Available online at www.sciencedirect.com
SCIENCE DIRECT®
Maturitas 54 (2006) 205–212
MATURITAS
THE EUROPEAN MENOPAUSE JOURNAL
www.elsevier.com/locate/maturitas

Factors associated with treatment options among menopausal women in Taiwan

Yah-Wen Chiou [a], Chen-Jei Tai [b,c], Li-Yin Chien [d,*]

[a] *Institute of Community Health Nursing, National Yang Ming University and Department of Nursing, Taipei Veterans General Hospital, Taiwan*
[b] *Department of Traditional Chinese Medicine, Taipei Medical University, Taiwan*
[c] *Department of Obstetrics and Gynecology, Taipei Medical University Hospital, Taiwan*
[d] *Institute of Community Health Nursing, National Yang Ming University, 155 Li-Nong St., Sec. 2, Pei-Tou, Taipei 11221, Taiwan*

Received 30 August 2005; received in revised form 12 October 2005; accepted 14 October 2005

Abstract

Objectives: Taiwan has a two-tiered medical system that includes modern medicine and traditional Chinese medicine (TCM). The objectives of this study were to compare the characteristics of menopausal women who did not use any treatment, who used hormone replacement therapy (HRT), and who used TCM to treat their climacteric symptoms.
Methods: The study subjects were 182 women aged 46–55 years (non-treatment: 61, HRT: 60, TCM: 61). Variables used included socio-demographics, climacteric symptoms, other physical symptoms, experiences with the treatment, and attitude toward menopause. Multivariate analyses were performed using multinomial logistic regression.
Results: Compared with women in the non-treatment group, employed women were more likely to have received HRT or TCM. Women in the TCM group were more likely to have comorbid non-climacteric physical symptoms and were less likely to have family support for the use of HRT. Women in the TCM group were more likely to have an attitude regarding menopause as a natural phenomenon and as having little impact on attractiveness and sexual life. Severity of current climacteric symptoms was lower in the HRT group, while it was higher in the TCM group. These factors accounted for 66.1% of the model variances.
Conclusions: Women in different treatment groups had different characteristics. Health professionals should be aware of the differences and provide information on treatment options in order to help and support women in making treatment decisions.

Keywords: Menopause; Climacteric symptoms; Treatment options; Hormone replacement therapy; Traditional Chinese medicine

1. Introduction

Women experience a lot of changes during the menopausal period, including degeneration in physical health, loss of reproductive functions, alterations in body images, and changes in interpersonal

* Corresponding author. Tel.: +886 2 28267142; fax: +886 2 28238614.
E-mail address: lychien@ym.edu.tw (L.-Y. Chien).

0378-5122/$ – see front matter © 2005 Elsevier Ireland Ltd. All rights reserved.
doi:10.1016/j.maturitas.2005.10.009

relationships [1–4]. It has been reported that more than 80% of menopausal women experienced climacteric symptoms [5,6]. Despite this fact, whether a woman should receive treatment remains a controversy. It has been reported that 10–20% of women experience severe climacteric symptoms, which affect their quality of life significantly and may require medical interventions [7,8].

Hormone replacement therapy (HRT) has been used to treat menopausal women for more than a decade in Taiwan. Though there is a lack of data, it is believed that more and more women have been using HRT since the 1990s in Taiwan. However, the increasing trend was counteracted by a large-scale US study, which was widely reported by media in Taiwan. In 2002, a multi-center randomized controlled trial including 16,608 postmenopausal women aged 50–79 years recruited from 1993 to 1998 was reported. The experimental subjects who received hormone replacement therapy were more likely to develop coronary heart disease, breast cancer, stroke, and pulmonary embolism than the placebo-controlled subjects [9]. This has led to a halt to clinical trials of combined hormone replacement therapy for the management of menopausal symptoms. After the report of this important study, data from the Taiwan Bureau of National Health Insurance showed a decrease of 14.3% in the numbers of HRT prescriptions in Taiwan [10].

Due to the fear of the risks associated with HRT, many women may seek alternative therapies. However, the American College of Obstetricians and Gynecologists noted that there is little research evidence to support the efficacy of the alternative therapies [11]. Several countries in the North America and Europe have licensed acupuncturist, herbalist, and doctors in Chinese Medicine. Natural therapy and/or traditional Chinese medicine (TCM) are increasingly available to the public as treatment options. Taiwan has a two-tiered medical system that includes modern medicine and TCM. The Taiwan Bureau of National Health Insurance generally covers the medical expenses in the two systems [12,13]. There have been few studies on women's treatment options for their climacteric symptoms since the spread of the important HRT study from US [9]. The objectives of this study were to compare characteristics of menopausal women who did not use any treatment, those who used HRT, and those who used TCM to treat their climacteric symptoms.

