

Factors associated with Utilization and Satisfaction of Traditional Korean Medicine in Korea: A National survey[†]

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Abstract

Objective : To assess the utilization patterns and satisfaction factors of Traditional Korean Medicine(TKM) in Korea.

Method : The study design of this paper is from a nationally representative random e-mails and interview surveys. In this survey, we asked 2000 Korean adults between the ages of 20 and 69, whether they have used TKM in the past three years and if so, what were their experiences and how satisfied they were with the care they have received.

Results : Sixty percent of respondents(n=1239) answered that they had used TKM in the past three years. The odds of using TKM were higher in female(OR 1.48; 95% CI 1.24-1.78) and academic backgrounds of university graduate or beyond (OR 1.27; 95% CI 1.01-1.60), and lower in unmarried person (OR 0.68; 95% CI 0.55-0.84) in the multivariable analysis. The most frequent purpose for seeking TKM and receiving treatment was to 'treat illness'. In addition, the use of herbal medicine among types of TKM is statistically significant in sexual groupings. 748(60.4%) among TKM users responded that they had a satisfying experience during TKM treatment. In multivariable logistic model, the odds of satisfaction from using TKM were higher in employed groups(OR 1.34; 95% CI 1.02-1.77), the reason for using of personalized medicine into TKM(OR 1.50; 95% CI 1.00-2.26).

Conclusion : Korean traditional medicine doctors need to develop and provide the personalized medicine for the group of high utilization rate and satisfaction, and make strategies to disseminate TKM utilization for the group of lower utilization.

Key words : Traditional Korean Medicine, National survey, Utilization, Satisfaction

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I. Introduction

Korea, along with China and Vietnam, is one of the few countries in which Traditional Korean Medicine(TKM) is recognized by the government as form of medicine and licenses are issued to those who complete the required education and training(1, 2).Furthermore, the TKM has been practiced for a long time in Korea and TKM doctors have played a significant role in providing healthcare services in this country.

But, like in many other countries that have become 'westernized', TKM is no longer mainstream medicine in Korea. Only 15.8% of clinics and hospitals registered to the Health Insurance Review and Assessment Service practice TKM and only 4.2% of the reimbursement by the National Health Insurance Corporation is a result of TKM(3). In other words, TKM has been losing ground to western medicine since the introduction of western medicine and science to Korea in the early 1900s. Nevertheless, many Koreans are still using TKM and are satisfied.

In an era where patient or consumer satisfaction is valued, we attempted to assess the utilization patterns and patient satisfaction of TKM through a national survey.

II. Methods

1. Study population and study protocol

The study design of this paper is from a nationally representative random e-mails and interview surveys. A total of 2000 Korean adults over the age of 20 were selected and the participants received written consent from the pool. The proportion in terms of sex, age, and region was allocated to match the proportion reported

in the 2005 national census. After reflecting the results of a pilot survey of 20 adults, a survey was conducted of 2000 adults over the age of 20, either via the internet (1880 adults under the age 60) or a face-to-face interview (120 adults over the age 60) between December 20th 2007 and January 5th 2008.

2. Structure and content of the survey

The survey consisted of two parts; TKM utilization pattern and patient satisfaction with TKM. Korean adults taking this survey were asked about their recent experience with TKM, type of TKM, concurrent use of western medicine, purpose for using TKM, and barriers from using TKM. They were also asked about their satisfaction with TKM and the perceived effect of TKM.

3. Data acquisition and statistical analysis

The responses to the survey questions were compiled in a database after reviewing their completeness. Frequencies and proportions of TKM experience and satisfaction on TKM were determined according to characteristics of respondents. Statistical analysis was performed using SAS version 9.1 (SAS Institute Inc, Cary, NC, USA). Chi-square test was used to compare the difference in TKM experience between different subsets of respondents. Also, we performed a chi-square test to analyze the difference of reasons for seeking TKM, and types of TKM used according to sex and marital status. Logistic regression analyses were performed to evaluate the factors associated with TKM use and with satisfaction. A p-value of <0.05 was considered statistically significant.

