"/>
Other (Please specify)	<input type="checkbox"/>

6. Have you been given any training while working in a pharmacy on subjects other than homeopathy?

Yes ☐ No ☐

7. If yes in number 6, above please indicate below the type of training you have received.

Product seminars	
In house training by staff	
In house training by product representatives	
Medicinally registered courses (Please specify)	
Other (Please specify)	

Section C.

1. Does the pharmacy you work in stock any homeopathic medicines for sale over the counter?

Yes ☐ No ☐ Don't know ☐

2. Does the pharmacy you work in stock Homeopathic Simples?

Yes ☐ No ☐ Don't know ☐

3. If yes to question 2 above, please indicate which potencies are stocked?

I don't know ☐

60C ☐ 120C ☐ 300C ☐ 2000C ☐ 5M ☐

Please list other potencies stocked (a maximum of 5 is sufficient)

4. Does the pharmacy you work in stock Homeopathic Complexes?

Yes ☐ No ☐ Don't know ☐

5. Please list the homeopathic ranges stocked by the pharmacy you work in, (a maximum of 5 is sufficient).

6. Do you have a qualified or student homeopath working in your pharmacy?

Yes ☐ No ☐

7. Does the pharmacy you work in dispense homeopathic medicines per script?

Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	I don't know	<input type="checkbox"/>
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8. If yes in number 7, above please indicate who dispenses the medicines to the public.

Self ☐

Other ☐

If other please specify their qualification

Section D.

1. How do you go about selecting a homeopathic remedy for your customer?

Place an 'X' in the appropriate boxes.

I never select homeopathic remedies as a recommendation for my customers.	
I supply the customer with the specific homeopathic remedy which they have requested.	
I ask the customer questions relating to their ailment and try to find the most relevant homeopathic remedy.	
If the customer is wanting a homeopathic remedy, I generally recommend a different form of medication.	
I use the information provided on the labels of the remedies as a guideline for remedy recommendation.	

If you use any other means of selecting homeopathic remedies for your customers, please specify below.

2. Please indicate by placing crosses 'X' into the appropriate boxes below, the ailments for which you have recommended homeopathic remedies.

Apparent part or location	Cold	Runny nose	Stomach pain
Acne	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Allergies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Arthritis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Asthma	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Back pain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cold	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Common cold	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cuts and abrasions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Diarrhoea	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Flu	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Headaches	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Heartburn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hives	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Indigestion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Joint pain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Menstrual problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nausea and vomiting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (please specify)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If others please specify:

3. Do you refer customers to any of the following?

Acupuncturist	<input type="checkbox"/>
Aromatherapist	<input type="checkbox"/>
Chiropractor	<input type="checkbox"/>
Herbalist	<input type="checkbox"/>
Homeopath	<input type="checkbox"/>
Hypnotherapist	<input type="checkbox"/>
General Practitioner (Doctor)	<input type="checkbox"/>
Osteopath	<input type="checkbox"/>
Reflexologist	<input type="checkbox"/>
Spinal practitioner	<input type="checkbox"/>
Others (please specify)	<input type="checkbox"/>

SECTION E

1. Have you ever consulted a homoeopath as a patient?

Yes ☐ No ☐

2. Have you ever taken any homoeopathic medicines?

Yes ☐ No ☐

3. Do you think homoeopathic medicines are effective?

Yes ☐ No ☐

4. Do you think you need more comprehensive training in homoeopathy and homoeopathic medicines?

Yes ☐ No ☐

Section F

1. One should not touch most homoeopathic medicines with one's fingers because?

Place an 'X' in the appropriate boxes.

It is antiseptic.	
The substances transferred from your fingers can interfere with the action of the medicines.	
The pills/granules are generally coated with medicine.	
You should be wearing latex gloves.	
It's alright to use your fingers if you have washed with disinfectant before and after.	
I don't know	

2. How should homoeopathic medicines be taken orally?

Place an 'X' in the appropriate boxes.

