

Use and perception of Smoking Cessation in Traditional Medicine: A Survey of Korean Medical Practitioners

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Abstract

Objectives : This survey assessed Korean medical doctors' (KMDs') use and perception of smoking cessation therapies in traditional Korean medicine (TKM) and their drawbacks.

Methods : A total of 14,485 KMDs affiliated with the Association of Korean Medicine were sent surveys via email. They were asked the use and perception of smoking cessation therapies in TKM and their drawbacks: Present use of Korean medicine treatment for smoking cessation, ideal treatment for smoking withdrawal symptoms, advantages and disadvantages of smoking cessation treatments in Korean medicine were asked with closed-ended questionnaire.

Results : Two hundred fifty-three KMDs (1.75%) responded to the questionnaire. According to the results of the study, more than half of KMDs (51.4%) answered that they have practiced smoking cessation therapy. The most frequently used treatments for smoking cessation were ear acupuncture (EA) (74.6%) and acupuncture (15.4%), and the most of TKM doctors said that they were the most effective treatments. The advantages of smoking cessation treatment in TKM were the fewer adverse events (53.4%), availability to stimulate acupoints continuously in everyday life (48.2%), and the possibility of controlling withdrawal symptoms. Disadvantages included the long treatment duration and the necessity of frequent visits to the doctor. The greatest disadvantage was the lack of sufficient evidence for the effectiveness of TKM smoking cessation protocols.

Conclusions : Despite of the low response rate, the survey results show that the main treatment modalities for smoking cessation are acupuncture, and this was also estimated effective for stop smoking. However, to improve smoking cessation rate, the more various smoking cessation treatments should be developed.

Key words : smoking cessation; traditional Korean medicine; survey

I. Introduction

Recent study shows that smoking causes

cardiovascular diseases and the death of about more than 7 million people each year. However, comprehensive and timely smoking cessation programs can reduce the smoking rates¹⁾.

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Approximately 195 countries implement smoking cessation programs and they are consisted of consulting and pharmaceutical therapies. In addition to pharmaceutical therapies, a range of therapeutic traditional medical methods including acupuncture, moxibustion, herbal medicine, and manage programs have been used for the treatment of smoking^{2,3)}. Some systematic reviews of the effectiveness of acupuncture for smoking cessation have been published^{4,5)}. Though a large number of clinical and *in vivo* studies have been performed, there is insufficient information available on the actual status of the use of certain acupoints and herbal medicines¹⁾.

In Korea, various treatments including moxibustion, acupuncture, and herbal medicine are used for smoking cessation. However, little research has been performed on how doctors use acupuncture and specifically on how to perform acupuncture treatment for smoking cessation. Currently, acupuncture treatment for smoking cessation is not covered by insurance benefits and its effectiveness is controversial. However, the currently used smoking cessation supplements and therapies have various adverse events, and there are limitations to the various additional treatments that are caused by stop smoking.

Therefore, it is necessary to investigate the smoking cessation therapies used by Korean Medicine practitioners, along with the specific methods they use. It is also necessary to carry out clinical studies based on the data acquired so as to develop better smoking cessation treatments in the future. The purpose of this study was to investigate the current status of use and perception of smoking cessation and the specific treatment behaviours of Korean Medicine Doctors (KMDs). This study results are the fourth outcome of our STOP (Stop Tobacco Programme using traditional Korean medicine) study series.

II. Methods

1. Study design

This study was a survey of KMDs regarding their perception of smoking cessation therapies in traditional Korean medicine (TKM), and the detailed treatment methods they use (Appendix). A total of 14,485 KMDs who were members of the Association of Korean Medicine (AKOM) were surveyed via email in April 2015.

2. Participants

Among a total of 17,000 KMDs in Korea, 14,485 are members of the AKOM in 2015. We surveyed licenced KMDs registered with the AKOM who consented to participate in the survey, irrespective of sex, age, and residence.

3. Variables

The survey questions used included the following key subjects:

- 1) Treatment methods for smoking cessation
- 2) Advantages, disadvantages, and obstacles associated with TKM therapies for smoking cessation
- 3) General characteristics of respondents (age, sex, region, education, etc.)

4. Data sources/measurement

We surveyed licenced KMDs of the AKOM via e-mail. It was self-reported questionnaire, and the results were dealt with electronic data.

5. Study size

We contacted an AKOM administrator to obtain permission to use their system for the survey. The total number of AKOM members was 14,485.

6. Statistical analysis

Frequency analysis was conducted for each of the survey questions. SAS (Ver.9.1.3, SAS Institute Inc., Cary, NC) was used for the statistical analysis.

7. Ethical considerations

The ethical review committee of the Kyung Hee University approved this study (KHSIRB-15-045). The survey was conducted on a voluntary basis, and the participants agreed to the use of the collected data for scientific purposes.

