

**The Knowledge and Practice of Peri and Post Menopausal Women
attending Private General Practices in the Southern Suburbs of
Johannesburg, regarding Hormone Therapy.**

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the Witwatersrand, in partial fulfillment of the requirements for the degree of**

Master of Family Medicine.

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Declaration

I, Dr Christine Margaret Plant declare that this thesis is my own work. It is being submitted for the degree of Masters in Family Medicine in the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination at this or any other university.



Signature

30 of Dec 2010.

Dedication

To my family, Angus, Sarah and Daniel who have been extremely supportive throughout this whole process, and without whose help and encouragement I would not have completed this research.

Abstract

Objective: To determine the knowledge and practice (usage) of hormone therapy (HT) amongst peri and post-menopausal women in the southern suburbs of Johannesburg attending private general practitioners.

Design: A descriptive cross sectional study was conducted among 14 GPs' practices' patients from December 2009 to February 2010. Sociodemographic characteristics, gynecological history, source of knowledge, along with actual knowledge about benefits and side effects as well as HT usage was obtained using a 23- item structured questionnaire.

Results: 337 questionnaires were analyzed. The mean age of respondents was 54 years. The majority of the respondents were married. 59% had a Grade twelve education, and 40% had further education. 73% had health insurance.

44% had used HT to treat menopausal symptoms, with a current usage of 24%. The majority of those using HT were using it to treat hot flushes, and for those not using HT, the reason given was that they were asymptomatic. 24% had used alternative medicine for the treatment of menopausal symptoms. 59.8% of the respondents had undergone a hysterectomy.

Respondents found doctors and nurses to be the most helpful source of information about HT, yet only 45% had talked to their GP and 41% to a gynecologist about HT. Respondents' had some knowledge about the benefits and side effects of HT, with the majority being aware that HT helps in the prevention of hot flushes. Many respondents felt that HT caused weight gain, and breast cancer.

Conclusions: Although information imparted by doctors is highly valued by their patients and patients who have discussed HT with their doctors know significantly more about HT than those who have not, only 40% of respondents are discussing HT with doctors. The number of respondents using HT for treatment of menopausal symptoms, is similar to those using natural remedies. Communication between doctors and their patients regarding HT needs to improve in order to assist women to make informed decisions when deciding on treatment options, concerning menopause.

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Definitions and abbreviations

1) Hormone Therapy: HT

This refers to the use of the female hormones for the treatment of menopausal symptoms in women. This can be estrogen alone or estrogen with progesterone.

The more recent literature¹ uses the term Hormone Therapy (HT) instead of Hormone Replacement Therapy (HRT). Throughout this document the term Hormone Therapy is used and it refers to the above definition.

2) Women's Health Initiative: WHI

3) Million Women Study: MWS

4) Complementary and Alternative Medicine: CAM

This is a broad term encompassing a range of diverse modalities and diagnostic approaches that generally lie outside the dominant healthcare system. Popular CAM treatments include for example, black cohosh, red clover and soy products.

5) Cardiovascular disease: CVD

CHAPTER ONE INTRODUCTION

The climacteric is the phase in a woman's life associated with physical changes that signal the end of the reproductive years². The menopause is defined as the cessation of menstruation. (menopause is a single point in time). Although, on average, the onset of menopause occurs between the ages of 50 and 51, there is a wide range of both the timing and the presentation of menopause.

Approximately 75% of all women aged 45 years and older will experience menopausal symptoms^{3, 4}. The typical short term symptoms range from irritability, anxiety, headaches, depression, insomnia, hot flushes, night sweats, genitourinary symptoms, and skin changes. In the longer term there is a higher risk of osteoporosis and cognitive decline. Heart disease is also increased after the onset of menopause.

It is estimated that in the year 2030, 1,2 billion women will be peri or post-menopausal and this will increase by 4,7 million a year.² The average woman in the developed world can now expect to spend approximately one third of her life in the post menopausal state. According to Malik, physicians need to realize that menopause is not a negligible phenomenon but a major public health problem.

Maximizing the health potential of post-menopausal women is multi-factorial. It includes lifestyle recommendations concerning diet, smoking and alcohol, as well as regular gynecological checkups which include pap smears, blood pressure, glucose and cholesterol tests, as well as a mammogram and bone density scans.⁵

Hormone Therapy remains the most effective therapy for vasomotor and estrogen deficient urogenital symptoms. HT has also been used to treat mood swings, joint and muscle pains, sexual dysfunction and reduced libido associated with menopause.³

In the 1980s and 1990s HT was shown to have a good symptomatic effect and to improve considerably the quality of life of women suffering from menopausal symptoms.⁴

However, following the release of the Women's Health Initiative Study (WHI)⁶ in July 2002, there was a sharp decline in the use of HT.^{7, 8} 63% of American women reported discontinuation of treatment. This was not uniform throughout though, for example, the corresponding decline in Germany was 26%.^{9, 10}

The Women's Health Initiative⁶ (WHI), sponsored by the US National Institute of Health, (NIH) and the UK's Million Women study (MWS)¹¹, sponsored by the British Medical Research Council (MRC) and Cancer Research UK, both found that HT significantly increased the risk of invasive breast cancer. The WHI study also found higher risks of heart attack, stroke and thrombosis. The NIH took the unusual step of halting the WHI trial and recommended that women stop taking HT for mild menopausal symptoms.

Usage of HT as a treatment for menopausal symptoms was problematic before the WHI and MWS studies⁹ and is related to many factors, including adverse side effects such as vaginal bleeding, weight gain, and breast engorgement. Many other factors have also had an effect on HT usage including the belief that HT is no longer needed, ethnic origins, religious and educational factors and socioeconomic status.⁹

Today, the electronic media and press have a profound influence on society. This means that the patient is swayed by diverse sources of information and that no doctor today can ignore the fact that patients' source of medical information is no longer solely the physician.⁹ Almost all the women in the USA and German studies had learned about the WHI results from the media rather than from their physicians. Information and opinions obtained from the media have become major determinants of drug use.¹² The problem with this is that women may be making decisions based on information that is of poor quality and biased. Doctors will have to take this into account when advising patients. Schonberg,¹³ also showed that many women discontinued HT after the WHI trial, given their experience with HT, and that some women are now less trusting of medical recommendations and less likely to take drugs for cardiovascular disease prevention.

It is to be noted that the WHI and the MWS not only affected patients' attitudes, but also had a profound effect on doctors' prescribing habits, making the confusion and distrust all the more overwhelming. In the field of Hormone Therapy, some studies indicate that knowledge among doctors about risks and benefits is poor.¹⁴ Hess also noted that pharmaceutical detailing was associated with inappropriate attitudes towards HT risks.^{9,14}

Patients' knowledge regarding HT, as well as the current usage of HT in different countries is documented in the literature, which will be discussed in the Literature Review Chapter.

Despite the prominence of the evidence-based-practice-movement and a trend for doctors to use evidence-based-best-practice and clinical guidelines, which will be discussed later, doctors

must appreciate that health decision making is fraught with inherent uncertainty. Uncertainty exists in the application of research evidence to individual patients, and also in that the evidence itself is provisional, emergent and incomplete. Patients themselves are faced with the same dilemmas.¹⁵

Knowledge about HT has been shown to be an important factor in usage of HT for the management of menopausal symptoms.²

The aim of this study was to explore peri and post-menopausal women's knowledge of and practice with regard to HT, attending private general practices in the southern suburbs of Johannesburg. This population was decided upon because the researcher works in this area, and the results obtained from this study would effect change in the researcher's care of patients.

1.1 Objectives:

- 1) To determine the demographics of the study population with respect to age, education level, past gynecological history, marital status and medical insurance.
- 2) To determine the respondents' knowledge about the benefits and side effects of Hormone Therapy in the study population.
- 3) To determine the source of the respondents' knowledge about Hormone Therapy.
- 4) To determine the extent of Hormone Therapy usage in the study population.

CHAPTER TWO LITERATURE REVIEW

2.1 Introduction

This literature review is centered on the following issues:

- Overview of the current guidelines and indications for the usage of HT.
- Controversies surrounding the use of HT.
- Studies relating to women's knowledge and perception of HT, as well as usage of HT.

2.2 HT in the Management of the Menopausal Woman

HT remains the most effective therapy for vasomotor and estrogen deficient urogenital symptoms.³ The typical short term symptoms are hot flushes, night sweats, headaches, dizziness, palpitations and insomnia, menstrual changes, vaginal dryness, increased bladder infections as well as anxiety, irritability and depression. Vague muscle aches and joint pain have also been described.¹⁶

HT has also been shown to have long term benefits in the following situations:

2.2.1 HT and Osteoporosis

Bone loss is increased at menopause, and HT helps to prevent bone loss associated with menopause, therefore decreasing the incidence of osteoporosis-related fractures including vertebral and non-vertebral fractures. Osteoporosis is a major health problem in menopausal women. HT is therefore appropriate evidence-based first-line-therapy in post-menopausal women presenting with an increased risk for fracture (particularly those younger than sixty) and additionally for preventing bone loss in women experiencing menopausal symptoms, or who have presented with menopause at an early age.⁵

2.2.2 HT and Cardiovascular Disease

Cardiovascular Disease is the principal cause of morbidity and mortality in the post-menopausal woman. The primary protective measures include weight loss, exercise, blood pressure reduction, glucose and lipid control, smoking cessation and moderate use of alcohol. Both the public and physicians are concerned that HT increases the risk of cardiovascular disease, despite recent evidence showing that; in general, this is not the case in all age groups. Evidence now suggests that HT may be cardio protective if started around the time of menopause.¹⁷

The International Menopause Society Consensus Statement states that HT can be given to women around the age of natural menopause without increasing the risk of coronary heart disease and may even decrease the risk in this age group. HT is also not contraindicated in women with hypertension.⁵

HT is not to be used in women who have had a history of myocardial infarction, stroke or pulmonary embolism.

2.2.3 HT and Cognitive Function

The Cache County Study and Mirage Study both demonstrated that HT may protect women against Alzheimer's disease, if started early after menopause,⁵ however the WHI study showed that there was not a protective effect in the older age group.¹⁸

2.3 Potential Serious Side Effects of HT

Studies on the risks of HT have mainly focused on breast and endometrial cancer, venous thromboembolism and deep vein thrombosis, strokes and coronary events.

Unopposed estrogen therapy causes endometrial hyperplasia and should not be used in women with a uterus. Endometrial cancer in users of continuous combined HT is extremely uncommon¹⁹. If bleeding occurs while on HT, especially if it occurs after a period of six months of amenorrhoea, it should be investigated. Assessment of these women entails ultrasound imaging of the endometrium, hysteroscopy and diagnostic dilatation and curettage and endometrial assessment through biopsy.

The risk of breast cancer and HT is discussed more fully in 2.5.2. Over 50 epidemiological studies and six meta-analyses have examined the association between HT and breast cancer in

the past 30 years.²⁰ Among the studies that have examined estrogen-only use, 82% found no effect on breast cancer risk, 13% reported a modest increase and 5% reported a reduced risk. The results of the studies with estrogen and progestogen preparations show a small increase in risk, but only after five years of usage.²⁰ This was further shown in the WHI study.⁶

In 2010 the guidelines for the management of the peri and post-menopause are as follows:

2.4 Current Clinical Guidelines for the Management of Menopause and the use of HT

The menopausal transition should be utilized as a window of opportunity to assess and manage specific as well as general health related matters. Medical history and examination should be supplemented by specific investigations. These may include a fasting lipogram, blood glucose, thyroid function, BMI, mammography, and a DEXA bone scan. Investigations for hypercoagulability states should only be undertaken in patients at risk (personal or family history of venousthromboembolic disease) before instituting HT.⁵

Lifestyle modifications such as smoking cessation, diet, and the maintenance of appropriate body mass index, exercise and stress reduction should be discussed.

Treatment of dyslipidaemias, hypertension, diabetes and other medical conditions should be optimal.