Using sterilized metal utensils	
Away from food	
Using distilled water.	
Teeth need to be brushed just before taking the medicine	
Swallowed immediately	
Dissolved in the mouth	
I don't know	

3. How should homoeopathic medicines be stored?

Place an 'X' in the appropriate boxes.

Away from direct sunlight	
In a warm dark place	
Away from electrical outlet points	
Away from cellular telephones	
In moist conditions	
In the refrigerator	
I don't know	

4. Why do you think homoeopathic medicines are effective?

Place an 'X' in the appropriate boxes.

They contain herbal ingredients	
Because of the principle of 'like cures like'	
People have faith in the medicines	
A very small dose is used	
They are vigorously shaken in preparation	
Other reasons	
They are ineffective	

SECTION G.

Please place a cross (X) in the box containing your answer. Only ONE answer per question.

QUESTIONS	ANSWERS				
	A	B	C	D	E
1 Describe your knowledge of Homeopathy?	never heard of it	heard of it only	poor.	satisfactory.	excellent
2 Which of the following statements indicates your understanding of the term 'Potentisation' in Homeopathy?	never heard of it.	heard of the term but don't know anything about it.	a specific method used by homeopaths to study a patient's case.	A specific method used by homeopaths to prepare homeopathic medicines.	a specific method used by homeopaths to treat male patients.
3 Which of the following statements indicate your understanding of the term 'Aggravation'?	never heard of it.	heard of the term, don't know anything about it.	a sign that the condition is worsening	increased mental anxiety caused by the medicine.	increase in intensity of symptoms already present
4 Which of the following statements indicate your understanding of the term 'Suppression' in relation to homeopathy?	never heard of it.	heard of the term, don't know anything about it.	a method shaking the medicines between dilutions	a form of homeopathic treatment for head injury	increase in intensity of symptoms.
5 Where was homeopathy founded?	don't know.	in the East and is based on Eastern Philosophy.	in the USA by Dr Kent.	in Germany by Dr Samuel Hahnemann.	in India by a Buddhist monk
6 Which of the following statements indicates your understanding of the term 'Law of Similitude'?	never heard of it.	heard of the term, don't know anything about it.	many people have similar symptoms.	because there are so many medicines there are many similarities.	like cures like.
7 Which of the following statements indicates your understanding of the term 'proving' in relation to homeopathy?	never heard of it	heard of the term, don't know anything about it.	substances given to healthy individuals to find out what symptoms are curable by that particular substance	a person receiving a homeopathic medicine who has a dramatic improvement, proves the effectiveness of that particular medicine	a placebo based clinical trial that scientifically proves the effectiveness of homeopathy.
8 Which of the following statements indicates your understanding of the term 'simplex' in relation to homeopathy?	never heard of it.	heard of the term, don't know anything about it.	the simplicity of the medicines and their application	a single remedy.	an uncomplicated case.
9 Which of the following statements indicates your understanding of the term 'complex' in relation to homeopathy?	never heard of it	heard of the term, don't know anything about it.	the complexity of the medicines and their application.	a complicated case.	more than one homeopathic remedy that has been combined into one medicine
10 Which of the following statements indicate your understanding of the 'C' in relation to homeopathic medicines? e.g. 30CH	never heard of it.	heard of the term, don't know anything about it.	a category of homeopathic medicines.	the medicine has been diluted in the ratio of 1:100	Cetion
11 Which of the following statements indicate your understanding of the 'D' in relation to homeopathic medicines? e.g. 6D	never heard of it.	heard of the term, don't know anything about it.	The substance 'Diluent' which is used as a preservative in homeopathic medicines	a category of homeopathic medicines	the medicine has been diluted in the ratio 1:9
12 In treating patients homeopaths consider the following types of symptoms	don't know	physical	mental	emotional	physical, mental and emotional

Section H

True or false, please indicate answers by placing an 'X' in the appropriate box.