2. Methods

This study applied a descriptive and correlational design. Face-to-face interviews with structured questionnaires were conducted with the study subjects.

2.1. Study subjects

The study subjects were 182 women aged 46–55 years. Women who were pregnant, who had menopause due to hysterectomy or bilateral oophorectomy, or who received cancer treatments were excluded. We divided the treatment options into three categories: non-treatment, HRT and TCM. The non-treatment group included women who had never or had not used HRT or TCM for climacteric symptoms during the year prior to the study period. Those in the HRT group were women who had used HRT for more than 1 month in the year prior to the study period. Those in the TCM group were women who had used TCM for more than 1 month in the year prior to the study period. Women in the TCM and HRT groups were recruited from two walk-in clinics in Taipei, Taiwan. Women in the non-treatment group were recruited from a community screening program for cervical and breast cancer in Taipei, Taiwan. Data were collected during the period of March to April 2004. The final samples were 61 women in the non-treatment group, 60 in the HRT group, and 61 in the TCM group.

2.2. Measurements

The study variables included socio-demographic characteristics, menopausal status, climacteric symptoms and non-climacteric physical symptoms or diseases (including hypertension, diabetes mellitus, heart failure, asthma, chronic bronchitis, chronic gastritis, and liver cirrhosis), family support for use of the treatment, use of treatment for climacteric symptoms by friends, and attitudes toward menopause. Menopausal status was divided into three stages using the definition of the North America Menopausal Society [14]. The three stages were premenopause (menstrual period becomes irregular for no more than

3 months), perimenopause (from menstrual period becomes irregular for more than 3 months to menstruation totally stopped), and postmenopause (from menstruation totally stopped to 1 year after the time).

The severity of the women's climacteric symptoms and their attitudes toward menopause were measured using scales developed for this study. Five experts (including two gynecologists, a Chinese Medicine doctor, a psychological researcher, and a head nurse in gynecological ward) reviewed, evaluated, and modified the contents of the questionnaire. A 33-item scale was developed to measure the severity of the women's climacteric symptoms. Three groups of climacteric symptoms were considered: vasomotor symptoms, general-somatic symptoms, and psychological symptoms. A five-point Likert scale was applied. The score assigned to the Likert were none = 0, symptoms present without discomfort = 1, mild discomfort = 2, moderate discomfort = 3, and severe discomfort = 4. The score ranged from 0 to 132, with the higher score indicating higher level of severity of climacteric symptoms. Attitudes towards menopause were assessed using a seven-item scale with a five-point Likert scale. The score assigned to the Likert were strongly disagree = 0, disagree = 1, neither agree nor disagree = 2, agree = 3, and strongly agree = 4. The scores were reversely coded for four items in the scale, so that a higher score indicated an attitude to regard menopause as a natural phenomenon and as having little impact on attractiveness or sexual life. Internal consistency scores as assessed using the Cronbach's α were 0.94 and 0.67 for severity of climacteric symptoms and attitude toward menopause, respectively.

2.3. Data analysis

The data were analyzed using the Statistical Package for Social Sciences for Windows version 11.0 (SPSS, Chicago, Ill, USA). One-way analysis of variance and chi-squared statistics were used to compare the differences among the three treatment groups. Symptom improvement between the HRT and TCM group were compared using the student *t*-test. Multinomial logistic regression was used to examine factors associated with treatment options. A *P*-value of less than 0.05 was considered statistically significant.

3. Results

Characteristics of the study subjects are presented in Table 1. There were no significant differences in ages or menopausal status among the three treatment groups (non-treatment, HRT, and TCM). Women in the TCM group were more likely to be unmarried and currently working, and to have higher education. Women in the TCM group had the highest percentage of using diet and lifestyle changes for their climacteric symptoms (85.2%), while the HRT group had the lowest percentage (55.0%) in doing so. Women in the HRT and TCM groups had higher percentages of having non-climacteric physical symptoms or diseases than women who did not receive any treatment. Women in the TCM group had the highest percentage of reporting their friends using TCM (52.5%), while women in the HRT group had the highest percentage of reporting their friends using HRT (76.7%). Family support for the use of HRT was the highest for the HRT group (70%), followed by the non-treatment group (37.7%), and the lowest for the TCM group (8.2%).