HT should be initiated for specific indications, provided there are no contraindications and should be individualized according to each patient's needs.⁵

2.4.1 Indications for HT

- Treatment of vasomotor symptoms and associated sleep disorders
- Symptomatic urogenital atrophy
- Prevention of bone loss in women with premature menopause, secondary amenorrhoea and women with osteopenia at risk for fracture.
- The treatment of osteoporosis in women in the age group 50-60 years at risk of fracture, with or without vasomotor symptoms. If HT is considered for the sole purpose of the prevention or treatment of osteoporosis, other proven bone specific therapies should be considered.⁵

2.4.2 Contraindications

- Current, past or suspected breast cancer
- Known or suspected estrogen dependent malignant tumours.
- Undiagnosed genital bleeding
- Untreated endometrial hyperplasia
- Previous idiopathic or current venousthromboembolic disease.
- Known arterial Coronary Heart Disease.
- Active liver disease
- Porphria cutanea tarda (absolute contraindication)⁵

2.5 Issues that have caused confusion over the past decade regarding the use of HT

2.5.1 The Cardiovascular Risk Debate

After menopause the risk of cardiovascular disease (CVD) increases regardless of the age at which this occurs¹⁷ but the potential role of HT in CVD management remains controversial. HT is the most effective way of treating menopausal symptoms but, despite extensive and good quality clinical outcome data on efficacy and safety when HT is begun for symptoms in early postmenopausal patients (ages 50-55), patients and doctors alike now believe that HT results in an increased CVD risk and is therefore unsuitable for the relief of menopausal symptoms.

This is as a result of the concerns about HT safety following the publication of the Women's Health initiative study(WHI)⁶ in particular and the initial assessment of the data in 2002, which suggested that there was an increased risk of coronary heart disease and breast cancer in users of HT containing estrogens and a synthetic progesterone.

Since then, more detailed analyses of the WHI data have since shown that the apparent increase in risk of CVD is not statistically significant and, furthermore that when HT is started around the time of menopause, there is no significant risk and HT may even be cardio protective.²¹ This re-analysis in younger women by the WHI authors has received little publicity.

2.5.2 The Breast Cancer Debate

HT is associated with a small increase in the risk of invasive breast cancer if used for more than five years. Although the relative risk is in the order of 1.35, the absolute increase in risk is small (e.g. WHI: 8/10 000 per year or less than 0.1% per year) but increases with the duration of treatment if initiated after the age of 50 years. It is possible that this does not imply causality, but rather modification of pre-existing malignancy. Carcinoma in situ has not been shown to increase in any study. The effect is more pronounced in lean patients and the increased risk disappears 5 years after cessation of therapy.²⁰

Estrogen replacement on its own, does not increase the risk of breast cancer.²⁰

2.6 Factors affecting Usage of HT

In 2010, as has been discussed, there is clinical evidence of the beneficial role that HT has in the management of the menopausal woman²² and yet, as will be shown, HT remains an under-utilized modality of treatment. The reason why a patient does or does not take medication is based not only on the best clinical evidence, but on other factors such as culture, socioeconomic status; education; influence of the media; perception of menopause and perceived adverse effects, advice from health care providers, as well as the use of natural remedies/ CAM. (Complementary and Alternative Medicine).

2.6.1 Demographics: Developed Countries versus Underdeveloped Countries

In the past decade, there have been at least 23 studies about knowledge, attitudes toward and usage of HT in different countries. The majority of these were in developed countries, especially the United States and Europe. This was predominantly after the WHI and MWS studies. However, there have also been studies in India, Asia, South America and South Africa.

In underdeveloped countries the results differ from the results of the developed world, although overall, usage rates of HT are low.² Malik conducted a descriptive cross sectional study about knowledge and attitude towards menopause and HT among post -menopausal women, based on a sample of convenience at outpatient services of a hospital in Karachi, India. The study was undertaken from January to April 2005. Of 102 post-menopausal women who were interviewed, only 2, (1.96%) knew about HT.

In Ecuador, (an underdeveloped South American country) Leon-Leon²³ obtained information regarding HT. Use, perception, level and source of knowledge was obtained using a structured questionnaire in a cross sectional study. 349 women participated and the results showed that only 50.1% of the women considered HT beneficial and current and former users were low (1.7% and 14.3% respectively). This is a small study, but the population was from nursing staff, who one would expect to know more, and yet the usage and knowledge of HT is very low.

In South Africa, in the rural area of Kwa-Zulu Natal, Frederichs¹⁶ undertook a descriptive study to describe the incidence and understanding of post-menopausal symptoms in a group of Xhosa women, and found that they were unaware of the potential benefits of HT. 94% had never heard of HT and usage was not measured, although their experience of menopause was similar to their Caucasian counterparts, and in fact had a higher incidence of vasomotor symptoms. Due to lack of knowledge of treatment available, these women remain untreated. A limiting factor is that it was a small study and all the women were attending one private practice, which could introduce bias. It was, however, an interview-based study, which is a strength in that the interviewer was a registered nurse and spoke the local language.

In the developed world, we find that patients are more aware of HT and usage rates are higher than in the underdeveloped world. In Scotland, which is a developed country, Rigby²⁴ conducted a postal survey in 2000, comparing results from a similar study completed in 1991. The aim of this study was to monitor changes in women's knowledge of and attitude towards HT. The results of the study showed a current user rate of 17% with an ever user rate of 22%. Hoffman¹² showed in his study (conducted in Sweden) that the HT user rate changed from 40.5% to 23.3%, between the years of 1999 and 2003. Studies in the USA show an average rate of 22%, this has also changed from a range of 43%-71%.²⁵ This is thought to be due to the influence of the results of the WHI study and will be discussed further in 6.3(Influence of the Media.)

2.6.2 Knowledge about HT

Knowledge of benefits and side effects of HT studies have been undertaken in different parts of the world.

In South Africa, Maharaj²⁶ utilized a structured questionnaire to assess knowledge of the menopause and HT (not usage) in 150 women who were from under-resourced backgrounds. Specific knowledge about menopause and HT was low (39% and 38% respectively). The

women were in the age group 18-40 years, and specifically anyone who had used HT was excluded from the study. This age group would be expected to have low knowledge scores, as one only acquires knowledge about a subject once it applies to the individual.

Similarly, in Ecuador²¹ only 50% of women considered HT to be of benefit and only 28% believed that they had enough information regarding HT. Thus, it appears evident that poor knowledge of HT affects usage of HT. This trend is reflected once more in Baig's study of women's knowledge of HT in Pakistan.²⁷

Baig²⁷ showed in his study, in Pakistan, that the main source of information about menopause included relatives (35%), television (18%), neighbors (17%), friends (17%), and health care providers (14%), although 53% indicated that women should consult a physician pre-menopausally to discuss the issue of menopause. This study was a population-based cross-sectional study, using interviews to obtain information, which yield better information than questionnaires. Malik² showed that in Karachi the majority of women lacked sufficient knowledge on menopause and HT.

Research undertaken in Sweden reveals changing attitudes towards HT, although women's attitudes towards menopause seem to have remained stable. Lindt-Astrand¹⁸ undertook a questionnaire-based study asking all women aged 53-54 years in the community of Linköping, Sweden about attitudes regarding menopause and HT. This study utilized a questionnaire that used a tick box format and a 5 graded Likert scale. In this study 1180 women responded to the questionnaire in 1999 and 1239 in 2003. Most Swedish women had a largely biological view on menopause, (ie that the menopause is a natural process due to aging and hormone deficiency) and felt that women with severe symptoms should use HT. Women's attitudes towards HT had changed significantly from 1999 to 2003, after the recent reports on risks from long term use of HT, whereas the attitudes towards menopause itself were stable. These results were thought to be due to the media playing a role as well the health care providers' apprehension toward the risk benefit balance of HT.

Thus it may be seen that lack of information about HT is an important reason for not using it, and the lack of knowledge being greatest in the less educated, older and poorer socioeconomic classes. However, too much knowledge may also act as a hindrance to using HT, because the issues are complex and affected by so many factors, including the impact of the media. Much of the evidence is also questionable.

2.6.3 Influence of the Media

In July of 2002 the Writing Group for the Women's Health Initiative Investigators published their initial results for the trial of combined estrogen and progestin (progesterone) in women with a uterus⁶. The trial was stopped early, based on the perception that the health risks exceeded the benefits.(i.e. first analysis of the results.) The Million Women Study (MWS) undertaken in Great Britain in 2003 showed similar findings.¹¹ The results were given to the media before the studies were analyzed and flaws recognized, e.g. a standard dose of HT was used whether the woman was 50 or 79 years. The majority of women who were recruited were over sixty. 7.7% had a past history of cardiovascular disease and 35% were on anti-hypertensives or statins and yet the WHI study was described as a Primary Prevention study of normal healthy women.

Unfortunately, even when the flaws of the original analysis were conveyed in print, it did not prevent the public from believing in the negative side effects of HT. This misperception was fixed in the public memory.⁹

Even though there has been peer review of the data there is still the perception with the public that HT causes breast cancer and CVD.

The WHI in the United States and the MWS in the UK not only affected patient's attitudes but also had a profound effect on doctors' prescribing habits, making the confusion and distrust all the more overwhelming in the field of treatment of the menopausal woman. Knowledge among doctors about the risks and benefits of HT is poor. Hess¹⁴ also noted that pharmaceutical detailing was associated with inappropriate attitudes towards HT risks.

In 2010, the guidelines, benefits and side effects are clearer than in the years after 2002. Yet in a Women's Health article written for Update²⁸, (a journal of Continuing Education for General Practitioners) dated April 2010, the following is written: "While estrogen remains the best known therapy for hot flushes, recent large studies such as the Women's Health Initiative and the Million Women Study suggest that long term estrogen is associated with an increased risk of heart disease, thromboembolic disease and breast cancer". Stearns does not go on to qualify or explain that these findings have been peer reviewed and shown to be incorrect. A busy GP, reading to keep abreast of current trends, can be misled, and this in turn will cause patients to be misinformed.

Following the release of the WHI study in July 2002 there was a sharp decline in the use of HT. 63% of American women reported discontinuation of treatment. Schonberg¹³ conducted a randomly selected telephonic survey from July to September 2003, selected from a large academic primary care practice in Massachusetts. Women aged 50 years and older, who were taking HT in July 2002, were included. Of the 204 women, 54% were taking combination HT. 94% had heard of the WHI study and 70 % stopped HT after hearing about the results of the WHI study.

Hoffman¹² conducted a study in Sweden to assess the changes in women's perception about the risks and benefits and use of HT before and after the WHI and the HERS studies. Postal questionnaires had been sent out in 1999 and again in 2003. 1700 questionnaires were received. Usage of HT fell from 40.5% to 25.3%, and the women who had used complementary medicine increased from 9.6% to 18.1%.

In England, Lewin et al²⁵ monitored the change in women's knowledge of attitudes and usage of HT also from 1991 to December 2000. In 1991 the study of 1500 Grampian women showed that the current HT usage was 9%. and 7% had taken it in the past. In the 2000 results 17.4% were current users, and 22% were past users, and 60% were never users. This level of HT usage is consistent with other UK studies and is lower than in the USA where 43% to 71% of post-menopausal women were reported to be using HT. (This was before the WHI study was released.).

In 2004, Rigby²⁴ conducted a study to evaluate women's awareness and knowledge concerning the risks and benefits of HT. A nationally representative survey, in the USA, of 781 women (mean age 49 years), 24 months after the publication of the first WHI findings was completed. Only 29% of women were aware of the WHI results. Only 40% had a positive aggregate knowledge score. Knowledge scores were found to be lower for African-American women and women with less education. Knowledge was best for breast cancer and osteoporosis outcomes.

Current HT usage varies in different countries. In Sweden it has dropped from 40% in 1990, to 23% in 2003. In the USA it is at 22% post WHI.⁹ The KAP studies that have been done in Sweden, Germany and the USA show a progressive change in attitude toward, and a decline in, usage of HT.⁹

2.6.4 Discussing HT with a Health Care Professional

If doctors fail to take into account patients' knowledge and attitudes about menopause and the role of HT, they will be less effective in the treatment of their patients. One would assume that menopausal women discuss menopause with a doctor. Hvas²⁹ in his study showed that 71% of peri and post-menopausal women had discussed menopause with a doctor, either a GP or a gynecologist. There were significant differences between women who had discussed menopause with a doctor and those who had not. The more problematic the symptoms, the more likely the woman would have discussed the problems. Women who had not discussed menopause with a doctor had fewer symptoms and were more critical of HT. In Pakistan,²⁷ all of the respondents had consulted a physician for various symptoms related to menopause and 53% said that women should consult a physician pre-menopausally.