		TRUE	FALSE	DON'T KNOW
1	Herbal teas are homeopathic medicines.			
2	Vitamin B12 is a homeopathic medicine.			
3	Homeopathic medicines can be added to foods or juices.			
4	Certain homeopathic preparations are available in suppository form			
5	A plastic spoon can be used to dispense homeopathic medicines.			
6	Homeopathic medicines are absorbed through the mucous membranes of the body.			
7	Homeopathic medicines work because of the placebo effect.			
8	Homeopathy is unscientific because there are no clinical trials.			
9	A Homeopath is given the title of Doctor on completion of the Masters Degree in Homeopathy.			
10	Poisonous substances can be used to make homeopathic medicines.			
11	Homeopathic tablets are never made in a milk sugar base.			
12	Homeopathic treatment can cause symptoms to get worse before they get better.			
13	Succession is a method in Homeopathy used to treat concussion.			
14	Homeopathic medicines are always diluted and shaken in a specific manner when being manufactured.			
15	The term 'complex' in relation to homeopathic medicines refers to a condition which is untreatable by means of Homeopathy			
16	Homeopathic medicines work on the way you are feeling mentally and emotionally as well on your physical symptoms.			

APPENDIX M

Focus Group

11th November 2003

Summary of suggestions made by those present

There were ten participants in the focus group.

- Two pharmacy front shop assistants.
- Two health shop assistants
- One pharmacist.
- One statistician
- One homeopath
- Two researchers (Lecia de Villiers and Janet Anne Tatalias)

A supervisor / scribe and transcript recorder.

The researchers selected the above mentioned participants because of their involvement and expertise in the field that the research was to be conducted. Their comments and suggestions helped the researchers to hone the questionnaire accordingly.

The participants were asked to read the following documentation and to sign the informed consent form, confidentiality statement and the code of conduct forms and to return those to the respective researchers.

- Focus Group information letter. (Appendix A)
- Focus Group confidentiality statement. (Appendix B)
- Informed consent form. (Appendix C)
- Focus Group Code of Conduct form. (Appendix D)
- Focus Group proposed questionnaire (Appendix E)

The questions were then read out loud to the participants, with each respective researcher asking their questions separately and independently. After each question, the participants commented on validity, comprehension, statistical validity, format and also made suggestions for improvement. A summary of the discussion and comments follows.

Section A. Demographic questions relating to the participant.

Question one. (Please indicate your sex.)

All participants agreed that the question was relevant.

Question 2. (Which age bracket are you in?)

Statistician: - The last age brackets over-lapped i.e. were 56 to 65, and 65 and over respectively. It was suggested by the statistician that the last age group be listed as 66 and over.

All participants agreed.

Question 3. (What is your home language?)

Statistician: - Only give options for English and Afrikaans and then other, and specify other. If there are enough others specified, then another group can be formed.

All participants agreed.

Question 4. (To which group do you belong?)

Statistician: - Asking people about their race may prevent them from answering the question or prevent them from participating in the research.

Pharmacist: - agreed.

Researchers: - Commented that the question was inserted to ascertain if racial factors influenced the participants understanding of homeopathy.

The other participants agreed question should be there.

Statistician: - Commented that there was no objection to the question; however he queried the relevance of the question with regard to the aim of the research. He also mentioned that this factor should be considered when deciding to include or exclude the question and any following questions.

Question 5. (What qualification do you have?)

Statistician: -Recommended that the question be rephrased to read 'what is your highest qualification'. This will prevent all the choices from being checked resulting in a statistically weak question.

All participants agreed.

Section B. Demographic questions related to your pharmacy.

Question 6. (What type of Pharmacy do you work in?)

Pharmacies

Pharmacist: - All pharmacies are the same; the distinction should be where the pharmacies are located and whether they are retail or in a hospital, or belong to specific groups ie Medicine chest or Medicross.

