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Original Article

Perceptions of using herbal medicines for managing menopausal symptoms: a web-based survey of Korean medicine doctors

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ABSTRACT

Background: Most women experiencing menopause have sought out traditional treatment options to relieve their symptoms. The aim of this study, which used a web-based survey, was to investigate perceptions of Korean medicine doctors (KMDs) on managing menopausal symptoms with herbal medicines. **Methods:** We developed and then sent a questionnaire via email to a total 497 KMDs in obstetrics and gynecology affiliated with the Society of Korean Medicine. The questionnaire consisted of three categories and a total of 26 items focusing on major menopausal symptoms, prescriptions, pattern identification, and background characteristics.

Results: Out of the 497 KMDs, we received responses from 48 doctors, a response rate of 9.7%. The most common symptoms of menopausal disorder perceived by responded KMDs were hot flashes (22.9%), sleep disorders (18.2%), systemic fatigue (12.5%), and sweating (12.0%). The herbal medicines reported to be the most effective when treating patients with menopausal disorders were Jiawei shaoyao-san (12.5%), Jiawei guipi-decoction (11.8%). The responding KMDs recommended one to two months of treatment for female menopausal disorder, using two to three doses of herbal medicine per day in combination with traditional Korean medicine (KM) therapies such as acupuncture, moxibustion, cupping, and pharmacopuncture.

Conclusion: The results of this survey may provide information about doctor's perceptions on using herbal medicines to manage patient's menopausal symptoms. Future studies should be done with a larger sample size to overcome the limitation of this study and to examine how KM is used for treating menopausal symptoms in clinical practice.

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1. Introduction

Menopause, defined as the permanent cessation of ovarian function, usually signals the end of a woman's menstrual periods.¹ The main symptoms of menopause are hot flashes, night sweats, sleep problems, mood disorders, weight gain, loss of sexual desire, and declines in cognitive functioning.² These symptoms cause intense discomfort and a substantial reduction in quality of life. Women have been looking for alternative treatment options to relieve their

symptoms because of the side effects of hormone replacement therapy.³ Above all, herbal medicine is a popular choice.^{3,4} Its effectiveness and long-term safety, however, have not been adequately researched.⁵ There are few clinical studies supporting the usage of herbal medicines for managing menopausal symptoms. In addition, there have been very few surveys to gather opinions about using herbal medicine in the treatment of menopausal disorders from clinicians who are involved in the clinical treatment of these disorders.

The aim of this study was to explore the perceptions Korean medicine doctors (KMDs) have about using herbal medicines to treat menopausal symptoms.

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2. Methods

2.1. Study design

This study involved a cross-sectional study with a web survey of KMDs regarding their perceptions of the major menopausal symptoms and prescribing Korean medicine.

2.2. Participants and recruitment

This survey was conducted between May 25 and June 7, 2016. We developed and sent a questionnaire to a total of 497 members of the Society of Korean Medicine obstetrics and gynecology regardless of sex, age, or residence.

2.3. Development of survey questionnaire

We developed the questionnaire using information from relevant literature found in electronic databases and from classical medical texts. We used PubMed, OASIS, classical literature, and clinical traditional Korean medicine literature to extract information about major menopausal symptoms and herbal prescriptions. We derived items of 22 major menopausal symptoms and 19 herbal prescriptions. We then completed a draft of the questions for the survey (Fig. 1). We formed an expert panel to review the draft with four experts from Korea Institute of Oriental Medicine and four members of the Society of Korean Medicine Obstetrics and Gynecology. We finalized the draft based on their opinions and got approval from the Society of Korean Medicine Obstetrics and Gynecology to use the final form (Supplement 1).

2.4. Variables

The survey questionnaire included the following key variables (Supplement 1):

- 1) Major symptoms of menopausal disorders and herbal prescriptions used to treat them
- 2) The pattern identification and the herbal prescription used according to the stages of menopausal disorders
- 3) The doses of herbal medicines for women with menopausal disorders
- 4) General characteristics of respondents (age, sex, region, etc.)

2.5. Data sources/measurement

We surveyed licensed KMDs of the Society of Korean Medicine Obstetrics and Gynecology through Survey Monkey (<https://ko.surveymonkey.com>).

2.5. Statistical analysis

The frequency analysis of each item in the survey was performed using Microsoft Excel 2016. Descriptive statistics were conducted for each of the percentage distributions using each category of data.