Women in the TCM group had significantly higher overall mean scores in the severity of climacteric symptoms, as well as in the three subcategories: vasomotor, general-somatic, and psychological symptoms (Table 2). Women in the HRT group had the lowest mean scores of symptom severity overall and in the three subcategories. The higher mean scores for the TCM group and the lower mean scores for the HRT group were consistent across items. Significant differences were detected in all except for six items (Table 2).

The scale of attitude toward menopause was designed so that a higher score indicated an attitude to regard menopause as a natural phenomenon and as having little impact on attraction and sexual life. Women in the TCM group reported the highest scores in the attitudes toward menopause, followed by the non-treatment group (Table 3). The HRT group had the lowest attitudinal scores.

Multinominal logistic regression results showed that the variables associated with treatment options were work status, presence of non-climacteric symptoms or disease, family support for use of HRT, severity of climacteric symptoms, and attitudes toward menopause (Table 4). Variables that were insignificant and thus

Table 1
Characteristics of the study subjects

	Treatment option			*P*-value
	Non-treatment ($n=61$) *n* (%)	HRT ($n=60$) *n* (%)	TCM ($n=61$) *n* (%)	
Age (years)				0.84
46–50	27 (44.3)	27 (45.0)	30 (49.2)	
51–55	34 (55.7)	33 (55.0)	31 (50.8)	
Menopausal status				0.37
Pre-menopause	10 (16.4)	16 (26.7)	11 (18.0)	
Peri-menopause	28 (45.9)	30 (50.0)	28 (45.9)	
Post-menopause	23 (37.7)	14 (23.3)	22 (36.1)	
Currently married	58 (95.1)	58 (96.7)	51 (83.6)	0.02
Educational level				<0.01
Elementary school or less	41 (67.2)	40 (66.7)	18 (29.5)	
High school or higher	20 (32.8)	20 (33.3)	43 (70.5)	
Currently working	20 (32.8)	25 (41.7)	36 (59.0)	0.01
Have religious beliefs	53 (86.9)	55 (91.7)	53 (86.9)	0.64
Have other non-climacteric symptoms or diseases	21 (34.4)	32 (53.3)	35 (57.4)	0.03
Friends' use of HRT	33 (54.1)	46 (76.7)	38 (62.3)	0.03
Friends' use of TCM to treat climacteric symptoms	16 (26.2)	22 (36.7)	32 (52.5)	0.01
Family support for use of HRT	23 (37.7)	42 (70.0)	5 (8.2)	<0.01
Family support for use of TCM	24 (39.3)	26 (43.3)	35 (57.4)	0.11
Use of diet and lifestyle change for climacteric symptoms	39 (63.9)	33 (55.0)	52 (85.2)	<0.01

P-value from chi-squared statistics.

were excluded were marital status, educational level, family support for the use of TCM, use of HRT or TCM by friends, and use of diet and lifestyle change for climacteric symptoms. Compared with the non-treatment group, women who received HRT or TCM were more likely to be currently working (OR = 2.98 for HRT, OR = 2.89 for TCM). Women in the TCM group were more likely to have other non-climacteric symptoms or diseases (OR = 3.44), while there were no significant differences in the presence of non-climacteric symptoms between HRT and non-treatment groups. Women in the TCM group had significantly lower family support for the use of HRT (OR = 0.14), while there were no significant differences in family support between HRT and non-treatment groups. Compared with the non-treatment group, the severity of climacteric symptoms was significantly lower in the HRT group, while it was significantly higher in the TCM group. Women in the TCM group reported more positive attitudes toward menopause (OR = 1.15). The Nagelkerke R^2 showed that the model explained 66.1% of the variances.

To examine whether the differences in the reported severity of climacteric symptoms were due to differential treatment efficacy between the HRT and TCM groups, we further compared the mean scores in perceived symptom improvement after treatment. The TCM group reported greater overall improvement in severity of climacteric symptoms, and greater improvement in vasomotor and psychological symptoms (Table 5). There were no significant differences in the perceived symptom improvement in the general somatic symptoms.