In the study done by Maharaj²⁶ the women had received little information from health care providers (General Practitioners 35.3%, hospitals 33.1%) and most women in this study had received their knowledge about menopause from family and friends, although the age group of the study was for women aged 18-40 years, this age group would not be targeted by doctors to discuss the menopause. Leon-Leon²³ also found a willingness to participate in educational sessions addressing the issues of menopause and HT in 93.1% of respondents. For most of the women in Leon-Leon's study the source of information was physicians, educational sessions and television.

Sveinsdottir³⁰ conducted a study among women drawn from the National Registry from Iceland. 561 women were asked to complete a self-administered questionnaire about menopause and HT. Participants generally had a positive attitude about HT, however, receiving the information about menopause and HT from a doctor, and discussing it with a doctor, was associated with greater positivity. Positive attitudes toward HT were associated with higher age, time since last menstrual period and current usage of HT. Negative attitudes were associated with use of natural remedies and receiving information from or discussing HT with family or friends.

A hospital based survey was undertaken in Bangkok,³¹ to assess women's attitudes and acceptance towards menopause and HT. In 2003, 615 women were asked to complete a standardized questionnaire. 53.9% were current users of HT, and the most common reasons for initiating HT were osteoporosis, hot flushes and vaginal dryness. Of all the current users, 43.2% wanted to change from HT, and most respondents, (95.4%) based their decision on the choice of treatment on medical advice.

Grisso³² reported that despite the high prevalence of symptoms, few women had discussed menopausal management with their doctors. For white women, the media was the primary source of menopause-related information, whereas African-American women reported that their family was the primary source of information.

2.6.5 Use of Natural Remedies

Complementary and alternative medicine (CAM) or natural remedies are broad terms encompassing a range of diverse modalities and diagnostic approaches that generally lie outside the dominant healthcare system. These range from self-care techniques (including relaxation and stress management techniques) as well as CAM products for menopausal symptoms which include products such as black cohosh, red clover, soy products and vitamins³³.

Despite the effectiveness of HT, a significant number of women discontinue treatment within twelve months of its initiation because of side effects such as bloating, breast tenderness and breakthrough bleeding. As has been discussed, there are also the issues of cancer and cardiovascular risks, as well as the influence of the media; therefore it is not surprising that women with menopausal symptoms seek other treatments.

The prevalence of CAM usage varies from 11% to 82.5%.³³ Patching van der Sluijs³³ conducted a study to determine the CAM usage in Sydney. The study was questionnaire-based involving 1296 women. The study showed that 53% of surveyed women aged 45-65 years had used at least one CAM product during the past year to alleviate menopausal symptoms.

Hoffman¹² showed that in Sweden the use of natural remedies for the treatment of menopausal symptoms had increased from 9.6% to 18.1% over the years from 1999 to 2003. This information was obtained from sales of these products from the data-base of the National Corporation of Swedish Pharmacies.

These products are easy to obtain, non-scheduled, over the counter products. In the Patching van der Sluijs study, a significant proportion of respondents were using CAM products in conjunction with conventional HT. 62% reported using a CAM product over the past year without discussing it with a health care professional.

2.6.6 Other Demographic Influences

- Age.

Age is a confounding factor for knowledge and usage of HT. Astrand¹⁸ showed that women's attitudes change as they reach menopause, from a more pessimistic view to a more neutral or optimistic one.

- Education

In the study by Maharaj²⁶, it was found that there was a significant association between higher education levels, race and occupational status and knowledge about menopause, but not of HT. Higher education was shown to have a positive impact on knowledge of menopause, although overall knowledge of specific issues relating to HT remained low. (as mentioned earlier this could be due to the age group that was chosen :18-40 year olds.)

Increased education does not necessarily equate with more knowledge and therefore more usage of HT. Lewin²⁵ found that there was a decrease in the usage of HT in the more educated group, and suggested that this may indicate that the more educated women are more aware of the inconclusive risks and benefits of HT, and therefore less likely to take HT to treat menopausal symptoms.

CHAPTER THREE METHODOLOGY

3.1 Design

The study was a cross-sectional descriptive study.

3.2 Site of Study

The study was undertaken in general practitioners' practices' in the southern suburbs of Johannesburg. The southern suburbs include older areas such as Rosettenville and The Hill, which tend to be on the lower end of the socio economic spectrum, as well as the "new south", which includes areas such as Bassonia, Glenvista, Mulbarton and Alberton. These represent a more affluent population.

Market research³⁴ undertaken by Mulbarton Hospital in 2007, has shown that the population is a maturing one, with 23% of the population between the ages of 40 and 60 years as well as a large segment (41%) belonging to the 20-40 year-old group. The gender distribution is approximately 50% and in terms of race, 51% are white, with 33% black, 10% coloured and 6% Asian. The unemployment figure for the south is given as 16%, and those who have medical insurance are approximately 30%.

These practices will not necessarily be representative of the wider population of South Africa, but have been chosen because they serve a mixed urban population in terms of age and education and the researcher practices in a similar population group. These practices are accessible and the subjects are literate.

3.3 Study Population

Peri and post -menopausal women aged 45 to 70 years, attending randomly selected practices of private doctors (general practitioners) in the southern suburbs of Johannesburg.

3.4 Sampling

3.4.1 Sample Size

Sample size was based on objective 4, i.e. prevalence of Hormone Therapy Usage. An estimate of usage is not available and hence the conservative route is followed where sample size is determined under the assumption of 50% usage. To estimate the prevalence to 5% precision, i.e. the 95% confidence interval, falls within 5% of the prevalence, a sample size of 385 was required. (nQuery Advisor 6.0). i.e. 385 from 14 practices.

To provide for a 30% non return, 14 practices were required, and they were randomly selected from all practices prepared to participate in the study, was required. Each participating practice was supplied with 40 questionnaires. This sample size had the advantage that subgroup analysis would still provide good precision.

3.4.2 Doctor Sampling

The sampling frame was obtained from the Netcare Directory listed under the Mulbarton Hospital. This was chosen because the hospital is central to the geographical area. The hospital Human Resources Department had contacted the GPs in the area and asked for their contact information. The hospital does this on a yearly basis for their records. The list is comprehensive but does not include all the doctors practicing in the area, as the doctors had to forward their information to the hospital. It was completely voluntary. After discussion with the Human Resources Manager at the hospital, it was decided that the list was representative of the doctors that use the facility as a referral centre.

The practices were obtained using a random method of selection from the supplied list. A random number generator obtained from Microsoft Homepage (free download) was used to generate the list of doctors.

The researcher phoned consecutively the doctors on the list, asking if they would be willing to take part in the study. If they declined then the next on the list was contacted. If a practice was found to be unsuitable due to demographic issues, retirement or duplication of doctors working in the same practice, they were eliminated. Doctors were phoned until 14 practices had been selected.

The initial contact with the doctors was telephonic. If they agreed to be involved, they were provided with more information, including an information letter for the doctors explaining the study, as well as a formal letter of consent for each practice. Each practice was visited by the researcher and the study was explained verbally. At this meeting written consent from the doctor was obtained. (see appendix 2).

3.4.3 Patient Sampling

The doctor's receptionists were briefed about the purpose of the study as well as how to ask the patients to fill in the questionnaire. They were to approach, on a consecutive basis, all women in the target age group who attended the practice during the collection phase.

3.5 Inclusion and Exclusion Criteria for Patients

3.5.1 Inclusion criteria

- i. Female patients who were 45 to 70 years of age.
- ii. Patients who were sufficiently literate to answer a questionnaire.
- iii. Patients who consented to complete the questionnaire.

3.5.2 Exclusion Criteria

- I. Acutely ill patients

3.6 Measuring Instrument

The study was conducted using a self-administered questionnaire. The questionnaire comprised three sections: basic demographics, practice or usage of HT and knowledge about HT.

The questions were derived from discussions with colleagues, the researcher's clinical experience and examples from other studies.^{15, 29}

The questionnaire asked basic demographic questions, age, educational level, occupation and whether the respondent had medical insurance.

The next section of the questionnaire asked questions about women's health. Whether they were still menstruating, when they last had a pap smear and whether they had used HT for the management of menopausal symptoms.

The final section asked about whether natural remedies had been used; source of knowledge about HT; whether they had talked to a doctor about HT and then what the respondents knew about the benefits and side effects of HT. The questionnaire is attached. (Appendix 4).

3.7 Pilot Study

A pilot study was conducted in the researcher's practice, to review the questionnaire, method of data collection and analysis.

The pilot study was undertaken over a week from the 2nd to the 6th November 2009, during which time 33 questionnaires were collected from women aged 45 years and over.

The initial data from the pilot study was coded in Excel, and analyzed by means of tables and graphs.

From the pilot study it was evident that most of the women who completed the study were within the age group 45-65 (74%), therefore this was the most appropriate age group for the final study, as they would also be the group most affected by HT. It was observed that people falling above this age group (above 70 years) had trouble completing the questionnaire correctly, and they were often unaware of many of the aspects of the study. The age group was then limited to women between the age of 45 and 70 years.

The question about sources of information about HT and how helpful they were (Questions 12 and 13) were so poorly answered (17 people did not fill in the question out of 33) it was decided to reformulate the question by combining them and requiring the patients to tick a box.

Questions about the side effects and the benefits of HT were also re-done in a tick box format, as patients did not answer the questions adequately. The revised questionnaire was further piloted on 5 women and further minor refinements were made.

The final questionnaire was thus different from the initial one. Significant changes involved the questions about source of knowledge about HT and also the women's knowledge about benefits and side effects of HT.

3.8 Data Collection

Data collection took place in the various practices during December 2009 and continued until the 28th February 2010.

The receptionists were briefed on how to offer the questionnaire, and the researcher provided laminated reminders of the inclusion and exclusion criteria for the receptionists. The receptionists were offered an incentive of a gift of chocolates or biscuits for helping in the data collection process.

The participating doctors' receptionists approached, on a consecutive basis, all women in the target age group who attended the practice. The patients were asked to fill in the questionnaire before they went in for their appointment. If a patient refused, this was noted and the next patient who fulfilled the criteria would be asked. An information letter was given to each patient (Appendix 3).

The letter informed the patients about the reasons for conducting the study and ensuring complete confidentiality and anonymity. Both responders and non responders were asked to place their questionnaires in a sealed box. Questionnaires were continued to be given out until 40 respondents were obtained. Non responders were also recorded.

Should the questionnaire generate questions then the respondents were invited to discuss HT with their doctor. A suggestion to this effect was included in the information letter to the patients. (Appendix 3).

3.9 Ethical Issues

The protocol was submitted to the Committee for Research on Human Subjects on the 27th July 2006, and permission was granted to conduct this study. The clearance certificate number is R14/49. (Appendix 1).

Consent from each of the participating doctors' practices was obtained by the researcher. This was after the researcher had explained the purpose of the research as well as the study design and methodology. The consent letter is attached (Appendix 2).

The practices are known to the researcher, but the women participating in the study were anonymous to the researcher. An information letter was attached to the questionnaire. (Appendix 3). This letter explained the nature of the research, assured confidentiality and anonymity. Information about HT was also offered on request for any respondent requiring more information on the topic. The respondents were also invited to discuss HT with their doctors.

3.10 Data Analysis

Data was captured in Epi Info and Ms-Excel. Data cleaning was done to identify missing and extreme values. Data coding included age groupings, education, occupation as well as knowledge of benefits and side effects was completed in Epi info.

Descriptive analysis using frequency tables (frequencies and percentages), bar graphs, and tables were used for presentation of demographic and women health data. Inferential analysis, using chi-square tests was done to compare significant differences between the knowledge of HT and independent variables. Statistical significance was set at $p=0.05$.

CHAPTER FOUR RESULTS

4.1 Response Rate

40 questionnaires were given to 14 practices. I.e. 420 questionnaires were given out and 337 were filled out correctly and were able to be coded. This gives a response rate of 80.02%. 25 doctors were contacted telephonically to obtain 14 doctors who were willing to be involved in the study.

