

## Women's Knowledge, Perception and Acceptability Towards Hormone Replacement Therapy (Prior to the Women's Health Initiative Study Finding) — The SGH Climacteric Clinic Experience\*

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### ABSTRACT

**Background.** The purpose of this study was to examine women's knowledge, perception and acceptability towards hormone replacement therapy and the reasons for continuing HRT.

**Methods.** A descriptive study on 203 subjects who attended a specialist climacteric clinic was conducted using a structured questionnaire and face-to-face interviews.

**Results.** Indian and Malay were under-represented in our study population when compared to their proportions in the general population. The most common source of information about HRT was the gynaecologist in the climacteric clinic. Ninety percent of subjects had discussed HRT with the gynaecologist and were aware of the benefits and risks of HRT. Women believed the benefits to be prevention of osteoporosis and to improve their quality of life. The recently discovered benefits of HRT, such as reduced risk of colon cancer, were only known to a small group. Subjects considered cancer as the major risk of HRT. Hence, the fear of developing breast cancer was a major obstacle to them continuing HRT.

**Conclusion.** Proper counselling by doctors and nurses should dispel patients' fears about HRT, thus enhancing compliance and reassurances for those on HRT. Every woman should know the risks and benefits of HRT and ultimately make her own decision with regards to commencing or continuing HRT.

Keywords: breast cancer, cancer, hormone replacement therapy, menopause

### INTRODUCTION

Menopause is viewed as a chronic deficiency disease with potentially serious consequences, a "natural" self-limiting bodily change and a socially constructed and culturally specific phenomenon.<sup>1-3</sup> Menopause is associated with symptoms of oestrogen deficiency in women, which occurs when ovaries stop producing the two female hormones, oestrogen and progesterone. Usually, menopause occurs in women between the ages of 45 and 55 but it can also occur when the ovaries have been surgically removed.

Menopause may be extremely debilitating and can seriously reduce the quality of life. Many menopausal women also manifest vasomotor symptoms. Furthermore, the increased risks of cardiovascular disease and osteoporosis have important implications for an ageing population.

Menopause and its management by hormone replacement therapy (HRT) are areas of controversy. The HRT is usually prescribed to menopausal women to replace the loss of oestrogen. The benefits of HRT are well recognised in both the short and long term usages. The short-term goal is the alleviation of vasomotor symptoms, such as hot flushes whereas the long-term benefit is protection against cardiovascular and skeletal disease symptoms. Recent evidence also shows that it may delay the onset and reduce the risk

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of Alzheimer's disease.<sup>4</sup> This is a very important new potential benefit of HRT.

While HRT has many potential benefits for many menopausal and post-menopausal women, it also has some drawbacks. Some of the known or suspected risks are breast cancer, deep vein thrombosis and side effects such as breast tenderness and bloatedness. Menopausal women are reluctant to take HRT because of the possible increased risk of developing breast cancer. Hunter *et al* reported that low compliance is associated with fear of cancer, weight gain and reluctance to have menstrual bleeding while on HRT.<sup>5</sup>

Compliance with HRT has been extensively studied in Western countries, whereas little data is available on women in Asian countries.<sup>6</sup> In a retrospective study done in Hong Kong, Chung *et al* found that about 9% of women stopped taking HRT on their doctor's advice as they did not need the treatment, while 6.5% of women discontinued HRT because of fear of developing breast cancer.<sup>6</sup>

Hence, this study aimed to establish the prevalence of HRT usages in menopausal women in our local population. Since the perceptions towards HRT have varied over time,<sup>7</sup> this study also examined women's knowledge and expectations with regard to HRT at the present time. The reason for continuing and discontinuing HRT were also investigated.

## METHODS

A descriptive study on 203 women attending the Climacteric Clinic at the Obstetric and Gynecology Center, Singapore General Hospital for treatment of the menopause was carried out from 1 August 2001 to 28 February 2002.

A random sample of women aged between 40 to 70 years was recruited during clinical sessions. The selection of subjects was done prior to or after a patient had consultation with the gynaecologist. The researcher approached 10 subjects randomly on 2 consecutive days of clinic sessions in a week. A face-to-face interview was carried out after verbal consent had been obtained. Each interview, lasting about 30 minutes, was conducted in a designated counselling room.