III. Results

1. Sample characteristics

A total of 2000 adults (age >20 or older) responded to the survey. Table 1 presents the base-line characteristics of respondents whether to use TKM.

Significant differences were found in the sex, occupation and marital status. The group with greater proportion of population with TKM

experience than without TKM experience, were, female ($P < .0001$), was married ($P = .0004$) and was unemployed ($P = .0078$).

2. Factors related to using TKM in univariable and multivariable analysis

The univariable analyses showed that a responder's sex, occupation and marital status influenced the responder's experience of TKM. But, the results of multivariable analysis of

(Table 1) Demographic characteristics of the respondents (n=2,000)

	With TKM experience (n=1,239)	Without TKM experience (n=761)	P
Sex*			
Male	573 (46.2%)	427 (56.1%)	<.0001
Female	666 (53.8%)	334 (43.9%)	
occupation*			
Unemployed#	419(33.8%)	214(28.1%)	0.0078
employed	820(66.1%)	547(71.9%)	
Marital status*			
Married	872 (70.4%)	477 (62.7%)	0.0004
Single/never married	323(26.1%)	262(34.4%)	
Divorced/widowed	44 (3.5)	22 (2.9)	
Age(years)			
<60	1,097 (88.5%)	687 (90.3%)	0.2358
60-69	142 (11.5%)	74 (9.7%)	
Annual household income			
<\$40,000	557(44.96%)	377(49.54%)	0.0804
\$40,000<\$60,000	488(39.39%)	263(34.56%)	
<\$60,000	194(15.66%)	121(15.90%)	
Education			
High school or less	369(29.8%)	237(31.1%)	0.5311
College	250(20.2%)	152(20.0%)	
University or more	620(50.0%)	372(48.9%)	
Region			
Capital	344 (27.8%)	229 (30.1%)	0.4694
Metropolitan	352 (28.4%)	202 (26.5%)	
Etc	543 (43.8%)	330 (43.4%)	

including house wife, student

* p-value < 0.05 by chi-square test

factors that occupation was not a significant factor and responders with academic background of university education or higher were more likely to have TKM experiences than responders with less than high school education to use TKM (Table 2).

3. Reason, type of TKM therapy among the TKM users

The reasons for using TKM were analyzed by sex and marital status. The most frequent purpose for seeking TKM was 'to treat illness', followed by 'for well-being' and 'to enhance health status',

but it is not statistically significant. The most frequently received treatment was acupuncture, followed by herbal medicine. Especially, the herbal medicine is statistically significant in sex group (Table 3, 4).

4. Factors association with satisfaction among TKM users

Of the 1239 respondents with recent experience of TKM, 748(60.4%) responded that they had a satisfying experience. In multivariable logistic model, employed person had the higher odds of satisfaction with TKM than unemployed person

<Table 2> Univariable and Multivariable logistic regression model for TKM use among respondents (n=2000)

	Univariate		Multivariable	
	Odds ratio	95% CI	Odds ratio	95% CI
Sex				
Male	1,00		1,00	
Female	1,48	(1,24-1,78)	1,45	(1,19-1,77)
Occupation				
Unemployed	1,00		1,00	
Employed	0,77	(0,63-0,93)	0,86	(0,69-1,07)
Marital status				
Married	1,00		1,00	
Not married	0,67	(0,55-0,82)	0,68	(0,55-0,84)
Divorced/widowed [†]	1,09	(0,65-1,85)	1,12	(0,66-1,92)
Age(years)				
<60	1,00		1,00	
60-69	1,20	(0,89-1,62)	1,30	(0,92-1,83)
Annual household income				
<\$40,000	1,00		1,00	
\$40,000<\$60,000	1,26	(1,03-1,53)	1,21	(0,98-1,49)
<\$60,000	1,09	(0,84-1,41)	1,07	(0,81-1,41)
Education				
Less than high school	1,00		1,00	
College	1,06	(0,82-1,37)	1,34	(1,00-1,79)
University or beyond	1,07	(0,87-1,32)	1,27	(1,01-1,60)
Region				
Capital	1,00		1,00	
Metropolitan	1,16	(0,91-1,48)	1,25	(0,97-1,62)
Etc	1,10	(0,88-1,36)	1,17	(0,93-1,47)