2.7. Ethical considerations

The ethical review committee of the Semyung University approved this study (SMU-EX-2019-06-001). The survey was conducted on a voluntary basis, and the participants agreed to the use of the collected data for scientific purposes.

Table 1

Demographic characteristics of respondents (n = 48).

Classification	Total (n = 48)	
	n	%
Sex		
Male	13	27.1
Female	10	20.8
No response	25	52.1
Age (years)		
20–29	3	6.3
30–39	10	20.8
40–49	9	18.8
50–59	1	2.1
No response	25	52.1
Duration of clinical experience		
Under 5years	8	16.7
Over 5 under 10years	4	8.3
Over 10 under 15years	5	10.4
Over 15years	6	12.5
No response	25	52.1
Place of work		
KM hospital	13	27.1
KM clinic	9	18.8
No response	26	54.2
Specialist of KM and Gynecology		
Yes	17	35.4
No	6	12.5
No response	25	52.1

KM: Korean medicine.

3. Results

3.1. General characteristics

Out of the initial 497 KMDs who were sent the survey, we received responses from only 48 doctors, a response rate of 9.7%. The general characteristics of the respondents are shown in Table 1.

3.2. Perceptions about the major symptoms of menopausal women

The most common symptoms of menopausal disorder perceived by KMDs who responded were hot flashes (22.9%), sleep disorders (18.2%), systemic fatigue (12.5%), sweating (12.0%), joint pain/low back pain (6.3%), and depression (5.7%) (Table 2).

3.3. Main pattern identification and herbal medicines according to stages of menopausal disorder

Table 3 shows responses to the main pattern identification and the herbal prescriptions given for menopausal disorders according to the stage of the condition. The major patterns of symptoms doctors identified for the pre, peri and postmenopausal phases, respectively, were liver qi stagnation (27.1%), kidney yin deficiency (20.8%), and kidney yin deficiency (20.8%). The most frequent herbal remedies prescribed for the pre, peri and postmenopausal phases, respectively, were Jiawei shaoyao-san (Gami soyo-san, 31.3%), Jiawei guipi-decoction (Gami gwibi-tang, 16.7%), and Liuwei dihuang-decoction (Yukmi jihwang-tang, 16.7%).

3.4. Dose of herbal medicine for women with menopausal disorder

The most recommended dose of herbal medicine per day was three doses (29.2%), followed by two doses (20.8%) and the mean duration of treatment with herbal medicine was four weeks (18.8%), followed by eight weeks (12.5%), and six weeks (10.4%) (Table 4).