Statistician: - Agreed and added that if there were a wide range of different types of pharmacies and that the respective researcher should investigate this further.

All members of the group agreed.

Health shops.

Homeopath: - There are different types of health shops for e.g. there are gym supply shops; however, the distinction is something that needs to be considered, when defining which health shops would participate in the research. In addition perhaps the shops should be referred to as health food stores as opposed to health shops through out the document.

Pharmacist: - Did not agree. Health shops are health shops, whether they supply predominately gym supplements or health foods.

Question 7. (Where is the shop situated?)

Pharmacist: -The question is relevant if you are comparing a pharmacy in a rural setting to one in an urban setting, and whether that has any bearing on the understanding of homeopathy. The requirements of the study need to be considered before finalizing this question.

Statistician: - Agreed. Question is relevant because you want to know where the shop is located. In addition, an indication of the type of customer can be gained by knowing the shop location. Again it depends on the relevance to your study.

Pharmacist: - Agreed that where the shop was located did have relevance to the study.

Statistician: - The question needs to be rephrased to be more relevant. I.e. where is the shop located not whether it is in complex or not.

The other participants agreed.

Question 8. (Does the shop you work in stock any homeopathic medicines?)

Statistician: - Pointed to the need to include a question about whether there are any homeopathic medicines being bought on script or not. He also pointed out that there was no distinction between complex medicines and simplex medicines.

The other participants agreed.

Section C. Demographic Questions Related to position in the shop.

Question 10. (Do you hold a full time or part time position?)

All agreed the question was fine for the pharmacy front shop assistants.

Within the health shops there owners and managers could also participate.

Statistician: - Suggested that the question be re-worded and re-formatted to ask for category of employee, and as a sub question to ask about fulltime or part time position.

Question 11. (How long have you worked in the pharmacy/ health shop?)

All participants agreed that it was a relevant question.

Question 12. (Please indicate if any of the following apply to your job description.)

Statistician; - The question is too complicated and was unsure about relevance. He also commented that the questionnaire was lengthy and asked questions that may not be valid to the research. He suggested that a pilot questionnaire be performed prior to the finalized questionnaire in order to gain insight into how the participants would react to the content. This could be ascertained by checking whether all the questions are completed, which questions were not answered, and what specific information would be gained from each of the questions. This would help to clarify these issues.

Pharmacist: -What does 'interacting with the pharmacist mean'. The interaction with the pharmacist will depend on many factors including the size of the pharmacy and the educational level of the participant. There are a

number of different types of positions within the pharmacy, apart from pharmacist. Included in this are front shop assistants and pharmacist assistants. The pharmacist assistants assist the pharmacist, where as the front shop assistants do not.

All participants agreed that the question needed to be carefully assessed and reworded for relevance.

Question 13. (Have you been given any training while working in a Pharmacy/health shops in areas other than homeopathy?)

All participants agreed that the question was relevant.

Question 14. (Are you presently registered at any learning institution?)

All participants agreed that the question was relevant.

Question 15. (Have you been given any training related to homeopathy and homeopathic medicines while working in a health shop/pharmacy?)

Statistician: - This question should be asked before question 13.

All participants agreed.

Section D

Questions related to your understanding of homeopathy.

Question 16. (How would you describe your knowledge of homeopathy?)

All participants agreed that the question was relevant.

Question 17. (Do you advise customers about homeopathic medicines?)

All participants agreed that the question was relevant.

Question 18. (Do homeopathic medicines have any side effects?)

Question was included in error.

Question 19. (Have you ever heard of Dr Samuel Hahnemann?)

Statistician and Pharmacist both questioned the relevance of this question.

It was agreed that the question was relevant because in relation to other similar questions it would be used to assess different levels of knowledge.

Question 20. (Which of the options below closest matches your understanding of the term 'homeopathic aggravation'?)

All participants agreed that the question was relevant.

It was noted that different questions had different numbers of answer options and it was agreed, that for continuity, that the number of options should be the same.