The questionnaire was designed to evaluate the subjects' knowledge, perceptions and acceptability towards HRT. Subjects were asked about their demographic data, menopause status, current and past experience of HRT and their attitude towards the therapy including perceived risks and benefits. The reasons for continuing or discontinuing HRT were also included in the questionnaire.

Table 1. Demographic data of the subjects.

Demographics	N (%)
<b>Race</b>	
Chinese	178 (87.7%)
Malay	12 (5.9%)
Indian	9 (4.4%)
Others	4 (2.0%)
<b>Age Group</b>	
Less 40 years old	1 (0.5%)
40–50 years old	30 (14.8%)
50–60 years old	133 (65.5%)
60–70 years old	35 (17.2%)
Above 70 years old	4 (2.0%)
<b>Marital Status</b>	
Married	166 (81.8%)
Single	24 (11.8%)
Widowed/Divorced	13 (6.4%)
Others	0 (0.0%)
<b>Education level</b>	
None	11 (5.4%)
Primary	43 (21.2%)
Secondary	106 (52.2%)
Tertiary	39 (19.2%)
Others	4 (2.0%)
<b>Occupation</b>	
Working	101 (49.8%)
Housewife	53 (26.1%)
Retired	45 (22.2%)
Unemployed	4 (2.0%)
<b>Income</b>	
None	87 (42.9%)
<\$1 500	32 (15.8%)
\$1 500 – 2 500	39 (19.2%)
Above \$2 500	45 (22.2%)

All statistical analyses were carried out using SPSS (version 8.0). Associations between categorical variables were assessed using Chi-square or Fisher's exact tests. Normality test was carried out for the continuous variables. Two-sample t-test was performed if the normal distribution assumption was satisfied, otherwise Mann Whitney U test was used. Statistical significance was assumed if  $p < 0.05$ .

## RESULTS

### Demographics

Of the 203 subjects, 87.7% were Chinese, 5.9% Malay, 4.4% Indian while 2.0% were of other races (Table 1). The majority of the subjects (65.5%) were aged between 50 to 60 years old and about 82% were married. Approximately 73% of the subjects had at least secondary school education. About one-half of the subjects (49.8%) were employed, of whom 59% had a monthly income of less than \$1 500.

Table 2. Menopausal status of the subjects.

Menopausal status	N	Percentage % (95% CI)
Periods ceased completely	134	66.0 (59.0, 72.5)
Periods ceased completely due to surgery	50	25.1 (19.3, 31.7)
Perimenopausal (infrequent periods)	20	9.9 (6.2, 14.9)
Regular periods	2	1.0 (0.1, 3.6)

Table 3. Sources of information on HRT.

Source	N	Percentage % (95% CI)
Doctor from this clinic	157	77.3 (71.0, 82.9)
Magazine	54	26.6 (20.7, 33.2)
Friends	38	18.7 (13.6, 24.8)
General practice	27	13.3 (9.0, 18.8)
Other doctor	22	10.9 (7.0, 16.0)
Television/Radio program	13	6.4 (3.5, 10.8)
Family member	8	3.9 (1.7, 7.6)
Internet	5	2.5 (0.8, 5.7)
Other nurses	5	2.5 (0.8, 5.7)
Others	5	2.5 (0.8, 5.7)
Nurse from this clinic	1	0.5 (0.0, 2.7)

Table 4. Perceived benefits of HRT.

Benefit	N	Percentage % (95% CI)
Prevent osteoporosis	140	69.0 (62.1, 75.3)
Relieve hot flushes	127	62.9 (55.8, 69.5)
Relieve mood changes	86	42.4 (35.5, 49.5)
Prevent heart disease	71	35.0 (28.4, 42.0)
More energy	61	30.0 (23.8, 36.9)
Improve sex life	52	25.6 (19.8, 32.2)
Relieve stress	28	13.8 (9.4, 19.3)
Improving memory	27	13.3 (9.0, 18.8)
Prevent Alzheimer's	13	6.4 (3.5, 10.8)
Reduce risk of colon cancer	10	4.9 (2.4, 8.9)
Other benefits	6	3.0 (1.1, 6.3)

Table 5. Perceived risks of HRT.