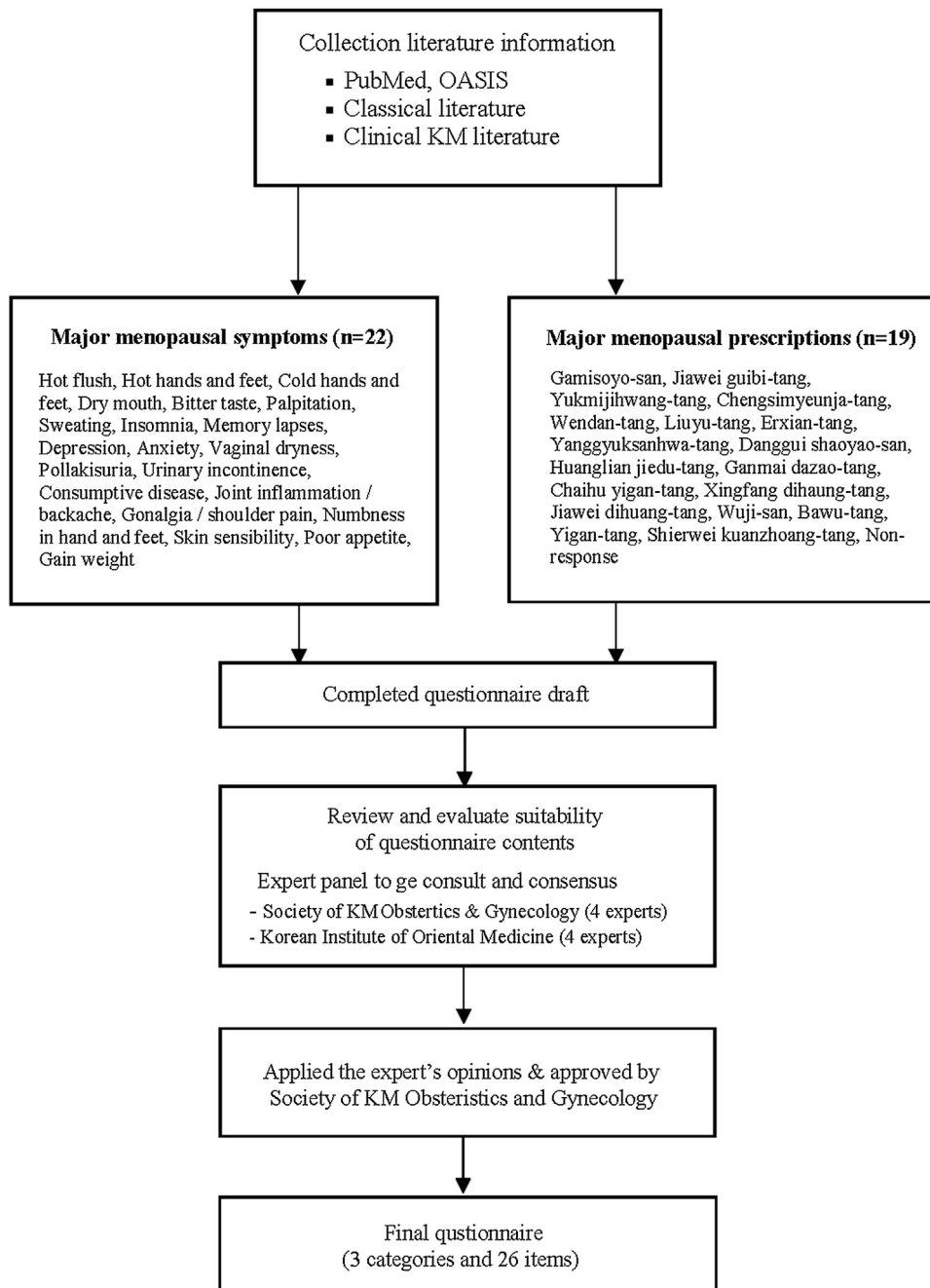


Fig. 1. Questionnaire development process.

The most frequent concomitant treatment with herbal medicine was acupuncture (47.9%), followed by pharmacopuncture (27.1%), moxibustion (27.1%), cupping (20.8%), and electroacupuncture (12.5%).

4. Discussion

We investigated the perception of using herbal medicines to manage menopausal symptoms with a questionnaire developed through literature reviews and experts' opinions. The results of the pilot survey shows that Jiawei guipi-decoction (Gami gwibi-tang) is widely used to alleviate neuropsychiatric and digestive issues related to menopausal symptoms – including insomnia, chest discomfort, hot flashes, loss of appetite, and lethargy caused by dual

deficiency of the heart and spleen.⁶ Liuwei dihuang-decoction (Yukmi jihwang-tang) is used to treat menopausal symptoms caused by kidney deficiency such as blushing (hot flashes), chest discomfort, and heat sensations in the chest, palms, and soles. With a patient's increasing age, the stage of the condition showed a pattern of shifting toward deficiency syndromes, such as kidney yin deficiency, a non-interaction between the heart and kidney, rather than liver qi depression and liver qi stagnation, and this shift in the pattern was reflected in the use of prescriptions.^{7–9}

There are two similar studies which investigated herbal medicines for menopausal symptoms.^{10,11} One study analyzed a nationwide prescription database to investigate the prescription patterns of Chinese herbal products for menopausal symptoms, in Taiwan.¹⁰ The other study analyzed survey results on the frequency of KM for menopausal symptoms.¹¹ Our results of the major herbal

Table 2
Perception on the major symptoms of menopausal disorder.

Symptoms	n	%
Circulatory system		
Hot flush	44	22.9
Hot hands and feet	4	2.1
Cold hands and feet	2	1.0
Dry mouth	3	1.6
Bitter taste	1	0.5
Palpitation	9	4.7
Sweating	23	12.0
Nervous system		
Insomnia	35	18.2
Memory lapses	2	1.0
Depression	11	5.7
Anxiety	3	1.6
Reproductive system		
Vaginal dryness	2	1.0
Urinary system		
Pollakisuria	2	1.0
Urinary incontinence	1	0.5
Musculoskeletal system		
Systemic fatigue	24	12.5
Joint inflammation /backache	12	6.3
Gonalgia / shoulder pain	3	1.6
Sense organs		
Numbness in hand and feet	3	1.6
Skin sensibility	1	0.5
Alimentary system		
Poor appetite	1	0.5
Metabolic system		
Gain weight	6	3.1

Duplicated responses were allowed.

medicines prescribed for menopausal symptoms (Shaoyao-san, Guipi-decoction) are similar to those found in Taiwan and the previous Korean survey. However, some herbal medicines in Korea are different from Taiwan. Comparing our study to these two studies, we have provided more information about the pattern identification and the herbal medicines that were prescribed for different menopausal stages as well as information about the dosages of these herbal medicines.