III. Results

1. General characteristics

Out of the initial 14,485 individuals contacted, 253 responded (1.75%). The general characteristics of the subjects are shown in Table 1. There were 214 (84.6%) males and 39 (15.4%) females. In terms of board specialties, 99 (39.1%) had obtained board certification, and the remaining 154 (60.9%) did not have board certification. Furthermore, 172 (68%) worked in TKM clinics, 29 (11.5%) worked in TKM hospitals, and the others were in private practice at health centres, convalescent hospitals, TKM universities, etc. (Table 1).

2. General recognition about smoking treatment using TKM

Among all respondents, 35.6% (n=90) had

Table 1. Demographic characteristics of respondents

Variable		N	%
Sex	Female	39	84.6
	male	214	15.4
Residence	Seoul	67	26.5
	Metropolis (6 region)	68	26.9
	Gyeonggi-do	41	16.2
	Gangwon-do	6	2.4
	Chungcheong-do	23	9.1
	Jeolla-do	19	7.5
	Gyeongsang-do	22	8.7
	Jeju-do	5	2
Other country	1	0.4	
Place of work	TKM hospital	29	11.5
	TKM clinic	189	75.7
	Health centre	7	2.8
	TKM university	3	1.2
	Other	25	9.9
Have certification for TKM specialist	Yes	99	39.1
	No	154	60.9
total		253	100

All data are expressed in N (%), TKM; Traditional Korean Medicine

received education in university or underwent a training course regarding smoking cessation treatment protocols, while 163 (64.4%) did not receive any formal education for the same. TKM protocols for smoking cessation were used by 51.4% (n=130) of the respondents. Regarding the symptom for which patients were treated, 42.7% (n=99) respondents answered "nicotine addiction", 24.1% (n=56) respondents answered "psychological symptoms including depression, anxiety, irritation, etc", 7.3% (n=17) answered "nausea, weight gain". Nine-point one percent (n=21) respondents answered "headache", 6% (n=14) answered "insomnia", while 10.3% (n=24) answered "indigestion". Responding to a question on the most among various TKM methods, ear acupuncture was used by 74.6% (n=97) of the respondents, acupuncture

was used by 15.4%(n=20), herbal medicine (granule type) by 4.6% (n=6) and packaged herbal medicine by 2.3% (n=3) of the respondents.

Regarding the most effective TKM method for smoking cessation, 95.3% (n=123) of the respondents considered ear acupuncture, 56.6% (n=123) considered acupuncture while 34.1% (n=44)

considered herbal medicine as the most effective treatment as shown in Table 2.

Most of the respondents considered ear acupuncture and acupuncture as the ideal treatment for symptoms accompanying smoking cessation as shown in Table 3.

Table 2. Present use of Korean Medicine treatment for smoking cessation

Variable	N	%
1. Have you ever given Korean medicine smoking cessation treatment (treatment for nicotine addiction and withdrawal symptoms)?		
Yes	130	51.4
No	123	48.6
2. Have you ever educated Korean medicine smoking cessation treatment in university or training course?		
Yes	90	35.6
No	163	64.4
3. What symptoms have you treated? (multiple answer allowed)		
Nicotine addiction	99	42.7
Psychological symptoms including depression, anxiety, irritation, etc.	56	24.1
Nausea, weight gain	17	7.3
Headache	21	9.1
Insomnia	14	6
Indigestion	24	10.3
Other	1	0.4
4. What Korean medicine smoking cessation treatment methods have you tried?		
Aromatherapy	1	0.8
Acupuncture	20	15.4
Ear acupuncture	97	74.6
Herbal medicine (granule type)	6	4.6
Herbal medicine (decoction type)	3	2.3
Other	3	2.3
5. What do you think is the most effective Korean medicine based smoking cessation therapy(Identify the top 3)		
Aromatherapy	39	30.2
Acupuncture	73	56.6
Ear acupuncture	123	95.3
Herbal medicine (granule type)	44	34.1
Herbal medicine (decoction type)	41	31.8
Moxibustion	2	1.6
Cupping	5	3.9
Korean medicine manual therapy such as Chuna	5	3.9
Other	20	15.5

Table 3. Ideal treatment for symptoms accompanying smoking cessation

	EA	MA	HM (G type)	HM (D type)	Aroma therapy	Other
Nicotine addiction	97	20	6	3	1	3
Psychological symptoms	46	25	3	6	2	1
Nausea, weight gain	13	10	4	4	–	–
Headache	16	10	5	1	–	–
Insomnia	7	9	3	2	2	–
Indigestion	19	8	2	3	–	–

EA; Ear acupuncture, MA; Manual acupuncture, HM; Herbal medicine, G; granule, D; decoction