4. Discussion

Since the widespread of the study results of the risks associated with HRT use, many women stopped their HRT use and tried to find alternatives. In the Taiwanese context, traditional Chinese medicine is a readily available alternative for people. The traditional Chinese medicine views health as a state of somatic balance of yin and yang, hot and cold. Many people believe that the Chinese medicine is natural, and is milder and safer than the modern medicine [12,15]. The results of our study showed that women in the

Table 2
Mean scores of severity of menopause symptoms by treatment options ($N = 182$)

	Non-treatment mean (S.D.)	HRT mean (S.D.)	TCM mean (S.D.)	*P*-value
Total scale	16.48 (13.17)	5.23 (2.62)	24.67 (15.67)	<0.001
Vasomotor symptoms	5.21 (4.11)	2.00 (1.32)	7.49 (5.48)	<0.001
Hot flash	0.79 (0.86)	0.77 (0.89)	1.02 (1.22)	0.32
Night sweating	0.43 (0.78)	0.13 (0.47)	0.59 (0.97)	0.005
Spontaneous sweating	0.57 (0.76)	0.57 (0.79)	0.46 (0.91)	0.689
Cold hands and feet	0.34 (0.54)	0.12 (0.37)	0.69 (0.99)	<0.001
Numbness and tingling in the limbs	0.44 (0.62)	0.48 (0.70)	1.03 (1.20)	<0.001
Headache	0.49 (0.91)	0.50 (0.89)	1.39 (1.36)	<0.001
Palpitation	0.82 (0.85)	0.57 (0.83)	1.13 (1.12)	0.005
Dizziness	0.52 (0.79)	0.28 (0.56)	0.95 (1.09)	<0.001
Dry eyes	0.49 (0.74)	0.18 (0.60)	1.46 (1.21)	<0.001
Uncontrolled tearing	0.31 (0.56)	0.25 (0.51)	0.51 (0.89)	0.09
General-somatic symptoms	5.66 (4.63)	1.85 (1.44)	9.30 (6.05)	<0.001
Dry skin	0.70 (0.78)	0.28 (0.59)	1.07 (1.09)	<0.001
Breast tenderness	0.26 (0.66)	0.18 (0.62)	0.75 (0.96)	<0.001
Poor appetite	0.05 (0.22)	0.03 (0.18)	0.21 (0.61)	<0.001
Constipation or diarrhea	0.21 (0.55)	0.13 (0.50)	0.82 (1.19)	<0.001
Ache in neck, back and waist	1.00 (1.08)	0.57 (0.87)	1.90 (1.15)	<0.001
Arthralgia	0.75 (0.96)	0.30 (0.67)	1.30 (1.20)	<0.001
Heel pain	0.10 (0.35)	0.07 (0.25)	0.48 (0.87)	<0.001
Frequent urination	0.79 (0.76)	0.67 (0.77)	0.89 (0.99)	0.36
Incontinence	0.21 (0.45)	0.18 (0.47)	0.89 (1.05)	<0.001
Dyspareunia	0.54 (0.70)	1.04 (0.85)	1.22 (1.25)	<0.001
Weight gain of more than 2–3 kg	0.39 (0.67)	0.35 (0.69)	0.69 (0.85)	0.02
Blurred vision	0.64 (0.84)	0.32 (0.70)	1.59 (0.92)	<0.001
Psychological symptoms	5.61 (5.65)	1.38 (1.34)	7.89 (6.57)	<0.001
Tiredness and fatigue	0.80 (0.91)	0.62 (0.78)	1.82 (0.94)	<0.001
Irritability	0.67 (0.77)	0.65 (0.76)	0.98 (1.04)	0.06
Depressed mood	0.36 (0.78)	0.08 (0.28)	0.72 (0.97)	<0.001
Poor memory	0.69 (0.79)	0.40 (0.69)	1.48 (0.99)	<0.001
Difficulty falling to sleep	0.61 (0.86)	0.40 (0.92)	1.26 (1.35)	<0.001
Insomnia	0.79 (0.97)	0.75 (1.04)	1.48 (1.27)	<0.001
Short of breath	0.16 (0.52)	0.17 (0.49)	0.57 (0.96)	0.001
Worries about changes in the body and health	0.52 (0.79)	0.63 (0.90)	1.08 (0.82)	0.001
Stress and anxiety	0.44 (0.79)	0.38 (0.67)	1.03 (1.08)	<0.001
Moodiness	0.38 (0.69)	0.37 (0.66)	0.57 (0.96)	0.26
Unfaithfulness	0.18 (0.47)	0.05 (0.22)	0.51 (0.81)	<0.001

Score range: total scale: 0–132; vasomotor: 0–40; general-somatic: 0–48; psychological: 0–44; item: 0–4; higher score indicates higher level of symptom severity; *P*-value from ANOVA.