- 1 doctor was not willing to take part in the study.
- 4 doctors were no longer practicing as they had either moved or retired.
- 3 doctors were not able to be contacted (after 3 attempts at telephonic contact failed).
- 2 doctors had an unsuitable patient profile for the study. (1 doctor worked at the prison in Meredale, and one doctor did not see women).
- 1 doctor was associated with a practice that was already included in the study.

Collection of data began in December 2009 and continued until February 28th 2010. Follow up phone calls as well as visits then took place over the collection time.

It was intended that the questionnaires be handed out consecutively. This did not occur, although it had been explained that every patient in the required age group should be asked. The reasons it did not occur are varied:

- Doctors had different receptionists and the questionnaire was not explained to everyone involved in the data collection process.
- Receptionist resistance. Although the receptionists had said that they would ask patients, it became evident that they forgot, or became busy, etc.
- Some receptionists went on holiday. Collection of data began in November and some practices closed or worked with different staff over this period. On returning they then forgot, but when reminded started asking again.
- One practice completed the study in three weeks, but in some practices adequate numbers were never completed. Various reasons were given for this, the main one being that the doctor didn't see middle aged women. Another practice was involved in "medical spa therapy" and despite repeated follow up only 5 forms were obtained.

- At the beginning of February it became evident that a more intense follow up was needed to complete the study. The researcher employed a receptionist for 3 weeks. She spent 4 hours, Monday to Friday, visiting and following up the practices involved in the study. She was able to spend time at the practices, asking the patients who fulfilled the criteria to fill in the questionnaire.
- The data was captured using Epi info and analyzed using Epi info as well as Ms- Excel, using frequencies and tables.
- 374 forms were completed of which 37 were excluded due to incorrect ages.

4.2 Doctors' Practices

The number of returned questionnaires per practice is shown in table 4.2. In 9 practices the required number of questionnaires was obtained. In 5 practices the required number could not be obtained.

Table 4.2 Doctors (N=14)

Doctor	No of Questionnaires	% of Total
1	5	1.5
2	8	2.4
3	30	8.9
4	29	8.6
5	15	4.5
6	28	8.3
7	30	8.9
8	30	8.9
9	30	8.9
10	21	6.2
11	31	9.2
12	30	8.9
13	31	9.2
14	19	5.6
	337	100

4.3 Demographics

4.3.1 Age of Respondents

The respondents were asked to give their ages. The results are shown in Table 4.3.1

Table 4.3.1 Age Groups (N=337)

Age Group	Frequency	%	Cum %
45 -49	96	28.5	28.5
50-54	96	28.5	57.0
55-59	58	17.2	74.2
60-70	87	25.8	100.00
Total	337		

The mean age of the respondents was 54.7 years of age. The range was 45years to 70 years with the median being 54 years.

The respondent's ages' were divided into 5 year groups. This enabled the respondents to be classified as peri-menopausal and in the early and late phases of menopause.

4.3.2 Marital Status of Respondents

The respondents were asked to state their marital status. The results are shown in Table 4.3.2. It can be seen that 66.8% (225) of the respondents were married.

Table 4.3.2 Marital Status (N=337)

Marital Status	Frequency	%
Divorced	51	15.1
Married	225	66.8
Single	26	7.7
Total	337	

4.3.3 Education level of Respondents

The respondents were asked to give the last grade that they had completed at school. The results are given in Table 4.3.3.

Table 4.3.3 Education Level (N=328)

Education Level	Frequency	%
G12	201	61.3
G11	21	6.4
G10	65	19.8
G9	6	1.8
G8	19	5.8
Other	16	4.9
Total	328	

Of the 337 respondents, 328 answered the question. This gives a response rate for this question of 97.3%.

Of the respondents, 61.3%, (201) had reached Grade 12 level. This would be considered an educated population. 9 respondents did not answer the question. The "other" category included "trade test hair dressing", "payroll certificate", and 7 had ticked other, but had not written anything.

4.3.3.1 Further Education

The respondents were asked if they had any form of further education, such as a degree, diploma, or other. The results are shown in Table 4.3.3.1.

Table 4.3.3.1 Further Education (N=337)

Tertiary Education	Frequency	%
None	205	60.8
Degree	34	10.1
Diploma	74	22.0
Other	24	7.1
Total	337	

132(39.2%) had some form of tertiary education. The "other" category included answers such as "pharmaceutical courses", "insurance certificate", "book keeping". 2 respondents wrote "didn't finish university".

4.4 Current Occupation of Respondents

The respondents were asked using an open ended question, to give their current occupation at the time of answering the questionnaire. These were then grouped as in the table below. Table 4.4 illustrates the various occupations of the study population.

Table 4.4 Occupation Group of Respondents (N=320)

Occupation Group	Frequency	%
Admin	119	37.2
Housewife	60	18.8
Retired	37	11.6
Medical	29	9.1
Finance	26	8.1
Education	24	7.5
Entrepreneur	24	7.5
Unemployed	1	0.3
Total	320	

Of the 337 respondents, 320 answered the question. This gives a response rate for this question of 94.9%.

From the above results, it can be seen that 37% (119) work in administrative positions, 18% (60) are housewives, and 11% (37) are retired.

4.5 Medical Aid

The respondents were asked if they had some form of medical insurance (being either Medical Aid, a hospital plan, or neither). As can be seen in Table 4.5, of those attending private practices, 73% (247) of respondents were on medical aid, and a further 5% (17) were on a hospital plan.

Table 4.5 Medical Aid (N=332)

Medical Aid	Frequency	%
Hospital Plan	17	5.1
No Medical	68	20.5
Medical Aid	247	74.4
Total	332	

Of the 337 respondents, 332 answered the question. This gives a response rate for this question of 98.5%

4.6 Women's Health

The respondents were asked a series of questions concerning women's health.

4.6.1 Menstruation

The respondents were asked if they still menstruate. The results are given in table 4.6.1.1.

Table 4.6.1.1 Menstruation (N=334)

Menstruation	Frequency	%
No	288	86.2
Yes	46	13.8
Total	334	

Of the 337 respondents, 334 answered the question. This gives a response rate for this question of 99.1%.

86.2% (288) of the respondents had ceased menstruation.

The respondents were then asked to give the reason for cessation of menstruation; the results are given in table 4.6.1.2.

Table 4.6.1.2 Reason for cessation of Menstruation (N=286)

Reason	Frequency	%
Surgery	171	59.8
Natural	92	32.2
Other	12	4.2
Injection	4	1.4
Do not know	4	1.4
Radiation	3	1.0
Total	286	

Of the 286 respondents answered the question, what is important to notice is that the reason given for cessation of menses is surgery in 59.8%.

4.6.2 Pap Smear

The respondents were asked if they had had a pap smear in the last 5 years. The results are given in Table 4.6.2.

Table 4.6.2 Pap smear (N=333)

Had a Pap Smear	Frequency	%
Do not know	7	2.1
No	140	42.0
Yes	186	55.9
Total	333	

Of the 337 respondents, 333 answered the question. This gives a response rate for this question of 98.8%.

From the above, it can be seen that 55% (186) had had a pap smear in the past 5 years.

4.6.3 HT Usage

The respondents were asked whether they had ever used HT.

The results are given in Table 4.6.3.

Table 4.6.3 HT Usage Ever (N=334)

Ever Used HT	Frequency	%
Do not know	8	2.4
No	177	53.0
Yes	149	44.6
Total	334	

Of the 337 respondents, 334 answered the question. This gives a response rate for this question of 99.1%.

44.6% (149) had used HT at some stage in their lives.

4.6.4 Reasons for not using HT

The respondents were asked to give their reasons for not using HT by means of an open-ended question. The results are given in Table 4.6.4 below.

Table 4.6.4 Reasons for not using HT (N=101)

Reasons why not used	Frequency	%
No Symptoms	62	61.3
Medical Reason	14	13.8
Perceived side effects from HT	14	13.8
Do not Know	6	5.9
Other	5	4.9
Total	101	

Of the 177 respondents who had never used HT, 101 answered the next question giving the reason why they had not used HT. This gives a response rate for this question of 57.0%.

Of the 101 respondents who answered the question, the most common reason given (61%, 62) was that they were asymptomatic. In 13% (14) a medical reason was given, for example clotting disorders, or heart disease. In 13% (14) the reason was because the patient had a perception of a side effect of HT, for example that it would make her gain weight.

4 of the "others", answered that, "they didn't know about HT" or had not heard about it" and 1 other wrote that "it was not available".

4.6.5 Reasons for using HT

If the respondents had answered 'yes' to using HT, they were then asked to give their reasons by means of an open ended question, and the responses were grouped together. The results are given in Table 4.6.5.

Table 4.6.5 Reasons for using HT (N=130)

Reasons why HT was used	Frequency	%
Hot Flushes	47	36.7
Other Menopausal Symptoms	25	19.2
After Hysterectomy	25	19.2
Dr's Recommendation	19	14.6
Other	14	10.7
Total	130	

Of the 149 respondents who had used HT, 130 answered the question. This gives a response rate for this question of 87.2%.

Of the 130 respondents who had used HT and answered the question, the main reason given for using HT was for symptom relief, the commonest being hot flushes,(36.7% 47), with 19.2% (25)being for other menopausal-related symptoms, for example, mood changes or genitourinary symptoms.

10.7%(14) were classified as "other" answers and these included answers such as "don't know", "ten years", "did not like myself", "2002", "30 years", "1980", "Diane for acne", "Dec 2008", "49".

4.6.6 Current HT Usage

Table 4.6.6 compares those who have used HT at some point in their lives with those who are currently using HT.

Table 4.6.6 Current HT Usage(N=337)

Those who have used HT and those still using HT	Frequency	%
Those who have used HT	149	44.2
Those still using HT	83	24.6

Table 4.6.6 shows that while 44% (149) have used HT at some time in their lives, those currently using HT is less at 24.6%.(83).

4.6.7 Which HT is being used

The respondents were then asked to state which form of HT they were currently using. The results can be seen below, in table 4.6.7.

Table 4.6.7 HT drugs being used (N=84)

HT drugs used	Frequency	%
Estrogen	53	63.1
Estrogen + Progesterone	19	22.6
Other	4	4.7
Alternative medication	8	9.5
Total	84	

Of the 149 respondents that have used HT, 84 answered the question as to which drug they used. This gives a response rate for this question of 56.3%.

The respondents were asked which HT they were using, and then gave trade names, for example Estrofem or Premarin. The researcher changed this to the active ingredient which was estrogen, progesterone or tiblone.

The 8 “alternative medication” included vitamins, Black Cohosh, and Evening of Primrose Oil.

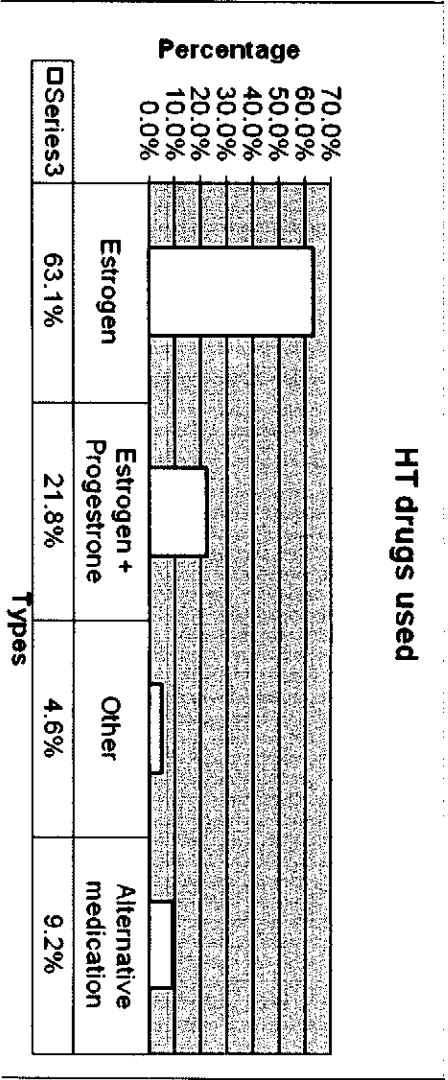


Figure 4.6.7 HT drugs used

4.6.8 Length of HT Usage

If the respondents were using HT, they were then asked how long they had been taking HT. The results can be found in Figure 4.6.8.