3. Advantages and disadvantages related to Korean medicine based smoking cessation treatment

Regarding the advantages of a Traditional Korean medicine based smoking cessation methods, 53.4% (n=135) respondents answered that TKM based smoking cessation protocols had fewer adverse events, n=48.2% (n=122) respondents answered that TKM methods can stimulate acupoints frequently to control in everyday life., 46.2% (n=117) respondents answered that TKM methods change the taste of cigarettes which

helps an individual quit smoking., 30.8% (n=78) respondents answered that TKM methods gave them an opportunity for in-depth consultation with the patient on smoking cessation in the course of the treatment, while 30.4% (n=77) respondents answered that TKM methods enabled the treatment of the vulnerable group (adolescents, pregnant women, etc.). Regarding disadvantages of Traditional Korean medicine based smoking cessation methods, 31.9%(n=126) respondents answered that there was lack of evidence of the benefits of such smoking cessation therapies, 28.6% (n=113) answered that patients had to

Table 4. Advantages and disadvantages of smoking cessation therapies in Korean medicine

Variable	N	%
1. What are the advantages are of a Korean medicine based smoking cessation treatment?		
It has fewer adverse events,	135	53,4
Since it can stimulate acupoints frequently to achieve better control in everyday life,	122	48,2
A variety of withdrawal symptoms can be controlled by the Korean medicine treatment,	117	46,2
It changes the taste of cigarettes to help one quit smoking	102	40,3
As in-depth consultation with the patient on smoking cessation in the course of the treatment is possible,	78	30,8
It enables treatment of the vulnerable (adolescents, pregnant women, etc.)	77	30,4
Other	4	1,6
2. What are the disadvantages of a Korean medicine based smoking cessation therapy?		
It takes long time	51	12,9
Patients need to visit frequently (high number of visits)	113	28,6
Patients complain of discomfort (pain, skin symptoms, Etc)	88	22,3
Lack of evidence of the benefits of such smoking cessation therapy	126	31,9
Other	17	4,3

visit frequently which resulted in high number of visits. Approximately, a quarter (22.3%, n=88) of respondents answered that with TKM methods patients complained of discomfort (pain, skin symptoms, Etc.) while 12.9% (n=51) respondents answered that TKM methods needed to be used for long time.

IV. Discussion

This survey assessed KMDs' present usage, perception of smoking cessation therapies in TKM and their drawbacks. Smoking is a direct or indirect cause of lung cancer, cardiovascular diseases, and various cancers⁶⁻⁸. Recently, various laws have been implemented in various countries to prevent the harmful effects of smoking, and smokers are implementing various measures to quit smoking⁹⁻¹². In Korea, various smoking cessation policies are being implemented according to the National Health Promotion Act¹³. In particular, various smoking cessation therapies, counselling for smoking cessation, and the purchase of smoking cessation aids including nicotine patches have been subsidized.

However, complementary and alternative therapies, including acupuncture and herbal medicine, which have been used for smoking cessation, have been excluded from this subsidy^{3-5,14}. In this study, the present status of smoking cessation therapies in TKM and their advantages and disadvantages, were investigated. According to previous similar survey targeted on dental staff, advice was largely used method for cessation counselling and nicotine patch and drug were rare recommended¹⁵.

According to the results of the study, more than half of TKM doctors answered that they were not practicing smoking cessation therapy. This may be related to the fact that the majority of TKM practitioners have not been trained in

smoking cessation therapy.

The most frequently used treatments for smoking cessation were ear acupuncture (EA) and acupuncture, and many TKM doctors considered these to be the most effective treatments. Herbal medicines and other therapies were used relatively unusual since these are not covered by medical insurance.

The advantages of TKM-based smoking cessation therapies include that this have the fewer adverse events. In addition, this can provide better control of withdrawal symptoms frequently in everyday life by sustained stimulation. Disadvantages include the long treatment duration and the requirement of frequent visits to the doctor. The greatest disadvantage is the lack of sufficient evidence of the effectiveness of these therapies.

The greatest limitation of this study was the low response rate. Hence, although we have been able to obtain information on the currently used smoking cessation therapies, and KMDs' opinions on their strengths and weaknesses, our results cannot be generalized. The reason for this low response rate was that TKM doctors are not too interested in smoking cessation therapy. This suggests that many TKM doctors do not perform smoking cessation therapy since TKM-based smoking cessation therapies are uncompetitive compared to other medical treatments.

However, the effectiveness of smoking cessation supplements has not yet been sufficiently proven, and adverse events have also been reported. More studies on complementary and alternative therapies for smoking cessation, including acupuncture, need to be performed. In addition, education regarding smoking cessation protocols needs to be provided in a more systematic manner at TKM universities. To achieve smoking cessation, multiple counselling and treatment methods need to be used, and complementary and alternative therapies need to be actively considered. Further clinical studies and policy considerations should

be considered in the future.

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None

Competing interest

The authors declare that they have no competing interests.

Author Contributions

JAL, SJ and SP designed and conceived the whole study, JAL and SJ analysed the data, SP, SJ and JAL made the questionnaire,

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