TCM group were more likely to have an attitude to regard menopause as a natural phenomenon and as having little impact on attractiveness and sexual life. On the contrary, women who used HRT had lower mean attitude scores. The differences in attitudes toward menopause may be associated with differences in the basic treatment assumptions for HRT and TCM. In the HRT treatment, hormones are given to women due to the belief that the lack of hormones causes the uncomfortable climacteric symptoms. In the TCM treatment, because of the balanced view of health, the focus is on the balanced function of the whole body system, rather than on the lack of hormones. Thus, women in the TCM group may believe that they are taking the TCM to help the body adjusting to the menopausal changes rather than dealing with insufficient hormones. Therefore, women who have more positive attitudes toward menopause chose the TCM to help them adjust

Table 3
Mean scores of attitude toward menopause by treatment option

	Non-treatment mean (S.D.)	HRT mean (SD)	TCM mean (S.D.)	*P*-value
Total scale	12.49 (3.82)	10.47 (2.90)	14.95 (2.96)	<0.001
Women can go out freely after menopause	2.74 (0.73)	2.65 (0.82)	3.16 (0.71)	<0.001
It is natural for problems and symptoms associated with menopause to occur	1.97 (0.93)	2.42 (0.79)	2.98 (0.72)	<0.001
After menopause, sex is more enjoyable and I do not worry about pregnancy any more	1.95 (0.90)	1.60 (0.69)	2.56 (0.79)	<0.001
The following items were reversely coded				
Women are getting older after menopause	1.20 (0.93)	0.57 (0.53)	1.26 (1.00)	<0.001
Menopause decreases women's attractions	1.79 (1.04)	1.27 (0.90)	1.98 (1.01)	<0.001
Frequency of sexual intercourse decreases after menopause	1.67 (1.00)	1.35 (0.71)	1.57 (0.85)	0.11
Menopause causes unpleasant symptoms and makes women irritable and angry	1.18 (1.06)	0.62 (0.74)	1.43 (1.02)	<0.001

The score range: total scale: 0–28; item: 0–4 hihger score indicates an attitude to regard menopause as a natural phenomenon and as having little impact on attraction and sexual life.

Table 4
Multinomial logistic regression model for treatment options ($N = 182$)

	HRT			TCM		
	OR	95% CI	*P*-value	OR	95% CI	*P*-value
Currently working	2.98	1.05–8.41	0.04	2.89	1.22–6.83	0.02
Have non-climacteric symptoms or diseases	1.17	0.43–3.17	0.76	3.44	1.44–8.24	0.005
Family support for use of HRT	2.10	0.65–6.76	0.21	0.14	0.04–0.50	0.003
Severity of menopausal symptoms	0.69	0.59–0.81	<0.001	1.03	1.00–1.07	0.03
Attitudes toward menopause	0.89	0.76–1.06	0.21	1.15	1.00–1.31	0.049

The reference group was those women who did not receive any treatment.

Table 5
Mean scores in perceived symptom improvement by treatment method

	N[a]	Mean	S.D.	*P*-value
Overall scale				0.002
HRT	262	1.19	0.52	
TCM	1035	1.33	0.99	
Vasomotor symptoms				0.001
HRT	101	1.28	0.55	
TCM	308	1.54	0.97	
General-somatic symptoms				0.834
HRT	87	1.22	0.47	
TCM	374	1.20	1.01	
Psychological symptoms				0.001
HRT	74	1.03	0.50	
TCM	353	1.28	0.97	

[a] *N* here represents the number of reported symptoms, rather than the number of women; individual score range was 0–3: 0 = no improvement; 1 = some improvement; 2 = medium improvement; 3 = significant improvement.

and adapt to menopausal changes, while women who have more negative attitudes toward menopause chose the HRT to prevent the climacteric symptoms from occurring. This speculation is partly evidenced by our findings that women in the TCM group were more likely to also use diet and lifestyle changes for climacteric symptoms, while women in the HRT group were less likely to do so. In a study from Thailand, researchers reported that women who intended to use HRT had more negative attitudes toward menopause than women who did not intend to use HRT [16]. Our study did find that women in the HRT group had the lowest mean attitude scores, but the differences in the attitude scores between HRT and non-treatment groups were not apparent after the multi-variable analyses.

In our study, we found that women who did not have family support for the use of HRT and who had non-climacteric symptoms or diseases were more likely to be in the TCM group. This may suggest that these

women felt that they had health problems and need medical attention, but because of the low support for the use of HRT, they then sought treatment from TCM practitioners. The findings that employed women were more likely to have received either HRT or TCM treatment may be associated with the job demands placed on them. Thus, the employed women chose to treat their climacteric symptoms so that the symptoms would not interfere with their work. It is also possible that the employed women had more resources concerning treatment options and the treatment was more accessible and affordable to them. Further study is needed to validate this speculation.