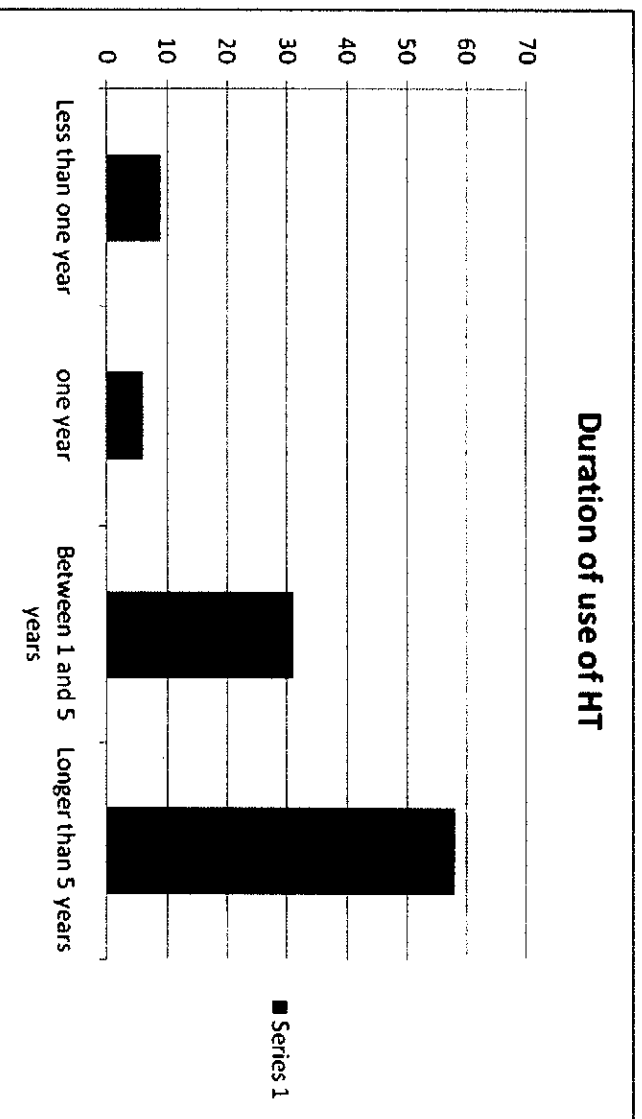


Figure 4.6.8 Length of time on HT (N=104)

Of the 149 respondents who had used HT, 104 answered the question about length of usage of HT. This gives a response rate for this question of 69.7%.

Of the 104 respondents who answered the question, it can be seen that 55.8% (58) have been using HT for longer than 5 years.

4.6.9 Length of time using HT before stopping

The respondents who had used HT, but were no longer using it, were then asked how long they had used HT before stopping. The results are given in Table 4.6.9 below.

Table 4.6.9 Length of time before stopping HT (N=64)

Time before stopping	Frequency	%
Less than 1 year	9	14.0
1 year	8	12.5
Between 1 and 5 years	19	29.7
Longer than 5 years	28	43.7
Total	64	

Of the 66 respondents who had used HT and stopped, 64 answered the question about duration of use. This gives a response rate for this question of 96.9%.

The majority of respondents (71% ,46) had used HT for longer than a year.

4.7 Natural or Homeopathic Remedies

Respondents were asked whether they had ever used natural remedies (CAM) for the treatment of menopausal symptoms. The results are shown in Table 4.7.

Table 4.7 Usage of Natural Remedies (N=326)

Use of Natural remedy	Frequency	%
Respondent has used natural remedies	79	24.2
Respondents that had NOT use natural remedies	247	75.7
Total	326	

247 (75.7%) of the respondents had not used natural remedies for the treatment of menopausal symptoms.

4.7.1 Which Natural Remedies are being used

Those who responded positively to using natural remedies for the use of menopausal symptoms, were asked an open-ended question about which remedies they had used.

The results have been tabulated in table 4.7.1.

Table 4.7.1 Other remedies (N=53)

Natural Remedies used	Frequency	%
Natural remedy	38	71.6
Vitamins	10	18.8
Medical	5	9.4
Total	53	

Of the 79 respondents who had used natural remedies, 53 answered the question about which remedy they had used. This gives a response rate for this question of 67.0%.

12% (10) indicated the use of vitamins, and 6% (5) had actually referred to the use of conventional HT. 48% (38) had used medications including, Bach flower, Evening of Primrose Oil, Femolene, Menoclove, and Menoclove Forte, Menograinine, Milk Thistle, Phyto soya, Starflower oil and St Johns wort.

4.8 Source of information about HT

Objective 3 of the study was to find out the source of the respondents' knowledge about HT. The question was asked in a tick box format. The results are tabulated below in Table 4.8.

Table 4.8 Source of information about HT (N=237)

Sources of information	Frequency	%
Doctor or Nurse	143	60.3
Magazines	81	34.1
Friends	51	21.5
Books	38	16.0
Pharmacy	25	10.5
Television	25	10.5
Relatives	24	10.1
Internet	21	8.8
Homeopath	14	5.9
Radio	10	4.2
Newspaper	6	2.5
Other	3	1.2

Of the 337 respondents, 237 answered the question. This gives a response rate for this question of 70.3%. Respondents could tick more than one box.

The important fact to note in this question, as shown in Table 4.17, is that 60% (143) of the respondents who answered the question indicated that doctors or nurses were the most significant source of their knowledge about HT. The least important source of information was radio and the newspaper.

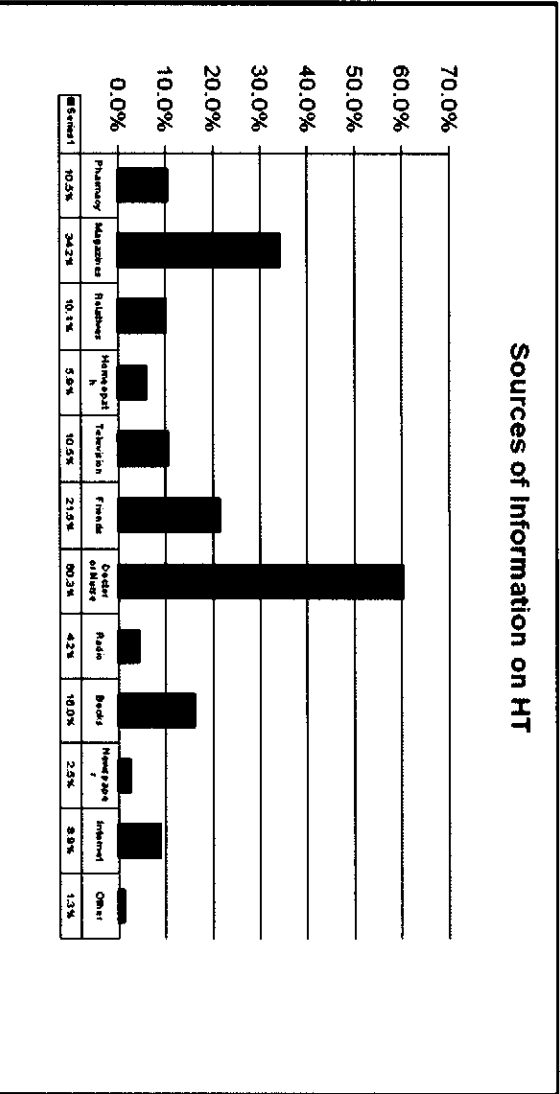


Figure 4.8 Sources of Information on HT

4.9 Consultation with GP

The respondents were asked if they had spoken to their GP about HT. The results can be found in Table 4.9.

Table 4.9 Consultation with GP (N=328)

Talked to GP about HT	Frequency	%
Yes	148	45.1
No	180	54.8
Total	328	

Of the 337 respondents, 328 answered the question. This gives a response rate for this question of 97.3%.

Table 4.9 shows that only 45.1%(148) of respondents had talked to their general practitioners about HT.

4.10 Consultation with another doctor e.g. gynecologist

The question asked if the respondents had talked about HT with another doctor e.g. gynecologist. The results can be found in table 4.10 below.

Table 4.10 Consultation with another doctor (N=327)

Talked to another doctor	Frequency	%
Yes	135	41.2
No	192	58.7
Total	327	

Of the 337 respondents, 327 answered the question. This gives a response rate for this question of 97.0%.

Of the 327 respondents who answered the question, 41.2% had talked to another doctor (e.g. gynecologist) about HT.

4.11 Benefits of HT

Objective 2 was to find out about respondents' knowledge of the benefits of HT. The question was asked in a tick box format. The results of this question are tabulated in table 4.11 below

Table 4.11 Benefits of HT (N=245)

BENEFITS of using HT	Frequency	%
Relieves hot flushes	217	88.5
Decreased night sweats	171	69.7
Better moods	139	56.7
Makes bones stronger	85	34.6
Prevents breast cancer*	24	9.7
Increases sex drive	24	9.7
Prevents bladder infections	18	7.3
Causes weight loss*	17	6.9
Others	6	2.4
Respondents that ticked at least 1 box	245	

* Indicates test answer that is incorrect, i.e.: This is not a benefit. These were added to prevent people from ticking all available answers.

Of the 337 respondents, 245 answered the question (ticked at least one box) This gives a response rate for this question of 72.7%.

217 respondents (88.5 %) indicated that HT relieves hot flushes and 34.6% (85) knew that HT makes bones stronger and 41% (139) are aware that HT improves mood, with a further 69.7% (171) aware that HT decreases the incidence of night sweats. In this study population the knowledge of the main benefits is good.

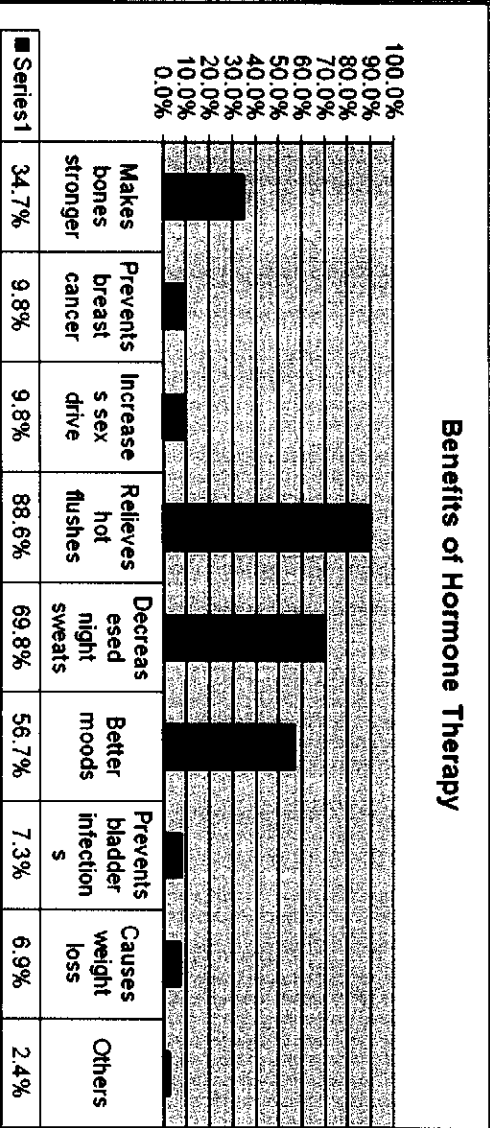


Figure 4.11 Benefits of Hormone Therapy

4.12 Side Effects of HT.

In an identical way the question was asked about side effects of HT. The following table, Table 4.12 shows the results of this question

Table 4.12 Side Effects of HT (N=212)

Side Effects of using HT	Frequency	%
Weight gain	112	52.8
Causes Breast cancer	77	36.3
Headaches	68	32.0
Breast Tenderness	59	27.8
Leg clots	50	23.5
Dry Vagina*	49	23.1
Hair loss*	33	15.5
Others	25	11.7
Irregular period	17	8.0
Skin problems*	14	6.6
Respondents ticked at least 1	212	

* Indicates test answer that is incorrect, i.e., These are not side effects. These were added to prevent people from ticking all available answers.