Table 3
The major pattern identification and herbal medicines for different stages of menopausal disorder.

	Pre-menopause		Peri-menopause		Post-menopause	
	n	%	n	%	n	%
Pattern Identification						
Liver qi depression	8	16.7	1	2.1	0	0.0
Liver qi stagnation	13	27.1	4	8.3	2	4.2
Phlegm-dampness	0	0.0	0	0.0	2	4.2
Kidney yang deficiency	2	4.2	1	2.1	2	4.2
Yin deficiency	2	4.2	10	20.8	10	20.8
Dual deficiency of the heart-spleen	4	8.3	2	4.2	5	10.4
Non-interaction between the heart and kidney	4	8.3	9	18.8	3	6.3
Other	2	4.2	2	4.2	1	2.1
No response	13	27.1	19	39.6	23	47.9
Prescription (Chinese name/Korean name)						
Jiawei quipi decoction (Gami gwibi-tang)	11	22.9	8	16.7	7	14.6
Jiawei shaoyao-san (Gami soyo-san)	15	31.3	7	14.6	3	6.3
Danggui shaoyao-san (Dangguijakyak-san)	1	2.1	1	2.1	0	0.0
Chaihu yugan-san (Sihoukgan-san)	1	2.1	0	0.0	0	0.0
Wendan decoction (Ondam-tang)	0	0.0	1	2.1	2	4.2
Liuwei dihuang decoction (Yukmijihwang-tang)	1	2.1	6	12.5	8	16.7
Liuyu decoction (Yukwool-tang)	3	6.3	1	2.1	0	0.0
Erxian decoction (Yiseon-tang)	0	0.0	2	4.2	1	2.1
Other	3	6.3	3	6.3	4	8.3
No response	13	27.1	19	39.6	23	47.9

Table 4
Recommended regimen of HM for managing menopausal disorder.

Dose of HM	n	%
Number of doses		
Once a day	0	0.0
Twice a day	10	20.8
Three times a day	14	29.2
No response	24	50.0
Treatment duration		
2 weeks	1	2.1
3 weeks	1	2.1
4 weeks (1 month)	9	18.8
5 weeks	0	0.0
6 weeks	5	10.4
7 weeks	0	0.0
8 weeks (2 months)	6	12.5
3 months	1	2.1
More than 4 months	1	2.1
No response	24	50.0
Combined treatment with HM ^a		
Acupuncture	23	47.9
Pharmacopuncture	13	27.1
Electro-acupuncture	6	12.5
Moxibustion	13	27.1
Cupping	10	20.8
Chuna	1	2.1
KM for physical therapy	4	8.3
Other	1	2.1
No response	24	50.0

HM: herbal medicine; KM: Korean medicine.

^a Duplicated responses were allowed.

There were limitations to this study. First, the response rate was too low to make generalizations. Second, half of the participants did not fully complete the questionnaire; they left the open-ended questions unanswered.

The questionnaire that we developed, and the results of this pilot survey provide valuable information about the usage of herbal medicines in managing menopausal symptoms. However, we may not be able to generalize because the size of our sample was not large enough to be representative. Future studies should be done with more participants, and the results should be confirmed in clinical practice.

Author contributions

JHJ, HWL, JC, JAL, and MSL conceptualized this study. JHJ, JC, JAL, MSL drafted, made the revisions and created the final version of questionnaire. JHJ, JC, HWL, HYG made the web version and performed the survey. JHJ, HWL, and MSL wrote the original draft. JC, TYC, JAL, HYG critically commented on the manuscript. All authors approved the final version.

Conflict of interest

The authors declare that they have no competing interests.

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Ethical statement

The ethical review committee of the Semyung University approved this study (SMU-EX-2019-06-001). The survey was conducted on a voluntary basis, and the participants agreed to the use of the collected data for scientific purposes.

Data availability

Data will be made available on request.

Supplementary material

Developed questionnaire can be found, in the online version, at doi:<https://doi.org/10.1016/j.imr.2019.08.004>.

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