〈Table 3〉 Patients' purposes and types of TKM therapies among the TKM users by sex groups (n=1239)

	Male (n=573)	Female (n=666)	P
Reason for seeking TKM			
Treat illness	330(57.59%)	354(53.15%)	0.3614
for well-being, enhance health status	125(21.83%)	159(23.87%)	
unsatisfied with western medicine	35(6.11%)	66(9.91%)	
TKM is personalized medicine	68(11.87%)	66(9.91%)	
Etc	15(2.62%)	21(3.15%)	
Type of OM used [†]			
acupuncture	475(82.9%)	542(81.4%)	0.5044
moxivation	218(38.1%)	272(40.8%)	0.3224
Cupping	212(45.6%)	253(38.0%)	0.7245
Chuna	42(7.3%)	44(6.6%)	0.6546
Herbal medicine*	356(62.1%)	467(70.1%)	0.0031
Etc	247(43.1%)	319(47.9%)	0.0973

* p-value <0.05 by chi-square test

† double respond available

〈Table 4〉 Patients' purposes and types of TKM therapies among the TKM users by marital status groups (n=1239)

	Married (n=872)	Not married (n=323)	Divorced /widowed (n=44)	P
Reason for seeking TKM				
Treat illness	484(55.5%)	170(52.6%)	30(68.2%)	0.7356
for well-being, enhance health status	196(22.5%)	83(25.7%)	5(11.4%)	
unsatisfied with western medicine	70(8.0%)	27(8.4%)	4(9.1%)	
TKM is personalized medicine	98(11.2%)	32(9.9%)	4(9.1%)	
Etc	24(2.8%)	11(3.4%)	1(2.3%)	
Type of TKM used [†]				
Acupuncture	727(83.4%)	253(78.3%)	37(84.1%)	0.1563
Moxivation	360(41.3%)	112(34.7%)	18(40.9%)	0.1185
Cupping	350(40.1%)	98(30.3%)	17(38.6%)	0.0159
Chuna	67(7.7%)	16(5.0%)	3(6.8%)	0.1776
Herbal medicine	589(67.6%)	203(62.9%)	31(70.5%)	0.3736
Etc	428(49.1%)	117(36.2%)	21(47.7%)	0.0024

† double respond available

(OR 1.34; 95% CI 1.02–1.77) and the reason for TKM use in person with higher satisfaction is that TKM is a personalized medicine (OR 1.50; 95% CI 1.00–2.26). Participants who used many kinds of treatment method at the same time were more likely to be satisfied with TKM (2 kinds

of TKM—OR 1.53; 95% CI 1.10–2.11, 3 kinds of TKM—OR 2.04; 95% CI 1.44–2.88, 4 kinds or more—OR 2.43; 95% CI 1.76–3.35).

When asked what made them satisfied, the most frequent response was 'good treatment effect' (85.3%), followed by 'treatment seems to

be a good fit with my body' (45.3%), and 'kind counseling by the doctor' (29.3%). The leading cause of dissatisfaction was the high cost of TKM (31.5%), followed by 'no treatment effect'

(28.3%), 'diagnosis and treatment differs from clinic to clinic' (23.8%), and 'treatment takes too long' (23.8%)(Table 5).