Of the 337 respondents, 212 answered the question (ticked at least one box). This gives a response rate for this question of 62.9%.

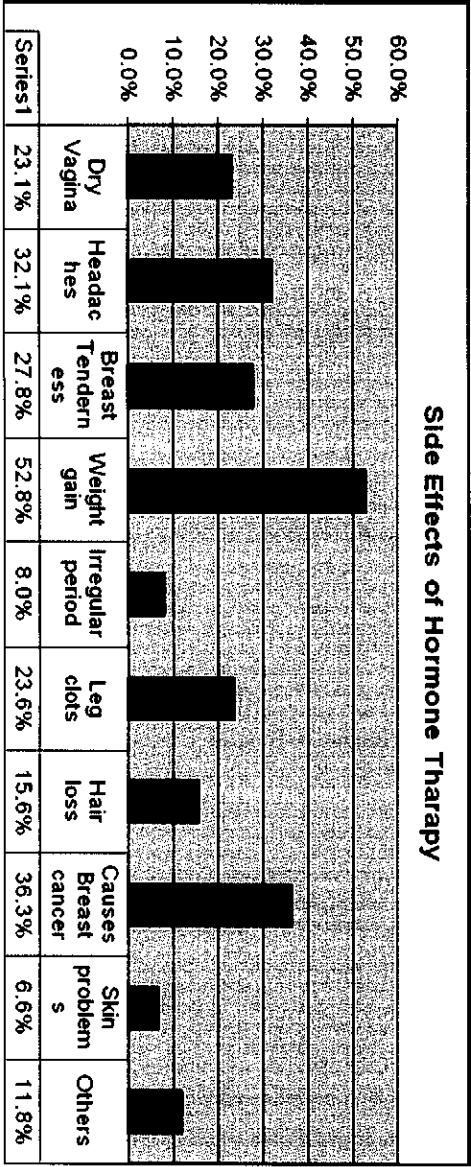


Figure 4.12 Side Effects of Hormone Therapy

4.13 Different age groups versus knowledge of HT

The following graph shows a comparison between different age groups versus knowledge about benefits of HT.

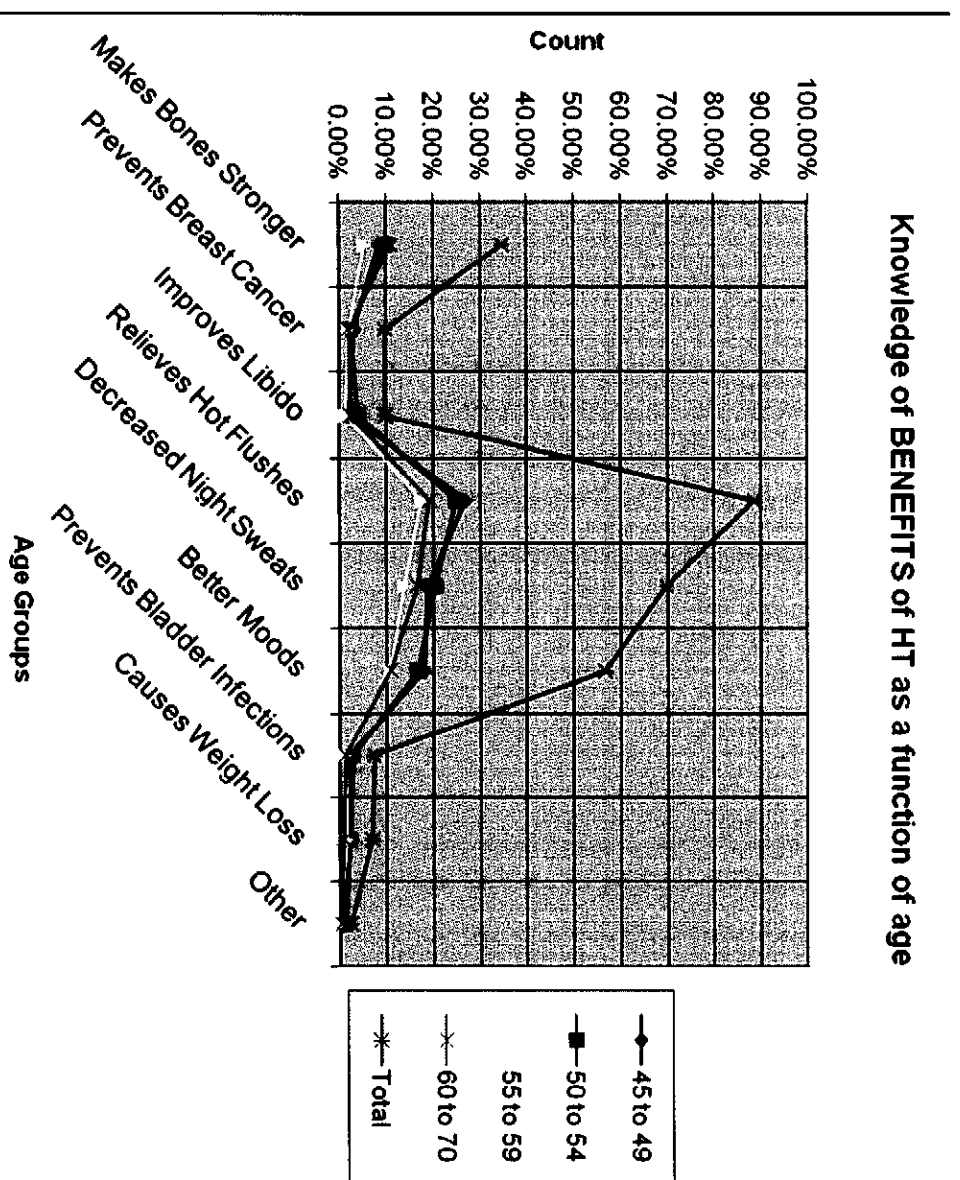


Figure 4.13.1 Knowledge of Benefits of HT as a function of age

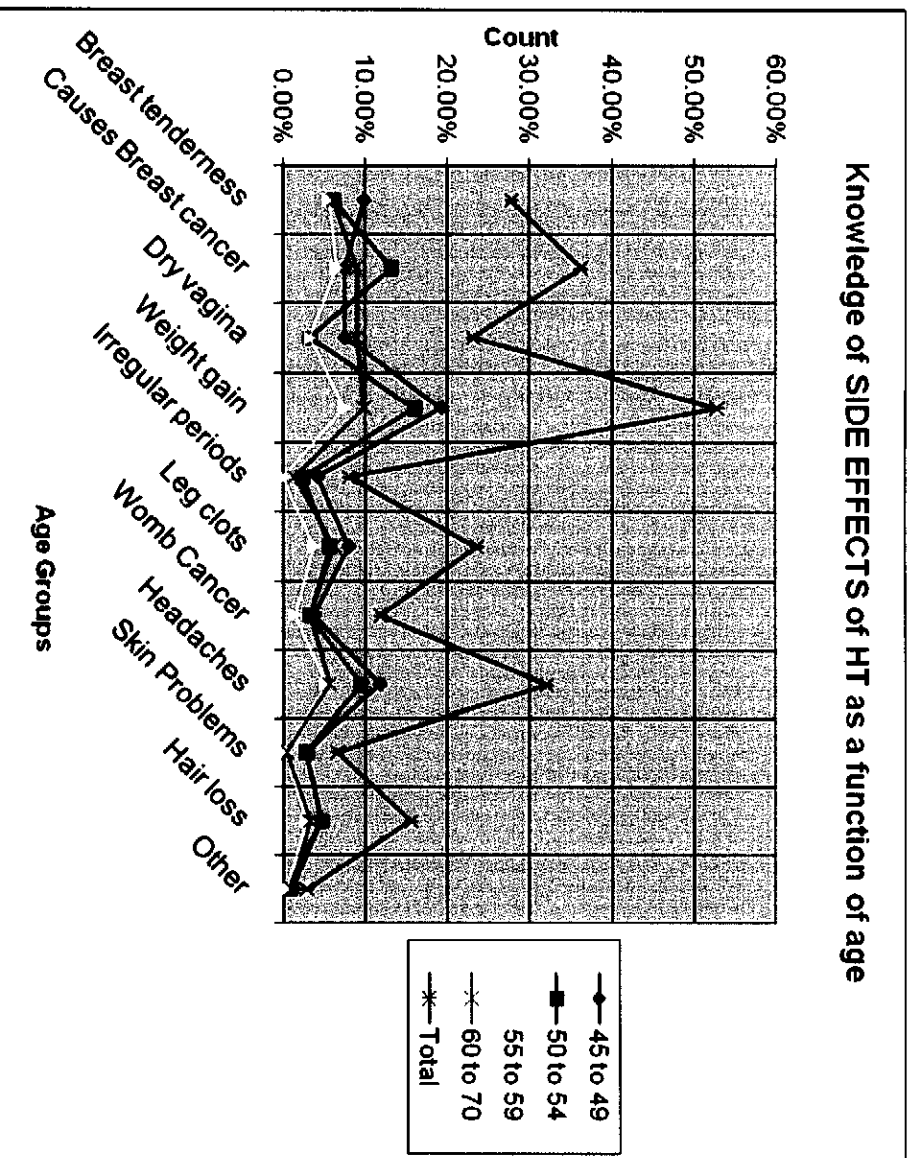


Figure 4.13.2 Knowledge of Side Effects of HT as a function of age

4.14 Further Data Analysis

For further cross tabulations to be done the following statistical manipulation was followed:

To ascertain whether the respondent had any knowledge of HT, benefits or side effects the following algorithm was used.

The respondent's answers were scrutinized. The correct answers were given one point, any incorrect answers were given minus 1 point. If the sum of the respondents knowledge was one or greater, then it was determined that the respondent had some knowledge of either benefits or side effects of HT.

245 respondents knew at least one or more benefits of HT, and 212 knew at least one or more side effects of HT. These were then used to see if significant differences occurred across different variables.

4.15 Knowledge of HT across some of the Independent Variables

The following table 4.15.1 shows the relationship between knowledge of benefits of HT across some of the independent variables.

Table 4.15.1 Table of Knowledge of Benefits of HT across some Independent variables

Independent Variable			Chi Square	P Value	Source
	+	-			
Peri-menopausal women (45-50 yrs) vs. menopausal & post menopausal(50-70 yrs)	+ 68	28	0.00	0.982	Question 1
	- 171	70			
Those who have an education beyond Grade 12	+ 91	41	0.45	0.251	Question 4
	- 144	55			
Those who are on a medical aid	+ 172	75	0.74	0.388	Question 6
	- 51	17			
Those who are still menstruating	+ 29	17	1.75	0.097	Question 7
	- 209	79			
Those that have had a pap smear(i.e. Gynecological check up)	+ 136	50	0.23	0.631	Question 9
	- 99	41			
Those who have used Hormone Therapy	+ 109	68	21.23	<0.001*	Question10
	- 126	23			
Those currently using Hormone Therapy	+ 75	9	4.49	0.019*	Question13
	- 52	16			
Those who have used natural remedies	+ 58	21	0.09	0.385	Question17
	- 177	70			
Those who have spoken to a GP about HT	+ 127	21	26.63	<0.001*	Question20
	- 108	72			
Those who have spoken to a gynecologist about HT.	+ 114	21	18.75	<0.001*	Question21
	- 120	72			

There is an association between knowledge of the benefits of HT and those who are using HT as well as those who have spoken to either a GP or a gynecologist. Marked with an *

Table 4.15.2 shows the relationship between knowledge of side of HT across some of the independent variables.