Question 21. (Which of the options below closest matches your understanding of the term 'succussion' in relation to homeopathy?)

All participants agreed that the question was relevant.

Question 22. (Where was homeopathy founded?)

All participants agreed that the question was relevant.

Question 23. (Which of the options below closest matches your understanding of the term 'Law of Similars'?)

All participants agreed that the question was relevant.

Statistician: - Commented that there was a pattern in the placement of the correct answers and that this should be altered.

Question 24. (Which of the options below closest matches your understanding of the term 'proving' in relation to homeopathy?)

All participants agreed that the question was relevant.

Statistician: - All the options for one question need to be on the same page.

Question 25. (Which of the options below closest matches your understanding of the term 'simplex' in relation to homeopathy?)

All participants agreed that the question was relevant.

Question 26. (Which of the options below closest matches your understanding of the term 'complex' in relation to homeopathy?)

All participants agreed that the question was relevant.

Question 27. (Which of the options below closest matches your understanding of the 'C' in relation to homeopathic medicines?)

All participants agreed that the question was relevant

Pharmacist: - Expressed concern that participants would guess the answers to the questions rather than selecting the 'don't know' option, because they would feel like they were in a test situation. It was suggested that the participants be told that it was not a test and to answer as truthfully as possible.

A discussion of how to ensure that the participants were not guessing occurred.

Statistician: - Suggested that the questions be filled in with the researcher present, and that by the participants answering the questions as opposed to ticking an option, that a more accurate assessment of understanding could be gained.

Scribe: - suggested asking the same questions in different ways to test the reliability of the answers.

It was decided by the respective researchers and all the participants present that the method recommended by the scribe was the preferable choice.

Question 28. (Which of the options below closest matches your understanding of the 'D' in relation to homeopathic medicines?)

All participants agreed that the question was relevant.

Question 29. (When taking homeopathic medicines one should:)

All participants agreed that the question was relevant

Section E.

Questions relating to your attitude towards homeopathy.

Question 32. (Would you go and see a Homeopath as a patient?)

All participants agreed that the question was relevant.

Question 33. (Have you ever been to see a Homeopath as a patient?)

All participants agreed that the question was relevant.

Question 34. (If you answered yes in the question above, would you go back and see a Homeopath again?)

All participants agreed that the question was relevant.

Question 35. (Would you ever use homeopathic medicine?)

Scribe: - This question needs to be placed earlier. If they had never used homeopathic medicines then they would most likely have not consulted a homeopath.

All participants agreed.

Question 36. (Have you ever used homeopathic medicine?)

All participants agreed that the question was relevant.

Question 37. (If you answered yes in the question above, would you use homeopathic medicine again?)

All participants agreed that the question was relevant.

Question 38. (Has anyone you know ever been to see a Homeopath as a patient?)

All participants agreed that the question was relevant.

Question 39. (Has anyone you know ever used homeopathic medicines?)

All participants agreed that the question was relevant.

Question 40. (Do you think homeopathic medicines work?)

All participants agreed that the question was relevant.

Question 41. (Is homeopathy a safe complimentary medicine?)

Pharmacist: - Why not ask if homeopathy is safe. Leave out the word complimentary, not relevant.

All participants agreed.

Question 42. (Does homeopathy only work because people believe it does?)

All participants agreed that the question was relevant.

Question 43. (Does homeopathy go against your religious beliefs?)

All participants agreed that the question was relevant.

Overall Comments.

Statistician: -

- Need to thank participants at the end of the questionnaire not at the beginning.
- In addition, there is a need to have an explanation at the beginning, explaining the need for the questionnaire and that it is not a test and so on.
- Also ask the personal questions at the end. People will mind less about giving their race and personal details.
- Do a pre-test questionnaire on a health shop and a pharmacy. Analyse the results of this exercise and see if it is relevant.

Everyone was thanked for their time and participation.