Risk	N	Percentage % (95% CI)
Cancer	168	82.8 (76.8, 87.7)
Heart disease	15	7.4 (4.2, 11.9)
Hypertension	12	5.9 (3.1, 10.1)
Blood clots	10	4.9 (2.4, 8.9)
Stroke	6	3.0 (1.1, 6.3)
None	32	15.8 (11.0, 21.5)

Table 6. Reasons for continuing HRT.

Reason	N	Percentage % (95% CI)
Prevent osteoporosis	111	54.7 (47.6, 61.7)
Improve quality of life	104	51.2 (44.1, 58.3)
Symptom relief	91	44.8 (37.9, 51.9)
Cardiac protection	39	19.2 (14.0, 25.3)
After surgery	26	12.9 (8.6, 18.3)
Excessive tiredness	19	9.4 (5.7, 14.2)
Inability to concentrate	16	7.9 (4.6, 12.5)
Quick temper	13	6.4 (3.5, 10.7)
Stop menstruation	4	2.0 (0.5, 5.0)

Table 7. Reasons for discontinuing HRT.

Reason	N	Percentage % (95% CI)
Fear of developing cancer	24	11.8 (7.7, 17.1)
On advice of doctor	19	9.4 (5.7, 14.2)
On advice of family/ friends	5	2.5 (0.8, 5.7)
Side effects:		
Breast tenderness	2	1.0 (0.1, 3.5)
Headache	4	2.0 (0.5, 5.0)
Abdominal pain	3	1.5 (0.3, 4.3)
Irregular vaginal bleeding	3	1.5 (0.3, 4.3)
Poor relief of vasomotor symptom	3	1.5 (0.3, 4.3)
Concern about weight gain	6	3.0 (1.1, 6.4)

### **Menopausal Status**

Out of 134 subjects whose period had ceased completely, 50 had undergone hysterectomy (Table 2). Only 1% of the subjects still had regular periods.

### **Source of Information on HRT**

The main source of information was the gynaecologist in the Obstetrics and Gynaecology Center (77.3%), followed by magazines (26.6%) and friends (18.7%) (Table 3). The subjects also obtained knowledge on HRT from general practice, other doctors, family members, nurses, television/radio programmes and the Internet. Only 2.5% learned about HRT from other sources like seminars, books and library.

### **Perceived Benefits and Risks of HRT**

Of the 203 subjects, 193 (95.1%) had discussed HRT with the gynaecologist during consultation. One hundred and eighty-five subjects (91.1%) were aware of some of the benefits and risks of HRT. More than half of the 203 subjects felt that osteoporosis prevention (69.0%) and relief from hot flushes (62.9%)

were the 2 main benefits of HRT (Table 4). About one-third of them believed that change of mood, maintenance of youthfulness and heart disease prevention were the other benefits. Only 3% of the subjects did not believe that HRT had any benefits.

On the other hand, most of the subjects (83%) deemed that cancer was the main risk of HRT (Table 5). The other risks associated with taking HRT, such as heart disease, hypertension, blood clots and stroke, were unknown to most of them. Thirty-two subjects (15.8%) felt that there were no risks involved in taking HRT.

### **Perceptions and Acceptability on HRT**

Of the 203 subjects, 153 (75.4%) were still on HRT at the time of study. The long-term benefits of HRT in the prevention of osteoporosis and improvement in quality of life were the main reasons given by 54.7% and 51.2% of the subjects, respectively, for continuing HRT (Table 6). The other long- and short-term benefits of HRT like relief of menopausal symptoms, such as hot flushes, and cardiac protection were also reasons for the subjects continuing HRT.

About 12% of subjects stopped taking HRT because of fear of developing cancer (Table 7). Approximately 9.5% and 2.5% of subjects discontinued HRT on the advice of a doctor and family members/friends, respectively. About 7.5% of the subjects stopped taking HRT due to its side effects. Only 3.0% of subjects stopped because of concern about weight gain.

The study also showed that most of the subjects (90.1%) preferred to take HRT in tablet form. The other preferred routes of HRT were cream (4.5%), patches (3.0%) and injections (1.5%). Only 1.0% of subjects preferred oestrogen implants.