Table 4.15.2 Table of Knowledge of Side Effects of HT across some independent variables

Independent Variable			Chi Square	P Value	Source
	+	-			
Peri-menopausal women (45-50 yrs) vs. menopausal & post menopausal(50-70 yrs)	+ 57 - 127	39 114	1.24	0.266	Question 1
Those who have an education beyond Grade 12	+ 81 - 101	51 98	3.60	0.029*	Question 4
Those who are on a medical aid	+ 142 - 39	122 29	0.28	0.598	Question 6
Those who are still menstruating	+ 25 - 158	21 130	0.00	0.473	Question 7
Those that have had a pap smear(i.e. Gynecological check up)	+ 105 - 74	81 66	0.42	0.518	Question 9
Those who have used Hormone Therapy	+ 88 - 92	89 57	4.72	0.029*	Question 10
Those currently using Hormone Therapy	+ 50 - 45	34 23	0.70	0.203	Question 13
Those who have used natural remedies	+ 44 - 138	35 109	0.00	0.488	Question 17
Those who have spoken to a GP about HT	+ 91 - 89	57 91	4.75	0.014*	Question 20
Those who have spoken to a gynecologist about HT.	+ 87 - 94	48 98	7.69	0.002*	Question 21

There is an association between the knowledge of the side effects of HT and those who have an education above Grade 12, those using HT as well as those who have spoken to either a GP or another doctor, for example a gynecologist.

CHAPTER FIVE DISCUSSION

The aim of this study was to determine the knowledge and practice of HT amongst peri and post menopausal women in the southern suburbs of Johannesburg, where the researcher practices as a family doctor.

5.1 Response Rate

This study achieved a good response rate (80%), possibly indicating that this is still a relevant topic for women. It could also reflect an increase in willingness when asked by a person known to the respondent (in this case, their doctor's receptionist).

Most doctors that were approached agreed to be involved in the study, with only one refusal. Twenty-five doctors were approached to obtain 14 practices; the reasons for doctors not being included were administrative.

The questionnaire was completed to varying degrees, as shown in the results section. The demographic questions were completed by almost every respondent, as were the questions requiring a yes/no answer.

Questions that were open-ended had the poorest response rates. In the women's' health section, the question about which HT Therapy were being used was only answered by 56% of respondents. A similar response rate of 57% was obtained for the question asking why respondents had not used HT. A possible explanation for this reduced response rate might be that these questions were more complex and respondents were deterred by this.

One possible solution that would have improved the response rate for the question relating to which HT therapies were being used would be to give a list of the possible HT therapies on the market.

The response rates for the questions referring to knowledge of benefits of HT, and side effects of HT were 72% and 62% respectively. This is a reasonable response rate, although one cannot assume that those who did not answer the question knew nothing about the benefits and side effects of HT, it may be due to the design of the questionnaire, time constraints or other factors.

5.2 Demographics

In this study, no association was found between age, marital status and knowledge about HT. The researcher thought that marriage might be a factor, as at menopause, painful sexual intercourse, decreased libido might be a factor in causing a patient to acquire more knowledge about HT. There was no literature supporting this hypothesis and the researcher found no association between those who were married and those who were not.

Some studies²³ have shown that as a woman enters menopause, her attitude changes from a more negative view to a more positive one concerning HT usage. Lindh-Astrand,¹⁸ showed that women who were post-menopausal had a more positive attitude toward the general use of HT than peri-menopausal women.

The level of education in this population is high, with everyone obtaining at least Grade eight. In this study, there was no association between those who had education beyond Grade 12 and knowledge about benefits of HT ($p=0.251$), although there was an association between education and knowledge of side effects. ($p=0.029$). Maharaj²⁶ showed that a higher education level impacts positively on knowledge of menopause, although overall knowledge of specific issues relating to menopause and HT remained low in the educated group of his study as well. This could also be due (as said previously) to the young age group (18-40 years) of Maharaj's study. Akong²⁶ also showed low awareness of menopausal information and therapeutic options even among educated women, although women with better education are more likely to obtain information due to better access to resources.²

Although educated women are more aware of the existence of HT, the complex nature of HT treatments and the related controversies may contribute to the fact that HT utilization as a means of treating menopausal symptoms is still low.^{15,35}

Adequate knowledge and understanding of menopause and HT is necessary to enable women to engage in meaningful discussion and to ensure judicious use of HT.

This is an economically advantaged population group, with 80% of this population having access to medical aid. This is as expected, because the study was undertaken in a private health care setting. 20% are still choosing to use private health care despite not being on a medical aid. This could reflect a lack of confidence or distrust in the public health system, and

could be the subject of further research. There was no association between knowledge of benefits and side effects of HT and those on medical aid.

5.3 Women's Health

Respondents were asked whether they had had a pap smear in the past 5 years. This question indicates contact with the health system, specifically where questions relating to women's health would be more easily raised. 42% had not had a pap smear in the last 5 years, indicating possible missed opportunities for a discussion on menopausal issues. One possible reason for the low rate of pap smears could be due to the fact that many of the women (59%) had had a hysterectomy. In this study, there was no association between knowledge of HT and those who had or had not had a gynaecological checkup. The gynaecological check up, whether done by a GP, gynaecologist, or primary care nurse is an important opportunity for education about menopause and treatment options.

Regarding onset of menopause, only 32% had gone through natural menopause, with 59% having had surgery.

The researcher attempted to find out the prevalence rate of hysterectomy for South Africa, but no statistics were available. In South Australia,³⁶ reported a 27.9% hysterectomy rate, which was obtained from a cluster sample of 4608 households in metropolitan and rural South Australia. In a study of 17735 participants, in Ireland, it was found that the prevalence of hysterectomy was 22.2%.³⁷

In this study the hysterectomy rate is 59%, which could be further researched, to see if this is due to true disease prevalence or the hysterectomy rate may be due to over servicing of women not necessarily menopausal women, as we did not establish when these hysterectomies were done.

5.4 Usage of HT in this study

HT has significant benefits in post-menopausal women, yet rates of HT usage are low. In this study the current usage was 25% with an ever user rate of 42%. This is more in comparison to the developed countries (USA and Europe),⁹ than in the underdeveloped world (Karachi,²

Ecuador²³ and South Africa's rural populations¹⁶), where lack of knowledge about menopause and the availability of HT was exceedingly low (with the exception of Bangkok³¹).

Even though this population is a well educated, well resourced middle class population the level of HT usage is low. Malik² suggests that knowledge of HT is a key predictor of HT use. The issues around HT usage are complex, and the average woman, even though she may be socioeconomically advantaged and educated, still struggles with the complexities. Lack of awareness about long term implications of menopause among women may result in low HT usage. Another reason for not having adequate knowledge and therefore not using HT is due to inadequate advice from their health care providers, which will be discussed further.

Of those who had not used HT, the most common reason given was that the respondents were asymptomatic. In Leon-Leon's²³ study in Ecuador, 49% of women also responded that the reason they did not use HT was that they were asymptomatic, yet Guidozi³ and Fredericks¹⁶ both reported that up to 80% of women will experience menopausal symptoms that can be treated very adequately with HT.

In this study, those who used HT, 55.9% of the respondents used HT for menopausal symptoms. 15% gave doctors recommendation as a reason for use and a further 19% said they used it after hysterectomy, (which is probably due to a doctor's recommendation).

Regarding length of time of HT usage, 55.8% of those using HT had been using HT for more than 5 years. For those who had stopped, 43% had used HT for more than five years. The reason why respondents had stopped using HT was not asked. It would have been interesting to see if the stoppage was due to the influence on doctors by the publication of the WHI study, or due to patients experiencing side effects from HT, for example breast tenderness, weight gain, or nausea. Another possible reason may be the respondents' age.

The most frequent form of HT used is estrogen alone. This is in keeping with the fact that 59% respondents have had a hysterectomy and therefore only require estrogen.

5.5 Use of Complementary or Alternative Remedies (CAM)

24% of respondents have used CAM for HT. In this study no association was found between those who had, or were using CAM and knowledge of benefits and side effects of HT.

This is an opportunity for the doctor to enter into discussions with patients about their perceptions of menopause and the different treatment options. Patching van der Sluijs³³ showed in her study that a significant proportion of respondents may be using CAM products in conjunction with conventional HT, most often without consultation. It is therefore important that health care providers ask about the use of CAM products as part of their routine assessment. She noted in her study that health care providers only asked about CAM use in 25% of cases. With the concurrent use of CAM and other pharmaceutical drugs, the potential for drug-herb interactions becomes a possibility, and monitoring of drug and CAM use should be an important aspect of ongoing patient care. Doctors also need to be aware of the various CAM's on the market, as well as the research into efficacy as well as potential side effects. For example, Black Cohosh is used extensively in Germany for hot flushes. However results of RCT's are mixed and there is concern over liver problems.³⁸

Articles and information about the use of CAMs for menopausal symptoms are appearing more regularly in the various forms of the media, possibly causing increased awareness. There is also a perception among the public that natural products do not have side effects.³⁹

5.6 Source of Knowledge about HT

In this study, when asked which source of information was the most helpful, 60% of those who answered the question said that doctors and nurses were. Magazines(34%) and friends(21%) were considered the next most helpful. Least helpful was the radio and the newspaper(2.6%). This highlights again how important it is for doctors and other health care providers to provide adequate evidence based information so that their patients can make informed choices. Leon²³ also found a similar finding that physicians were the main source of information about HT.

However, Maharj²⁶ in his study found most women had received their knowledge from family (52%) and friends (44%), and Baig²⁷ also found that in Pakistan, source of knowledge was from relatives (35%) and friends/neighbours (34%) with health-care providers in only 14% of respondents.

Hoffman¹² showed in his study that the media was a more frequent source of information than health care personnel. His study sample was from a postal questionnaire to all women 53-54 years of age in a Swedish community, whereas the researcher's study was conducted on

patients sitting in their doctor's waiting rooms, which then could introduce bias, because these patients are already utilizing conventional medicine, which might suggest that they would be more open to information from the medical profession than another set of respondents.

5.7 Discussions with Doctors about HT

The most important finding in this study is that although only 45% and 41% had spoken to a GP or gynaecologist respectively, those who had consulted a doctor had more knowledge about HT than any other group. ($p < 0.001$).

Other studies^{25,26} have also showed that patients are not discussing menopause or HT with their doctors.

The population of this study is a well-educated, well-resourced, majority married (66%), stable group who have medical aid. Well-educated women may be more likely to read articles about HT, have more substantial discussions with their doctors about the risks and benefits of using HT and thus seek treatment.²⁵ Yet, in this study less than half had discussed HT with either their GP or their gynecologist, although when asked about source of knowledge, 60% still gave health care providers as the most helpful source. This may be due to misunderstanding the questionnaires, or due to the fact that they are already in a doctor's office, thereby introducing bias.

Family doctors need to be aware of the importance of providing adequate (up to date, evidenced based knowledge) information about HT. This is especially important in this age of information, as medical information is more readily available, and is easily misunderstood. In previous studies, Maharaj²⁶ showed that women received little information from health care providers, and Lindh-Astrand¹⁸ showed that whereas women's attitudes towards menopause had not changed (over the turn of the century), women's attitudes towards HT had changed negatively and this apprehension was made worse by health care providers' apprehension of the risk benefit balance of HT. Health care providers need to be up to date with the issues and controversies surrounding HT. The benefit and risk profile of HT varies greatly depending on the timing of its initiation, the kind of estrogen or progesterone used and their route of administration and dosing, and who better to advise patients than well-informed, trusted family doctors?

According to Malik² and others²⁵ 75% of non users would consider using HT if recommended by their doctors.

It is important that health care providers understand women's attitudes and expectations regarding menopause and HT, in order to give optimal information and support to the individual woman.

In this study there was an association ($p < 0.001$) between those who had discussed HT with a doctor and knowledge about HT.

5.8 Knowledge of Benefits and Side Effects of HT

Although 100 respondents out of the total sample of 337 did not answer the question about benefits of HT, and 125 respondents out of the total sample of 337 did not answer the question about side effects, the knowledge presented is still reasonable.

Of those who answered the question, 88.5% knew that HT relieves hot flushes, 69.7% were aware that HT decreases the incidence of night sweats, there was also 41% also knew about mood swings and 34.6% knew about the prevention of osteoporosis. It can be concluded that, overall patients are aware of the benefits of HT.

The most common side effect of HT noted was weight gain; with 52.8% identifying this side effect. Breast cancer risk was also reported in 36.3%. Both of these side effects are perceived side effects, rather than based on evidence. As has been discussed in the literature review, the risk of breast cancer is negligible in the first five years of HT usage,²⁰ and the Cochrane Library review shows that HT has no effect on body weight.³⁹ Today, women are very weight conscious, and although the perceived weight gain is small, many patients would rather struggle with major menopausal symptoms than risk weight gain. The review of trials found no evidence that HT will have an effect on body weight additional to that normally gained at the time of menopause. The review also did not find any evidence that HT prevents weight gain experienced at menopause. This is an issue that the family doctor needs to discuss with the individual patient, ie that weight gain at the time of menopause is normal and will not be affected by the usage of HT.