〈Table 5〉 Factors associated with satisfaction among TKM users (n=748)

	Satisfied (N=748)	Univariate		Multivariable	
		Odds ratio	95% CI	Odds ratio	95% CI
Sex					
Male	350(46.8%)	1.00		1.00	
Female	398(53.2%)	0.95	(0.75-1.19)	1.04	(0.80-1.35)
Occupation					
Unemployed	233(31.2%)	1.00		1.00	
Employed	515(68.9%)	1.35	(1.06-1.71)	1.34	(1.02-1.77)
Marital status					
Married	540(72.2%)	1.00		1.00	
Not married	178(23.8%)	0.76	(0.58-0.98)	0.86	(0.65-1.14)
Others	30(4.0%)	1.32	(0.69-2.52)	1.34	(0.68-2.66)
Age(years)					
<60	656(87.7%)	1.00		1.00	
60-69	92(12.3%)	1.24	(0.86-1.78)	1.10	(0.71-1.71)
Annual household income					
<\$40,000	324(43.3%)	1.00		1.00	
\$40,000<\$60,000	291(38.9%)	1.06	(0.83-1.36)	1.00	(0.76-1.30)
<\$60,000	133(17.8%)	1.57	(1.11-2.22)	1.40	(0.97-2.03)
Education					
Less than high school	230(30.8%)	1.00		1.00	
College	132(17.6%)	0.68	(0.48-0.94)	0.84	(0.58-1.22)
University or beyond	386(51.6%)	1.00	(0.76-1.30)	0.96	(0.71-1.30)
Region					
Capital	208(27.8%)	1.00		1.00	
Metropolitan	213(28.5%)	1.00	(0.74-1.36)	1.07	(0.77-1.49)
Etc	327(43.7%)	0.99	(0.75-1.31)	1.10	(0.82-1.49)
Reason for seeking TKM					
Treat illness	416(55.6%)	1.00		1.00	
enhance health status	167(22.3%)	0.92	(0.69-1.22)	1.26	(0.91-1.75)
unsatisfied with Western medicine	61(8.2%)	0.98	(0.64-1.51)	0.97	(0.63-1.50)
TKM is personalized medicine	91(12.2%)	1.36	(0.92-2.02)	1.50	(1.00-2.26)
Etc	13(1.7%)	0.36	(0.18-0.73)	0.41	(0.20-0.84)
No. of experienced TKM	<.001 (Cochran-Armitage trend)				
One kind of TKM	129(17.3%)	1.00			
2 kinds of TKM	183(24.6%)	1.53	(1.10-2.11)		
3 kinds of TKM	171(23.0%)	2.04	(1.44-2.88)		
4 kinds or more	261(35.1%)	2.43	(1.76-3.35)		

IV. Discussion

Previous reports about the use of TKM have shown utilization rate ranges between 36 - 53% in Korea(4-6). Complementary and alternative medicine is used by 20% of the population in the Netherlands, 21.1% in the UK, 29.6% in US, 29.9% Lebanon, 48.5% in the Australia, 49% in France, 64% in the Germany and 86.1% in Ghana (7-10).

But, the comparison of the results is limited because of target population of the studies are different. The studied Korean populations in these reports were either confined to a single community or patients with a specific diagnosis. The discrepancy between our results and the previous reports can be readily explained by the fact that our survey was a national survey and as shown in our results, many people seek TKM to enhance their health.

Most survey data on complementary and alternative medicine(CAM) use, agree with the present findings that it is predominantly female, affluent, middle aged individuals who tend to try CAM(8, 9, 11).

For many years, the 'tailored' treatment of TKM has been viewed as a virtue, but there seems to be a change and the 'tailored' treatment is now seen as non-standardized. However, participants' satisfactions with TKM have associated with TKM being a personalized medicine. This is an advantage for TKM and should be promoted because the public wants this.

These results suggest that the majority of Koreans use TKM, usually to treat their illness or to enhance their health with herbal medicine and acupuncture, especially with higher usage rate in female, married and academic backgrounds of university graduate or beyond. Satisfaction with the received TKM was 60%. In addition, the higher satisfaction group is the

group with employed participants and the group which received complex TKM treatment and the reason for the use of TKM is that TKM is a personalized medicine. Based on these findings, we suggest that Korean traditional medicine doctors need to develop and provide the personalized medicine for the group of high utilization rate and satisfaction, and to make strategies to disseminate TKM utilization for the group of lower utilization.

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