Further analysis was performed to determine any association between patients who continued or stopped HRT with the other variables. There was no significant association between race, age group, marital status, education level, occupation and monthly salary with the patient's decision to stop taking HRT. However, subjects who did not know someone on HRT were significantly more likely to continue HRT ( $p=0.020$ ,  $OR=2.1$ , 95% CI 1.1 to 4.1). The majority of the subjects (65.5%) would recommend HRT to their friends. Among the group of subjects who had discontinued HRT, 38% of them would recommend HRT to friends. Subjects who recommended HRT to friends were 4.7 times more likely to continue HRT ( $p<0.001$ ,  $OR=4.8$ , 95% CI 2.4 to 9.4).

An examination of the difference in the continuous variables between the patients who continued and discontinued HRT showed a significant difference in the duration of menopause. The subject who discontinued HRT had a shorter duration of menopause ( $p=0.006$ , median 5.0 vs 8.0, Mann Whitney U Test).

## DISCUSSION

In this study, the majority of patients seen at the Climacteric Clinic were Chinese. The proportion of Malay patients seen at the Climacteric Clinic was lower than expected. This could be due to cultural reasons that make HRT less acceptable to Malays or a lack of awareness about HRT within this racial group.

Most of the patients who are currently on HRT are also in the older age group. This could be due to the increasing concern about the ill effects of menopause as the women get older. The high rate in the age group may also be due to personal experiences of friends within the same age group who had suffered complications such as osteoporotic fractures or heart disease.

It was surprising that most patients only knew about HRT from the gynaecologist in the Climacteric Clinic. Although information on HRT is widely available in the mass media and on the Internet, very few of the patients obtained information from these sources. This suggests the need to maintain a specialised clinic to treat menopausal women.

Subjects appeared to be unaware of the risks of HRT other than breast cancer. This might have been due to counselling practices that over-emphasised the risk of cancer without educating the patient about the other dangers of using HRT, such as deep vein thrombosis.

When the benefits of HRT as perceived by the subjects were evaluated, we found that most of the patients knew about the long established benefits of HRT, for example relief of hot flushes, prevention of osteoporosis and heart disease. However, only a few women were aware of some recently reported benefits such as reduced risk of colon cancer. Hence, there may be a need to inform patients of these relatively new discoveries.

It was also interesting to note that a fair number of subjects (20.2%) expected to have an improved sex life after commencing HRT. This was not usually conveyed to the doctor when a patient was first seen at the Climacteric Clinic.

When we asked subjects who had been on HRT for several years for the reason why they had continued taking the medication, most of them felt it was useful in preventing osteoporosis. However, a small group actually believed that continuing HRT was useful in ceasing menstruation. On the other hand, the majority of patients who had stopped HRT had done so out of fear of developing cancer. Notably, only a few patients had stopped HRT because of side effects. About 19 patients had stopped HRT on the advice of their doctors. This group might comprise patients for whom contraindications to HRT had been discovered after commencing treatment.

HRT in the form of oral tablets was the overwhelming preference among the subjects. Given this finding, it would appear that subjects did not find that regular pill-taking was a problem despite the availability of patches and implants. Hence, this form of HRT should be the first-line treatment for most women.

## CONCLUSION

The results of the study showed that a significant proportion of our patients was unaware of the many potential benefits of HRT. In addition, there appeared

to be a misconception that the risks of developing breast cancer from HRT were high. Knowledge of the other risks of HRT was also poor.

There is a need to enhance the knowledge of women on the benefits and risks associated with HRT. For instance, a Health Education team could be formed to provide the latest information on HRT through pamphlets written in various languages. The latest information about HRT and its benefits and risks of HRT should be included.

The study also showed that the doctor's role in increasing awareness about HRT is important. Understanding a patient's concerns would allow proper advice and rational prescription of the drug. Proper counselling should dispel unfounded fears about HRT. However, there are limits to the amount of information that can be given during a routine consultation. Therefore, nurses should complement the doctor in providing information to reinforce HRT benefits and risks. Nurses also play an important role in ensuring a patient's compliance with the treatment. All these are means of increasing awareness about HRT. Every woman should know about the positive and negative aspects of HRT, and ultimately make her own choice with regards to commencing or discontinuing treatment.

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#### AUTHORS' NOTE

This study was conducted at the time when HRT was an acceptable form of treatment for menopausal women. However, the results of the Women's Health Initiative (WHI) study (July 2002) revealed that although HRT reduced the risk of colon cancer and hip fractures, the health risks exceeded the benefits. The WHI study also confirmed the adverse cardiovascular effects of HRT, which had previously been reported as uncertain.

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