In our study, we found that at the time of the study, women in the HRT group reported the lowest severity of menopausal symptoms, while women in the TCM group reported the highest severity of menopausal symptoms. Since the study was a cross-sectional study, the results need to be explained with caution. The observed differences in severity of climacteric symptoms could be due to the initial differences in symptom severity between the HRT and TCM group before the treatment. Equivalently, the results may suggest that HRT is more effective in alleviating climacteric symptoms than TCM. We further tested the perceived improvement in symptom severity after the treatment and found that women in the TCM group reported greater improvement in their climacteric symptoms. Thus, initial differences in symptoms severity before treatment rather than differential treatment effects were supported. Nonetheless, randomized controlled trails are needed to determine and compare the treatment effects.

Our study was limited by the cross-sectional design, thus a causal relationship cannot be established. This study examined the relationship between women's characteristics and their treatment options. Future study should consider the care provider's characteristics and their effect on women's use of HRT or TCM. The study subjects were from a convenience sample. A population-based study is needed to further examine the issue.

5. Conclusion

In this study, we found that menopausal women in different treatment groups had different characteristics. Women in the TCM group were more likely to have attitudes to regard menopause as a natural phenomenon and as having little impact on attractiveness and sexual life than women in the HRT and non-treatment groups. Women in the HRT group demonstrated the lowest severity of climacteric symptoms. Family support for the use of treatment was significant, thus inclusion of family members in the treatment decision was implicated. Health professionals should be aware of the differences of women in different treatment groups and provide information on treatment options in order to help and support women in making their treatment decisions.

References

[1] Yang SC, Lu ZY. The politics of the menopausal body among Taiwanese women. J Nurs Res 2000;5:491–502.
[2] Tsao LI. Living with changing health: perimenopause among Chinese women in Taiwan. J Nurs Res 1998;6:448–60.
[3] Abernethy K. The menopause and hormone replacement therapy. Nurs Stand 1997;11:49–56.
[4] Lindsay SH. Menopause, naturally: exploring alternatives to traditional hormone replacement therapy. AWHONN Lifelines 1999;3:32–8.
[5] Lee I, Wang HH. Patterns and related factors of self-care behaviors among perimenopausal women. Public Health Q 2001;28:151–60 [in Chinese].
[6] Porter M, Penney GC, Russell D, Russell E, Templeton A. A population based survey of women's experience of the menopause. Br J Obstet Gynaecol 1996;103:1025–8.
[7] Hvas L, Thorsen H, Sondergaard K. Discussing menopause in general practice. Maturitas 2003;46:139–46.
[8] Jokinen K, Rautava P, Makinen J, Ojanlatva A, Sundell J, Helenius H. Experience of climacteric symptoms among 42–46 and 52–56-year-old women. Maturitas 2003;46:199–205.
[9] Writing Group for the Women's Health Initiative Investigators. Risks and benefits of Estrogen plus Progestin in healthy postmenopausal women. Principal results from the Women's Health Initiative randomized controlled trial. JAMA 2002;288:321–33.
[10] Bureau of National Health Insurance. Drug and special materia medica: analysis of materia medica usage. Available at: http://www.nhi.gov.tw/02hospital/hospital_6_05.html. Accessed October 17, 2003.
[11] American College of Obstetricians and Gynecologists Committee on Practice Bulletins—Gynecology. ACOG Practice Bulletin. Clinical Management Guidelines for Obstetrician-Gynecologists. Use of botanicals for management of menopausal symptoms. Obstet Gynecol 2001;97(Suppl.):1–11.
[12] Chen YC. Chinese values, health and nursing. J Adv Nurs 2001;36:270–3.

[13] Liang CC. The development and examination of the Chinese–Western medical beliefs scale. J Nurs Res 1999;7:445–58.
[14] North American Menopause Society corporate authors. Menopause Core Curriculum Study Guide 2002. USA: NAMS.
[15] Seidl MM, Stewart DE. Alternative treatments for menopausal symptoms. Qualitative study of women's experiences. Can Fam Physician 1998;44:1271–6.
[16] Burusanont M, Hadsall RS. Factors associated with intention to use hormone replacement therapy among Thai middle-aged women. Maturitas 2004;47:219–27.