This population is aware of some of the benefits and side effects of HT, and this enables the doctor or health care provider to engage in discussions about personal benefits and the risks of

HT and thus offer treatment in the form of HT if it is appropriate. Lack of awareness about the long term implications of menopause among women may add to the low HT usage rate. A limitation of this study was that knowledge about menopause itself was assumed, and the study would have been strengthened if questions about menopause had been included.

Patients did know about benefits of HT with the greatest knowledge being for the most common problems experienced by menopausal women, namely hot flushes, night sweats, mood improvement and prevention of osteoporosis.

5.9 Limitations of and bias of the Study

- 1) The study population assumes a certain level of socioeconomic status, as the study was carried out in private practice settings with the majority of patients on medical aids, and therefore this study cannot be generalized to include other population groups in South Africa.
- 2) This study was to determine knowledge and practice about HT, and not menopause itself. Perhaps a study focused on menopause itself should have preceded this study. However, it is the researcher's impression from discussions with her patients that patients are aware of the issues of menopause, after this study; however, the researcher came to the realization that they are probably not as informed as expected.
- 3) Obtaining data from a questionnaire is limited. After the study was completed, the researcher was aware that certain questions could have been asked in a clearer format, or that possibly a qualitative study design would have given more complete answers, especially regarding the high hysterectomy rate.

CHAPTER SIX RECOMMENDATIONS & CONCLUSION

6.1 Recommendations

- 1) Information imparted by doctors to their patients is highly valued by their patients and doctors need to be aware of this. Therefore, doctors need to be up to date with the latest guidelines, and they need to be able to enter into meaningful discussions with their patients so that they can assist women to make appropriate decisions about HT. Doctors also need to be aware of the alternative medications that are available, and evidence of efficacy, in order to enter into to be able to enter into meaningful discussions with patients.
- 2) Doctors need to be aware that less than 50% of patients are having discussions about menopause and HT with their GPs or other doctors, and that the responsibility should be on the doctor to initiate the discussion. According to Stott's model of the consultation, the consultative process should include not only attention to the presenting problem, but also to health promotion and the modification of health seeking behavior. Family doctors should initiate discussions about menopause for women above the age of 45 years.
- 3) **E**ducation strategies for health care workers, for example, workshops, lectures and CMEs are necessary for doctors working in the community. Academic departments and academic societies have a role to play in promoting consensus opinions where controversies still exist, so that doctors can fulfill the first recommendation
- 4) Further research into the prevalence of hysterectomy in South Africa needs to be documented. The reasons for the hysterectomy prevalence rate in this population could be explored in a further study.
- 5) To obtain a deeper understanding of women's attitudes toward and knowledge about HT, a qualitative approach could be useful as a complement to quantitative studies.

6.2 Conclusion

This study documented the demographics of the patients that the researcher and other doctors in her geographical area see. The study also documented the usage of HT in the population studied. Only 40% of the patients are talking to their doctors about HT, and yet the patients who have talked to their doctors know significantly more about the benefits and side effects of HT than those who have not. Women's knowledge about HT was found to be reasonable with regard to hot flushes, night sweats and osteoporosis.

24% of the respondents have used natural remedies, and doctors need to be aware of this and ask patients about CAM usage, not only for menopausal symptoms, but in relation to any CAM medication, for example the use of St John's wort for depression.

Better health education about menopause and the use of HT is needed regarding the short term management of symptoms and the long term risks associated with menopause. This should be from health care providers as well as the various forms of the media so that women can make informed health decisions, which may result in improvement in quality of life in both the short and long term.

Appendices

Appendix 1 Ethics clearance

Appendix 2 Doctors Consent Letter

Appendix 3 Patient information letter

Appendix 5 Questionnaire

Appendix 1 Ethics clearance

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

Division of the Deputy Registrar (Research)

HUMAN RESEARCH ETHICS COMMITTEE (MEDICAL) R 14/49 Plant

CLEARANCE CERTIFICATE

PROTOCOL NUMBER M060809

PROJECT

The Knowledge and Practice of
Pre and Post Menopausal Women
in the Southern Suburbs of JHB....

INVESTIGATORS

Dr CM Plant

DEPARTMENT

Dept of Family Medicine

DATE CONSIDERED

06.08.25

DECISION OF THE COMMITTEE* (issued)

Approved unconditionally (Duplicate certificate

Unless otherwise specified this ethical clearance is valid for 5 years and may be renewed upon application.

DATE 06.08.28

CHAIRPERSON

(Professor P E Cleaton Jones)

*Guidelines for written 'informed consent' attached where applicable

cc: Supervisor : Dr A Wright

DECLARATION OF INVESTIGATOR(S)

I/We have completed in duplicate and **ONE COPY** returned to the Secretary at Room 10005, 10th Floor, Senate House, University.
I/We fully understand the conditions under which I am/we are authorized to carry out the above-mentioned research and I/we guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to resubmit the protocol to the Committee. **I agree to a completion of a yearly progress report.**

PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES

(Signature)

Appendix 2 Doctors Consent Letter

Information letter for Doctors:

Dear doctor,

I am a doctor working in private GP practice. I am studying for a master's degree in Family Medicine. For this degree I am conducting a research project about patients' knowledge, and practice about Hormone Therapy for the treatment of menopausal symptoms.

Your practice has been randomly selected to participate in this study from a list of doctors listed in the Netcare Directory for Mulbarton hospital.

As discussed over the telephone, the participation of your practice is voluntary. I will be liaising with your receptionists and explaining in detail about the questionnaire. Patients' personal information will be anonymous and confidential.

The questionnaire that I am asking the patient's to complete is attached for your perusal. This may generate standard questions from your patients about HT.

If you agree to your practice being involved in the study, please sign at the bottom of this page giving consent for this.

When completed, I will make the results of this study available to you on request. If you have any questions about Hormone Therapy or any aspect of the research please do not hesitate to contact me directly.

Thank you for your time and assistance.

Dr Christine Plant

011 435 0302 / 082 921 15 64.

Human Research Ethics Committee: 011 717 1234.

Practice Details:

Address: _____

Name: _____ Date: _____

Signature: _____

Appendix 3 Patient information letter

Dear Patient,

I am a 49 year old female doctor, working in private GP practice. I am also studying at the University of the Witwatersrand completing a master's degree in Family Medicine. Part of the studying involves doing a research project. I am conducting a study about Hormone Replacement Therapy in women aged 45 years and older. Hormone Replacement Therapy refers to the use of the female hormones for the treatment of menopausal symptoms in women. This can be estrogen alone or estrogen with progesterone. More recently the term Hormone Therapy is used instead. With the results of this study, as doctors we may have a better understanding of women's needs and can respond more appropriately to you as a patient.

If you are a woman aged between 45 and 70 years and would like to participate in the study please complete the enclosed questionnaire and place in the box provided. You will not lose your place, or have to wait longer to see your doctor. The questionnaire is quite short and should not take long to complete. The questionnaire cannot be taken home or completed after seeing the doctor.

You are assured that all the information is confidential and anonymous. This means that your name is not required and that I cannot identify you from the questionnaire. If you have decided to participate and feel uncomfortable about any of the questions asked, please feel free to leave it out and go on to the next question.

Should you not wish to participate (but I do hope that you will) please fold the questionnaire and place in the box provided. Please note that your care in this practice will not be affected if you do not wish to participate.

If you have any questions about Hormone Therapy after completing the questionnaire please do not hesitate to discuss them with your doctor or collect a pamphlet from the receptionist.

The results of this study, when completed, will be made available to you by your doctor on request.

Thank you for your time and assistance.

Dr Christine Plant

011 435 0302 / 0829211564

Human Research Ethics Committee: 011 717 1234

Appendix 5 Questionnaire

This questionnaire is all about Hormone Therapy (HT). You might have heard it referred to as Hormone Replacement Therapy.

The first few questions will tell me something about who you are.

1) How old are you? _____

2) Are you (tick appropriate box)

Married	Single	Widowed	Divorced	Other
---------	--------	---------	----------	-------

Other (please explain) _____

3) What was the last grade/standard you passed at school?

Grade 8 Std 6	Grade 9 Std 7	Grade 10 Std 8	Grade 11 Std 9	Grade 12 Std 10	Other
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Other (please explain) _____

4) Do you have any further education? (tick appropriate box)

☐ No

☐ Yes (Please specify) _____

☐ Diploma specify _____

☐ Degree specify _____

☐ Other (please explain) _____

5) What is your current occupation?

Please state _____

6) Do you have a medical aid?

☐ Yes ☐ No ☐ Hospital Plan

In the next part of the questionnaire I will be asking questions about women's health.

7) Do you still get your periods?

☐ Yes ☐ No

8) If NO did your periods stop:

☐ naturally

☐ Due to surgery (for example a hysterectomy [removal of the womb])

☐ Due to radiation or chemotherapy

☐ Due to an injectable contraceptive

☐ Other. Please explain _____

☐ Unknown

9) Have you had a pap smear in the last 5 years?

☐ Yes ☐ No ☐ Don't know

10) Have you EVER used Hormone Therapy?

☐ Yes ☐ No ☐ Don't know

11) If NO Please explain why you have not used Hormone Therapy _____

If you answered NO to question 10 GO TO question 17

12) If YES, Please explain why you started using it? _____

13) Are you CURRENTLY using Hormone Therapy?

☐ Yes ☐ No

14) If YES Which one are you using? _____

15) How Long have you been using Hormone Therapy?

Less than one year	1 year	1 to 5 years	More than 5 years
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16) If you stopped using Hormone Therapy.

a) How long did you take Hormone Therapy before stopping

Less than one year	1 year	1 to 5 years	More than 5 years
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b) Why did you stop using Hormone Therapy?

Please explain

17) Have you ever used a natural remedy, eg. Black Cohosh, vitamins, etc. for symptoms of menopause? eg. hot flushes, depression, etc.

☐ Yes ☐ No

18) If YES which have you used? (You can name more than one)

19) Which of the following has been helpful in telling you about Hormone Therapy?

You can tick more than one box.

<input type="checkbox"/> Pharmacy	<input type="checkbox"/> Homeopath	<input type="checkbox"/> Doctor or Nurse	<input type="checkbox"/> Newspaper
<input type="checkbox"/> Magazines	<input type="checkbox"/> Television	<input type="checkbox"/> Radio	<input type="checkbox"/> Internet
<input type="checkbox"/> Relatives	<input type="checkbox"/> Friends	<input type="checkbox"/> Books	

☐ Other (please explain)

20) Have you ever talked about Hormone Therapy with your GP?

☐ Yes ☐ No

21) Have you ever talked about Hormone Therapy with another doctor eg. a gynaecologist?

☐ Yes ☐ No

22) What do you think are the benefits of using Hormone Therapy?

You can tick more than one box.

<input type="checkbox"/> Makes your bones stronger	<input type="checkbox"/> Decreased night sweats
<input type="checkbox"/> Prevents Breast Cancer	<input type="checkbox"/> Better moods
<input type="checkbox"/> Increases sex drive	<input type="checkbox"/> Prevents bladder infections
<input type="checkbox"/> Relieves hot flushes	<input type="checkbox"/> Causes weight loss
<input type="checkbox"/> Other	

23) What do you think are the side effects of Hormone Therapy?

You can tick more than one box.

<input type="checkbox"/> Dry vagina	<input type="checkbox"/> Leg clots
<input type="checkbox"/> Headaches	<input type="checkbox"/> Hair loss
<input type="checkbox"/> Breast tenderness	<input type="checkbox"/> Causes Breast Cancer
<input type="checkbox"/> Weight gain	<input type="checkbox"/> Skin problems
<input type="checkbox"/> Irregular periods	<input type="checkbox"/> Womb Cancer
<input type="checkbox"/> Other	

Thank you for taking the time to answer the questions.

If this questionnaire has generated questions for you, please feel free to ask your doctor.

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